E-Library

Yasir ali mmutni

ACKNOWLEDGEMENT

At every outset I express my gratitude to almighty lord for showering his grace and blessings upon me to complete this project.

Although our name appears on the cover of this book, many people had contributed in some form or the other form to this project Development. We could not done this project without the assistance or support of each of the following we thank you all.

I wish to place on my record my deep sense of gratitude to my project guide, Mrs. Nazee Mam Software Solutions, for his constant motivation and valuable help through the project work. Express my gratitude to Mr. Rauf Sir Head of Department of Computer Sciences for his valuable suggestions and advices throughout the MSc course. I also extend my thanks to other Faculties for their Cooperation during my Course.

Finally I would like to thank my friends for their cooperation to complete this project.

By: Ms.c yasir ali mmutni alanbaky

ABSTRACT

Developing a E-Library Website to promote a greater count of students to splurge into the field of Education. It integrates the benefits of a online library with the convenience of a Physical library online learning environment, minus the commuting hazards and expenses. It will usher in the immense flexibility and sophistication in the existing learning platform structures, with the perfect blend of synchronous and asynchronous interaction. It provides a means of collaborative learning for the students.

The educational methodology utilized for the concept of the Online E- library reflects asynchronous group communications and collaborative approaches to education and training. The student is an active part of a learning group but proceeds to learn and understand on an individual basis independent of the speed of other learners in the group.

The E – Library is provide many books and video to teaching and learning environment located within a computer-mediated communication system. The objectives of a E-Library is to improve access to advanced educational experiences by allowing students and instructors to participate in remote

learning communities using personal computers at home or at work; and to improve the quality and effectiveness of education by using the E- library website to support a collaborative learning process. By collaborative learning is meant a learning process that emphasizes group or

cooperative efforts among

Table of Contents

1. INTRODUCTION

- 1.1 INTRODUCTION TO PROJECT
- 1.2 ORGANIZATION PROFILE
- 1.3 PURPOSE OF THE SYSTEM
- 1.4 PROBLEMS IN EXISTING SYSTEM
- 1.5 SOLUTION OF THESE PROBLEMS

2. SYSTEM ANALYSIS

- 2.1 INTRODUCTION
- 2.2 ANALYSIS MODEL
- 2.3 STUDY OF THE SYSTEM
- 2.4 SYSTEM REQUIREMENT SPECIFICATIONS
- 2.5 PROPOSED SYSTEM
- 2.6 INPUT AND OUTPUT
- 2.7 PROCESS MODULES USED WITH JUSTIFICATION

3. FEASIBILITY REPORT

3.1 TECHNICAL FEASIBILITY

- 3.2 OPERATIONAL FEASIBILITY
- 3.3 ECONOMICAL FEASIBILTY

4. SOFTWARE REQUIREMENT SPECIFICATIONS

- 4.1 FUNCTIONAL REQUIREMENTS
- 4.2 PERFORMANCE REQUIREMENTS

5. SELECTED SOFTWARE

- 5.1 INTRODUCTION TO .NET FRAME WORK
- 5.2 ASP.NET
- 5.3 C#.NET
- 5.4 SQL SERVER

6. SYSTEM DESIGN

- 6.1 INTRODUCTION
- 6.2 NORMALIZATION
- 6.3 E-R DIAGRAM
- 6.4 DATA FLOW DIAGRAMS
- 6.5 DATA DICTIONARY
- 6.6 UML DIAGRAMS

7. OUTPUT SCREENS

8. SYSTEM TESTING AND IMPLEMENTATION

8.1 INTRODUCTION

- 8.2 STRATEGIC APPROACH OF SOFTWARE TESTING
- 8.3 UNIT TESTING
- 8.4 TEST CASES

9. SYSTEM SECURITY

- 9.1 INTRODUCTION
- 9.2 SECURITY IN SOFTWARE
- 10. CONCLUSION
- 11. FUTURE ENHANCEMENTS

BIBLOGRAPHY

1.1 INTRODUCTION TO PROJECT

The E- library is a web based project.

This project is aimed to develop online learning courses.

Developing a E- library to promote a greater count of students to splurge into the field of Education. It integrates the benefits of a physical classroom with the convenience of a 'no-physical-bar' virtual learning environment, minus the commuting hazards and expenses. It will usher in the immense flexibility and sophistication in the existing learning platform structures, with the perfect blend of synchronous and asynchronous interaction. It provides a means of collaborative learning for the students.

1.2ORGANIZATION PROFILE

Software Solutions is an IT solution provider for a dynamic environment where business and technology strategies converge. Their approach focuses on new ways of business combining IT innovation and adoption while also leveraging an organization's current IT assets. Their work with large global corporations and new products or services and to implement prudent business and technology strategies in today's environment.

Xxxxxxx's RANGE OF EXPERTISE INCLUDES:

- Software Development Services
- Engineering Services
- Systems Integration
- Customer Relationship Management
- Product Development
- Electronic Commerce
- Consulting
- IT Outsourcing

We apply technology with innovation and responsibility to achieve two broad objectives:

- Effectively address the business issues our customers face today.
- Generate new opportunities that will help them stay ahead in the future.

THIS APPROACH RESTS ON:

- A strategy where we architect, integrate and manage technology services and solutions we call it AIM for success.
- A robust offshore development methodology and reduced demand on Students resources.
- A focus on the use of reusable frameworks to provide cost and times benefits.

They combine the best people, processes and technology to achieve excellent results - consistency. We offer customers the advantages of:

SPEED:

They understand the importance of timing, of getting there before the competition. A rich portfolio of reusable, modular frameworks helps jump-start projects. Tried and tested methodology ensures that we follow a predictable, low - risk path to achieve results. Our track record is testimony to complex projects delivered within and evens before schedule.

EXPERTISE:

Our teams combine cutting edge technology skills with rich domain expertise. What's equally important - they share a strong customer orientation that means they actually start by listening to the customer. They're focused on coming up with solutions that serve customer requirements today and anticipate future needs.

A FULL SERVICE PORTFOLIO:

They offer customers the advantage of being able to Architect, integrate and manage technology services. This means that they can rely on one, fully accountable source instead of trying to integrate disparate multi vendor solutions.

SERVICES:

E-Library is providing its services to students which are in the field of computer, programming networking, Database etc with their rich expertise and experience and information technology they are in best position to provide books, Vedios to distinct student's requirements.

1.3PURPOSE OF THE PROJECT

The project is fully integrated with Students, Teachers and developer in a manner that is easily manageable, time saving and relieving one form semi automated. Developing an E-Library Website to promote a greater count of students to splurge into the field of Education. It integrates the benefits of a physical classroom with the convenience of a 'no-physical-bar' virtual learning environment, minus the commuting hazards and expenses. It will usher in the immense flexibility and sophistication in the existing learning platform structures, with the perfect blend of synchronous and asynchronous interaction. It provides a means of collaborative learning for the students.

The educational methodology utilized for the concept of the Virtual Classroom (a classroom in an electronic space) reflects asynchronous group communications and collaborative approaches to education and training. The student is an active part of a learning group but proceeds to learn and understand

on an individual basis independent of the speed of other learners in the group.

The E-Library is a teaching and learning environment located within a computer-mediated communication system. The objectives of a E-Library website are to improve access to advanced educational experiences by allowing students and instructors to participate in remote learning communities using personal computers at home or at work; and to improve the quality and effectiveness of education by using the computer to support a collaborative learning process. By collaborative learning is meant a learning process that emphasizes group or cooperative efforts among faculty and students, active participation and interaction on the part of both students and instructors, and new knowledge that emerges from an active dialog among those who are sharing ideas and information.

1.4PROBLEM IN EXISTING SYSTEM

In this existing system, the user hast to download the books and video training kits, once delivered course cannot be repeated. Flexibility of multiple courses learning is not possible in the system. And also the user has to copy important notes. If any exams are conducting he has to attend the exams. The course should be finished in time. Maintaining the data relating students and course not in secured manner. This system maintains the data in the form of excel sheets and devices.

SOLUTION OF THESE PROBLEMS

The development of this site contains the following activities, which try to automate the entire process keeping in the view of database integration approach.

- User Friendliness is provided in the application with various controls provided by system Rich User Interface.
- It can be accessed over the Internet.
- The user information files can be stored in centralized database which can be maintained by the system.

- This can give the good security for user information because data is not in client machine.
- Authentication is provided for this application only registered members can access.

As the E-library is one that aims to give the student an experience equal to or better than the sort they would find in a other sources, there are obviously many advantages of the E-Library to the student, as well as the teacher (or instructor) and the associated educational institution.

SYSTEM ANALYSIS

2.1 INTRODUCTION

After analyzing the requirements of the task to be performed, the next step is to analyze the problem and understand its context. The first activity in the phase is studying the existing system and other is to understand the requirements and domain of the new system. Both the activities are equally important, but the first activity serves as a basis of giving the functional specifications and then successful design of the proposed system. Understanding the properties and requirements of a new system is more difficult and requires creative thinking and understanding of existing running system is also difficult, improper understanding of present system can lead diversion from solution.

2.2 ANALYSIS MODEL

SDLC METHDOLOGIES

This document play a vital role in the development of life cycle (SDLC) as it describes the complete requirement of the system. It means for use by developers and will be the basic during testing phase. Any changes made to the requirements in the future will have to go through formal change approval process.

SPIRAL MODEL was defined by Barry Boehm in his 1988 article, "A spiral Model of Software Development and Enhancement. This model was not the first model to discuss iterative development, but it was the first model to explain why the iteration models.

As originally envisioned, the iterations were typically 6 months to 2 years long. Each phase starts with a design goal and ends with a client reviewing the progress thus far. Analysis and engineering efforts are applied at each phase of the project, with an eye toward the end goal of the project.

The steps for Spiral Model can be generalized as follows:

• The new system requirements are defined in as much details as possible. This usually involves interviewing a number of users representing all the external or internal users and other aspects of the existing system.

- A preliminary design is created for the new system.
- A first prototype of the new system is constructed from the preliminary design. This is usually a scaled-down system, and represents an approximation of the characteristics of the final product.
- A second prototype is evolved by a fourfold procedure:
 - 1. Evaluating the first prototype in terms of its strengths, weakness, and risks.
 - 2. Planning an designing the second prototype.
 - 3. Constructing and testing the second prototype.
- At the customer option, the entire project can be aborted if the risk is deemed too great. Risk factors might involved development cost overruns, operating-cost miscalculation, or any other factor that could, in the customer's judgment, result in a less-than-satisfactory final product.
- The existing prototype is evaluated in the same manner as was the previous prototype, and if necessary, another prototype is developed from it according to the fourfold procedure outlined above.
- The preceding steps are iterated until the customer is satisfied that the refined prototype represents the final product desired.
- The final system is constructed, based on the refined prototype.
- The final system is thoroughly evaluated and tested. Routine maintenance is carried on a continuing basis to prevent large scale failures and to minimize down time.

The following diagram shows how a spiral model acts like:

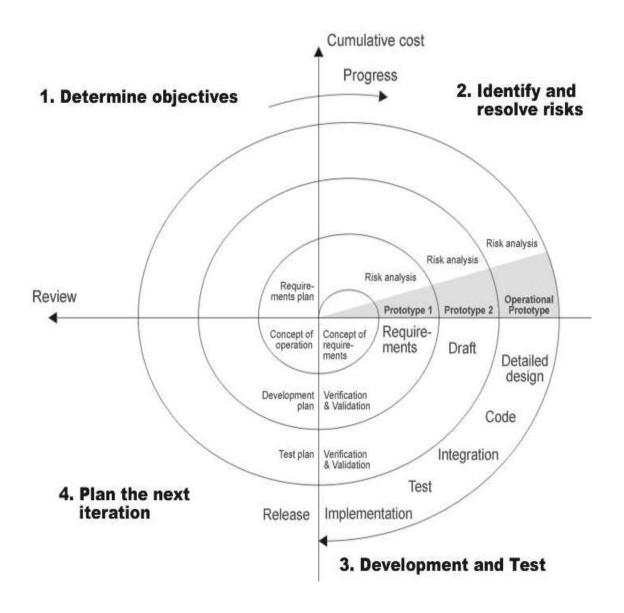


Fig 1.0-Spiral Model

2.3 STUDY OF THE SYSTEM

In the flexibility of the uses the interface has been developed a graphics concept in mind, associated through a browser interface. The GUI'S at the top level have been categorized as

- 1. Administrative user interface
- 2. The operational or generic user interface

The administrative user interface concentrates on the consistent information that is practically, part of the organizational activities and which needs proper authentication for the data collection. The interfaces help the administrations with all the transactional states like Data insertion, Data deletion and Data updating along with the extensive data search capabilities.

The operational or generic user interface helps the users upon the system in transactions through the existing data and required services. The operational user interface also helps the ordinary users in managing their own information helps the ordinary users in managing their own information in a customized manner as per the assisted flexibilities

NUMBER OF MODULES

The system after careful analysis has been identified to be presented with the following modules:

- Administrators / Managers
- Faculties
- Students
- Web Registration
- Virtual Training
- Exam Conducting

- Search
- Reports
- Authentication

Web Registration

The system has a process of registration. Every student need to submit his complete details in the form of registration. Whenever a student registration completed automatically student can get a user id and password. By using that user id and password student can log into the system. If registration process is completed successfully an email remainder is generated and sends to the citizen.

Faculty

Faculties can also download lectures, notes assignments, evaluate answer sheets and lectures, and other discussions in various formats as in the form of videos and power point presentations.

Students

Students can choose courses, books, lectures and view their membership and download many books and video lectures convenience through this web site only.

One student can register multiple courses. Download books ,videos PDF etc.

Authentication

Authentication is the process the where it provides security for application.

The system checks credentials whether the user is valid or not. If the user is valid system allows for authorization. Otherwise system will throw back and gives message.

System Requirement Specifications

Hardware Requirements:

- PIV 2.8 GHz Processor and Above
- RAM 512MB and Above
- HDD 40 GB Hard Disk Space and Above

Software Requirements:

- WINDOWS OS (XP / 2000 / 200 Server / 2003 Server)
- Visual Studio .Net 2008 Enterprise Edition
- Internet Information Server 5.0 (IIS)

- Visual Studio .Net Framework (Minimal for Deployment) version
 3.5
- SQL Server 2005 Enterprise Edition

PRAPOSED SYSTEM

To debug the existing system, remove procedures those cause data redundancy, make navigational sequence proper. To provide information about users on different level and also to reflect the current work status depending on organization. To build strong password mechanism.

NEED FOR WEBSITE

We all know the importance of Web. The world is moving ahead at lightning speed and everyone is running short of time. One always wants to get the information and perform a task he/she/they desire(s) within a short period of time and too with amount of efficiency and accuracy. The application areas for the web have been selected on the basis of following factors:

- Minimizing the manual records kept at different locations.
- There will be more data integrity.
- Facilitating desired information display, very quickly, by retrieving information from users.
- Facilitating various statistical information which helps in decision-making?

• To reduce manual efforts in activities that involved repetitive work.

Updating and deletion of such a huge amount of data will become easier.

FUNCTIONAL FEATURES OF THE MODEL

As far as the project is developed the functionality is simple, the objective of the proposal is to strengthen the functioning of Audit Status Monitoring and make them effective and better. The entire scope has been classified into five streams knows as Coordinator Level, management Level, Auditor Level, User Level and State Web Coordinator Level. The proposed software will cover the information needs with respect to each request of the user group viz. accepting the request, providing vulnerability document report and the current status of the audit.

2.6 INPUT AND OUTPUT

The major inputs and outputs and major functions of the system are follows:

Inputs:

- User enters his user id and password for login.
- User Create new folder for personnel usage.
- New user gives his completed personnel, address and phone details for registration.

Outputs:

- Users enter their own home page.
- The user defined folders can store in the centralized database.
- The new user's data will be stored in the centralized database.
- Different kind of reports is generated by users.

2.7 PROCESS MODEL USED WITH JUSTIFICATION

ACCESS CONTROL FOR DATA WHICH REQUIRE USER AUTHENTICAION

The following commands specify access control identifiers and they are typically used to authorize and authenticate the user (command codes are shown in parentheses)

USER NAME (USER)

The user identification is that which is required by the server for access to its file system. This command will normally be the first command transmitted by the user after the control connections are made (some servers may require this).

PASSWORD (PASS)

This command must be immediately preceded by the user name command, and, for some sites, completes the user's identification for access control. Since password information is quite sensitive, it is desirable in general to "mask" it or suppress type out.

Feasibility Report

Preliminary investigation examine project feasibility, the likelihood the system will be useful to the organization. The main objective of the feasibility study is to test the Technical, Operational and Economical feasibility for adding new modules and debugging old running system. All system is feasible if they are unlimited resources and infinite time. There are aspects in the feasibility study portion of the preliminary investigation:

- Technical Feasibility
- Operational Feasibility
- Economical Feasibility

3.1. TECHNICAL FEASIBILITY

The technical issue usually raised during the feasibility stage of the investigation includes the following:

- Does the necessary technology exist to do what is suggested?
- Do the proposed equipments have the technical capacity to hold the data required to use the new system?
- Will the proposed system provide adequate response to inquiries, regardless of the number or location of users?
- Can the system be upgraded if developed?
- Are there technical guarantees of accuracy, reliability, ease of access and data security?

Earlier no system existed to cater to the needs of 'Secure Infrastructure Implementation System'. The current system developed is technically feasible. It is a web based user interface for audit workflow at NIC-CSD. Thus it provides an easy access to the users. The database's purpose is to create, establish and maintain a workflow among various entities in order to facilitate all concerned users in their various capacities or roles. Permission to the users would be granted based on the roles specified.

Therefore, it provides the technical guarantee of accuracy, reliability and security. The software and hard requirements for the development of this project are not many and are already available in-

house at NIC or are available as free as open source. The work for the project is done with the current equipment

and existing software technology. Necessary bandwidth exists for providing a fast feedback to the users irrespective of the number of users using the system.

3.2. OPERATIONAL FEASIBILITY

Proposed projects are beneficial only if they can be turned out into information system. That will meet the organization's operating requirements. Operational feasibility aspects of the project are to be taken as an important part of the project implementation. Some of the important issues raised are to test the operational feasibility of a project includes the following: -

- Is there sufficient support for the management from the users?
- Will the system be used and work properly if it is being developed and implemented?
- Will there be any resistance from the user that will undermine the possible application benefits?

This system is targeted to be in accordance with the abovementioned issues. Beforehand, the management issues and user requirements have been taken into consideration. So there is no question of resistance from the users that can undermine the possible application benefits.

The well-planned design would ensure the optimal utilization of the computer resources and would help in the improvement of performance status.

3.3. ECONOMICAL FEASIBILITY

A system can be developed technically and that will be used if installed must still be a good investment for the organization. In the economical feasibility, the development cost in creating the system is evaluated against the ultimate benefit derived from the new systems. Financial benefits must equal or exceed the costs.

The system is economically feasible. It does not require any addition hardware or software. Since the interface for this system is developed using the existing resources and technologies available at NIC, There is nominal expenditure and economical feasibility for certain.



The software, Site Explorer is designed for management of web sites from a remote location.

INTRODUCTION

Purpose: The main purpose for preparing this document is to give a general insight into the analysis and requirements of the existing system or situation and for determining the operating characteristics of the system.

Scope: This Document plays a vital role in the development life cycle (SDLC) and it describes the complete requirement of the system. It is meant for use by the developers and will be the basic during testing phase. Any changes made to the requirements in the future will have to go through formal change approval process.

DEVELOPERS RESPONSIBILITIES OVERVIEW:

The developer is responsible for:

- Developing the system, which meets the SRS and solving all the requirements of the system?
- Demonstrating the system and installing the system at client's location after the acceptance testing is successful.
- Submitting the required user manual describing the system interfaces to work on it and also the documents of the system.
- Conducting any user training that might be needed for using the system.

• Maintaining the system for a period of one year after installation.

Output Media:

In the next stage it is to be decided that which medium is the most appropriate for the output. The main considerations when deciding about the output media are:

- The suitability for the device to the particular application.
- The need for a hard copy.
- The response time required.
- The location of the users
- The software and hardware available.

Keeping in view the above description the project is to have outputs mainly coming under the category of internal outputs. The main outputs desired according to the requirement specification are:

The outputs were needed to be generated as a hot copy and as well as queries to be viewed on the screen. Keeping in view these outputs, the format for the output is taken from the outputs, which are currently being obtained after manual processing. The standard printer is to be used as output media for hard copies.

INPUT DESIGN

Input design is a part of overall system design. The main objective during the input design is as given below:

- To produce a cost-effective method of input.
- To achieve the highest possible level of accuracy.
- To ensure that the input is acceptable and understood by the user.

INPUT STAGES:

The main input stages can be listed as below:

- Data recording
- Data transcription
- Data conversion
- Data verification
- Data control
- Data transmission
- Data validation
- Data correction

INPUT TYPES:

It is necessary to determine the various types of inputs. Inputs can be categorized as follows:

• External inputs, which are prime inputs for the system.

Internal inputs, which are user com

• Internal inputs, which are user communications with the system.

- Operational, which are computer department's communications to the system?
- Interactive, which are inputs entered during a dialogue.

ERROR AVOIDANCE

At this stage care is to be taken to ensure that input data remains accurate form the stage at which it is recorded up to the stage in which the data is accepted by the system. This can be achieved only by means of careful control each time the data is handled.

ERROR DETECTION

Even though every effort is make to avoid the occurrence of errors, still a small proportion of errors is always likely to occur, these types of errors can be discovered by using validations to check the input data.

DATA VALIDATION

Procedures are designed to detect errors in data at a lower level of detail. Data validations have been included in the system in almost every area where there is a possibility for the user to commit errors. The system will not accept invalid data. Whenever an invalid data is keyed in, the system immediately prompts the user and the user has to again key in the data and the system will accept the data only if the data is correct. Validations have been included where necessary.

The system is designed to be a user friendly one. In other words the system has been designed to communicate effectively with the user. The system has been designed with popup menus.

USER INTERFACE DESIGN

It is essential to consult the system users and discuss their needs while designing the user interface:

USER INTERFACE SYSTEMS CAN BE BROADLY CLASIFIED AS:

- 1. User initiated interface the user is in charge, controlling the progress of the user/computer dialogue. In the computer-initiated interface, the computer selects the next stage in the interaction.
 - 2. Website initiated interfaces

In the website initiated interfaces the computer guides the progress of the user/computer dialogue. Information is displayed and the user response of the computer takes action or displays further information.

USER_INITIATED INTERGFACES

User initiated interfaces fall into tow approximate classes:

1. Command driven interfaces: In this type of interface the user inputs commands or queries which are interpreted by the website.

2. Forms oriented interface: The user calls up an image of the form to his/her screen and fills in the form. The forms oriented interface is chosen because it is the best choice.

WEBSITE-INITIATED INTERFACES

The following website – initiated interfaces were used:

- 1. The menu system for the user is presented with a list of alternatives and the user chooses one; of alternatives.
- 2. Questions answer type dialog system where the computer asks question and takes action based on the basis of the users reply.

Right from the start the system is going to be menu driven, the opening menu displays the available options. Choosing one option gives another popup menu with more options. In this way every option leads the users to data entry form where the user can key in the data.

The design of error messages is an important part of the user interface design. As user is bound to commit some errors or other while designing a system the system should be designed to be helpful by providing the user with information regarding the error he/she has committed.

This application must be able to produce output at different modules for different inputs.

4.2. PERFORMANCE REQUIREMENTS

Performance is measured in terms of the output provided by the application.

Requirement specification plays an important part in the analysis of a system. Only when the requirement specifications are properly given, it is possible to design a system, which will fit into required environment. It rests largely in the part of the users of the existing system to give the requirement specifications because they are the people who finally use the system. This is because the requirements have to be known during the initial stages so that the system can be designed according to those requirements. It is very difficult to change the system once it has been designed and on the other hand designing a system, which does not cater to the requirements of the user, is of no use.

The requirement specification for any system can be broadly stated as given below:

- The system should be able to interface with the existing system
- The system should be accurate
- The system should be better than the existing system

The existing system is completely dependent on the user to perform all the duties.

SELECTED SOFTWARE



The **Microsoft .NET Framework** is a software technology that is available with several Microsoft Windows operating systems. It includes a large library of pre-coded solutions to common programming problems and a virtual machine that manages the execution of programs written specifically for the framework. The .NET Framework is a key Microsoft offering and is intended to be used by most new applications created for the Windows platform.

The pre-coded solutions that form the framework's Base Class Library cover a large range of programming needs in a number of areas, including user interface, data access, database connectivity, cryptography, web application development, numeric algorithms, and network communications. The class library is used by programmers, who combine it with their own code to produce applications.

Programs written for the .NET Framework execute in a software environment that manages the program's runtime requirements. Also part of the .NET Framework, this runtime environment is known as the Common Language Runtime (CLR). The CLR provides the appearance of an application virtual machine so that programmers need not consider the capabilities of the specific CPU that will execute the program. The CLR also provides other important services such as security, memory

management, and exception handling. The class library and the CLR together compose the .NET Framework.

Principal design features

Interoperability

Because interaction between new and older applications is commonly required, the .NET Framework provides means to access functionality that is implemented in programs that execute outside the .NET environment. Access to COM components is provided in the System.Runtime.InteropServices and System.EnterpriseServices namespaces of the framework; access to other functionality is provided using the P/Invoke feature.

Common Runtime Engine

The Common Language Runtime (CLR) is the virtual machine component of the .NET framework. All .NET programs execute under the supervision of the CLR, guaranteeing certain properties and behaviors in the areas of memory management, security, and exception handling.

Base Class Library

The Base Class Library (BCL), part of the Framework Class Library (FCL), is a library of functionality available to all languages using the .NET Framework. The BCL provides classes which encapsulate a number of common functions, including file

reading and writing, graphic rendering, database interaction and XML document manipulation.

Simplified Deployment

Installation of computer software must be carefully managed to ensure that it does not interfere with previously installed software, and that it conforms to security requirements. The .NET framework includes design features and tools that help address these requirements.

Security

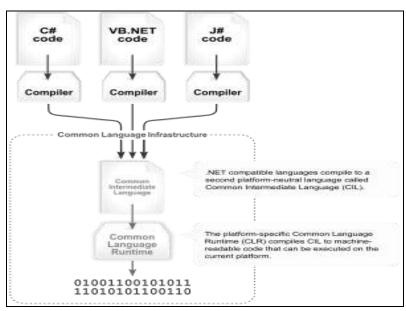
The design is meant to address some of the vulnerabilities, such as buffer overflows, that have been exploited by malicious software. Additionally, .NET provides a common security model for all applications.

Portability

The design of the .NET Framework allows it to theoretically be platform agnostic, and thus cross-platform compatible. That is, a program written to use the framework should run without change on any type of system for which the framework is implemented. Microsoft's commercial implementations of the framework cover Windows, Windows CE, and the Xbox 360. In addition, Microsoft specifications for the submits the Common Language Infrastructure (which includes the core class libraries, Common Type System, and the Common Intermediate Language), the C# language, and the C++/CLI language to both ECMA and the ISO, making them available as open standards. This makes it possible

for third parties to create compatible implementations of the framework and its languages on other platforms.

Architecture



Visual overview of the Common Language Infrastructure (CLI) Common Language Infrastructure

The core aspects of the .NET framework lie within the Common Language Infrastructure, or CLI. The purpose of the CLI is to provide a language-neutral platform for application development and execution, including functions for exception handling, garbage collection, security, and interoperability. Microsoft's implementation of the CLI is called the Common Language Runtime or CLR.

Assemblies

The intermediate CIL code is housed in .NET assemblies. As mandated by specification, assemblies are stored in the Portable Executable (PE) format, common on the Windows platform for all DLL and EXE files. The assembly consists of one or more files, one of which must contain the manifest, which has the metadata for the assembly. The complete name of an assembly (not to be confused with the filename on disk) contains its simple text name, version number, culture, and public key token. The public key token is a unique hash generated when the assembly is compiled, thus two assemblies with the same public key token are guaranteed to be identical from the point of view of the framework. A private key can also be specified known only to the creator of the assembly and can be used for strong naming and to guarantee that the assembly is from the same author when a new version of the assembly is compiled (required to add an assembly to the Global Assembly Cache).

Metadata

All CLI is self-describing through .NET metadata. The CLR checks the metadata to ensure that the correct method is called. Metadata is usually generated by language compilers but developers can create their own metadata through custom attributes. Metadata contains information about the assembly, and is also used to implement the reflective programming capabilities of .NET Framework.

Security

.NET has its own security mechanism with two general features: Code Access Security (CAS), and validation and verification. Code Access Security is based on evidence that is associated with a specific assembly. Typically the evidence is the source of the assembly (whether it is installed on the local machine or has been downloaded from the intranet or Internet). Code Access Security uses evidence to determine the permissions granted to the code. Other code can demand that calling code is granted a specified permission. The demand causes the CLR to perform a call stack walk: every assembly of each method in the call stack is checked for the required permission; if any assembly is not granted the permission a security exception is thrown.

When an assembly is loaded the CLR performs various tests. Two such tests are validation and verification. During validation the CLR checks that the assembly contains valid metadata and CIL, and whether the internal tables are correct. Verification is not so exact. The verification mechanism checks to see if the code does anything that is 'unsafe'. The algorithm used is quite conservative; hence

occasionally code that is 'safe' does not pass. Unsafe code will only be executed if the assembly has the 'skip verification' permission, which generally means code that is installed on the local machine.

.NET Framework uses appdomains as a mechanism for isolating code running in a process. Appdomains can be created and code loaded into or unloaded from them independent of other appdomains. This helps increase the fault tolerance of the application, as faults or crashes in one appdomain do not affect rest of the application. Appdomains can also be configured independently with different security privileges. This can help increase the security of the application by isolating potentially unsafe code. The developer, however, has to split the application into sub domains; it is not done by the CLR.

Class library

Namespaces in the BCL

System

System. CodeDom

System. Collections

System. Diagnostics

System. Globalization

System. IO

System. Resources

System. Text

System.Text.RegularExpressions

Microsoft .NET Framework includes a set of standard class libraries. The class library is organized in a hierarchy of namespaces. Most of the built in APIs are part of either System.* or Microsoft.* namespaces. It encapsulates a large number of common functions, such as file reading and writing, graphic rendering, database interaction, and XML document manipulation, among others. The .NET class

libraries are available to all .NET languages. The .NET Framework class library is divided into two parts: the **Base Class Library** and the **Framework Class Library**.

The **Base Class Library** (BCL) includes a small subset of the entire class library and is the core set of classes that serve as the basic API of the Common Language Runtime. The classes in mscorlib.dll and

some of the classes in System.dll and System.core.dll are considered to be a part of the BCL. The BCL classes are available in both .NET Framework as well as its alternative implementations including .NET Compact Framework, Microsoft Silver light and Mono.

The **Framework Class Library** (FCL) is a superset of the BCL classes and refers to the entire class library that ships with .NET Framework. It includes an expanded set of libraries, including Win Forms, ADO.NET, ASP.NET, Language Integrated Query, Windows Presentation Foundation, Windows Communication Foundation among others. The FCL is much larger in scope than standard libraries for languages like C++, and comparable in scope to the standard libraries of Java.

Memory management

The .NET Framework CLR frees the developer from the burden of managing memory (allocating and freeing up when done); instead it does the memory management itself. To this end, the memory allocated to instantiations of .NET types (objects) is done contiguously from the managed heap, a pool of memory managed by the CLR. As long as there exists a reference to an object, which might be either a direct reference to an object or via a graph of objects, the object is considered to be in use by the CLR. When there is no reference to an object, and it cannot be reached or used, it becomes garbage. However, it still holds on to the memory allocated to it. .NET Framework includes a garbage collector which runs periodically, on a separate thread from the application's thread, that enumerates all the unusable objects and reclaims the memory allocated to them.

The .NET Garbage Collector (GC) is a non-deterministic, compacting, mark-and-sweep garbage collector. The GC runs only when

a certain amount of memory has been used or there is enough pressure for memory on the system. Since it is not guaranteed when the conditions to reclaim memory are reached, the GC runs are non-deterministic. Each .NET application has a set of roots, which are pointers to objects on the managed heap (*managed objects*). These include references to static objects and objects defined as local variables or method parameters currently in scope, as well as objects referred to by CPU registers. When the GC runs, it pauses the application, and for each object referred to in the root, it recursively

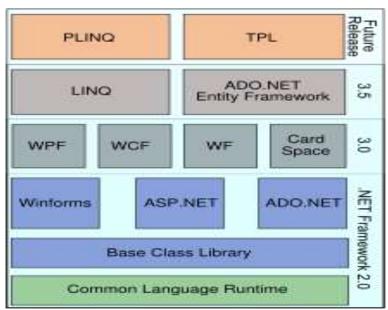
enumerates all the objects reachable from the root objects and marks them as reachable. It uses .NET metadata and reflection to discover the objects encapsulated by an object, and then recursively walk them. It then enumerates all the objects on the heap (which were initially allocated contiguously) using reflection. All objects not marked as reachable are garbage. This is the *mark* phase. Since the memory held by garbage is not of any consequence, it is considered free space. However, this leaves chunks of free space between objects which were initially contiguous. The objects are then *compacted* together, by using memory to copy them over to the free space to make them contiguous again. Any reference to an object invalidated by moving the object is updated to reflect the new location by the GC. The application is resumed after the garbage collection is over.

The GC used by .NET Framework is actually *generational*. Objects are assigned a *generation*; newly created objects belong to *Generation 0*. The objects that survive a garbage collection are tagged as *Generation 1*, and the Generation 1 objects that survive another collection are

Generation 2 objects. The .NET Framework uses up to Generation 2 objects. Higher generation objects are garbage collected less frequently than lower generation objects. This helps increase the efficiency of garbage collection, as older objects tend to have a larger lifetime than newer objects. Thus, by removing older (and thus more likely to survive a collection) objects from the scope of a collection run, fewer objects need to be checked and compacted.

Versions

Microsoft started development on the .NET Framework in the late 1990s originally under the name of Next Generation Windows Services (NGWS). By late 2000 the first beta versions of .NET 1.0 were released.



The .NET Framework Stack

The .NET Framework stack.

Version	Version Number	Release Date
1.0	1.0.3705.0	2002-01-05
1.1	1.1.4322.573	2003-04-01
2.0	2.0.50727.42	2005-11-07
3.0	3.0.4506.30	2006-11-06
3.5	3.5.21022.8	2007-11-09

5.2 ASP.NET

SERVER APPLICATION DEVELOPMENT

Server-side applications in the managed world are implemented through runtime hosts. Unmanaged applications host the common language runtime, which allows your custom managed code to control the behavior of the server. This model provides you with all the features of the common language runtime and class library while gaining the performance and scalability of the host server.

The following illustration shows a basic network schema with managed code running in different server environments. Servers such as IIS and SQL Server can perform standard operations while your application logic executes through the managed code.

SERVER-SIDE MANAGED CODE

ASP.NET is the hosting environment that enables developers to use the .NET Framework to target Web-based applications. However, ASP.NET is more than just a runtime host; it is a complete architecture for developing Web sites and Internet-distributed objects using managed code. Both Web Forms and XML Web services use IIS and ASP.NET as the publishing mechanism for applications, and both have a collection of supporting classes in the .NET Framework.

XML Web services, an important evolution in Web-based technology, are distributed, server-side application components similar to common Web sites. However, unlike Web-based applications, XML Web services components have no UI and are not targeted for browsers such as Internet Explorer and Netscape Navigator. Instead, XML Web services consist of reusable software components designed to be consumed by other applications, such as traditional client applications, Web-based applications, or even other XML Web services. As a result, XML Web services technology is rapidly moving application development and deployment into the highly distributed environment of the Internet.

If you have used earlier versions of ASP technology, you will immediately notice the improvements that ASP.NET and Web Forms offers. For example, you can develop Web Forms pages in any language that supports the .NET Framework. In addition, your code no longer needs to share the same file with your HTTP text (although it can continue to do so if you prefer). Web Forms pages execute in native machine language because, like any other managed application, they take full advantage of the runtime. In contrast, unmanaged ASP pages are always scripted and interpreted. ASP.NET pages are faster, more functional, and easier to develop than unmanaged ASP pages because they interact with the runtime like any managed application.

The .NET Framework also provides a collection of classes and tools to aid in development and consumption of XML Web services applications. XML Web services are built on standards such as SOAP (a remote procedure-call protocol), XML (an extensible data format), and WSDL (the Web Services Description Language). The .NET

Framework is built on these standards to promote interoperability with non-Microsoft solutions.

For example, the Web Services Description Language tool included with the .NET Framework SDK can query an XML Web service published on the Web, parse

its WSDL description, and produce C# or Visual Basic source code that your application can use to become a client of the XML Web service. The source code can create classes derived from classes in the class library that handle all the underlying communication using SOAP and XML parsing. Although you can use the class library to consume XML Web services directly, the Web Services Description Language tool and the other tools contained in the SDK facilitate your development efforts with the .NET Framework.

If you develop and publish your own XML Web service, the .NET Framework provides a set of classes that conform to all the underlying communication standards, such as SOAP, WSDL, and XML. Using those classes enables you to focus on the logic of your service, without concerning yourself with the communications infrastructure required by distributed software development.

Finally, like Web Forms pages in the managed environment, your XML Web service will run with the speed of native machine language using the scalable communication of IIS.

ACTIVE SERVER PAGES.NET

ASP.NET is a programming framework built on the common language runtime that can be used on a server to build powerful Web applications. ASP.NET offers several important advantages over previous Web development models:

- Enhanced Performance. ASP.NET is compiled common language runtime code running on the server. Unlike its interpreted predecessors, ASP.NET can take advantage of early binding, just-in-time compilation, native optimization, and caching services right out of the box. This amounts to dramatically better performance before you ever write a line of code.
- World-Class Tool Support. The ASP.NET framework is complemented by a rich toolbox and designer in the Visual Studio integrated development environment. WYSIWYG editing, drag-and-drop server controls, and automatic deployment are just a few of the features this powerful tool provides.
- Power and Flexibility. Because ASP.NET is based on the common language runtime, the power and flexibility of that entire platform is available to Web application developers. The .NET Framework class library, Messaging, and Data Access solutions are all seamlessly accessible from the Web. ASP.NET is also language-independent, so you can choose the language that best applies to your application or partition your application across many languages. Further, common language runtime interoperability guarantees that your existing investment in COM-based development is preserved when migrating to ASP.NET.

Simplicity. ASP.NET makes it easy to perform common tasks, from simple form submission and client authentication to deployment and site configuration. For

• example, the ASP.NET page framework allows you to build user interfaces that cleanly separate application logic from presentation code and to handle events in a simple, Visual Basic - like forms processing model. Additionally, the common language runtime simplifies development, with managed code services such as automatic reference counting and garbage collection.

- Manageability. ASP.NET employs a text-based, hierarchical configuration system, which simplifies applying settings to your server environment and Web applications. Because configuration information is stored as plain text, new settings may be applied without the aid of local administration tools. This "zero local administration" philosophy extends to deploying ASP.NET Framework applications as well. An ASP.NET Framework application is deployed to a server simply by copying the necessary files to the server. No server restart is required, even to deploy or replace running compiled code.
- Scalability and Availability. ASP.NET has been designed with scalability in mind, with features specifically tailored to improve performance in clustered and multiprocessor environments. Further, processes are closely monitored and managed by the ASP.NET runtime, so that if one misbehaves (leaks, deadlocks), a new process can be created in its place, which helps keep your application constantly available to handle requests.
- Customizability and Extensibility. ASP.NET delivers a well-factored architecture that allows developers to "plug-in" their code at the appropriate level. In fact, it is possible to extend or replace any subcomponent of the ASP.NET runtime with your own custom-written component. Implementing custom authentication or state services has never been easier.
- **Security.** With built in Windows authentication and per-application configuration, you can be assured that your applications are secure.

LANGUAGE SUPPORT

The Microsoft .NET Platform currently offers built-in support for three languages: C#, Visual Basic, and Java Script.

WHAT IS ASP.NET WEB FORMS?

The ASP.NET Web Forms page framework is a scalable common language runtime programming model that can be used on the server to dynamically generate Web pages.

Intended as a logical evolution of ASP (ASP.NET provides syntax compatibility with existing pages), the ASP.NET Web Forms framework has been

specifically designed to address a number of key deficiencies in the previous model. In particular, it provides:

- The ability to create and use reusable UI controls that can encapsulate common functionality and thus reduce the amount of code that a page developer has to write.
- The ability for developers to cleanly structure their page logic in an orderly fashion (not "spaghetti code").
- The ability for development tools to provide strong WYSIWYG design support for pages (existing ASP code is opaque to tools).

ASP.NET Web Forms pages are text files with an .aspx file name extension. They can be deployed throughout an IIS virtual root directory tree. When a browser client requests .aspx resources, the ASP.NET runtime parses and compiles the target file into a .NET Framework class. This class can then be used to dynamically process incoming requests.

(Note that the .aspx file is compiled only the first time it is accessed; the compiled type instance is then reused across multiple requests).

An ASP.NET page can be created simply by taking an existing HTML file and changing its file name extension to .aspx (no modification of code is required). For example, the following sample demonstrates a simple HTML page that collects a user's name and category preference and then performs a form post back to the originating page when a button is clicked:

ASP.NET provides syntax compatibility with existing ASP pages. This includes support for <% %> code render blocks that can be intermixed with HTML content within an .aspx file. These code blocks execute in a top-down manner at page render time.

CODE-BEHIND WEB FORMS

ASP.NET supports two methods of authoring dynamic pages. The first is the method shown in the preceding samples, where the page code is physically declared within the originating .aspx file. An alternative approach--known as the code-behind method--enables the page code to be more cleanly separated from the HTML content into an entirely separate file.

INTRODUCTION TO ASP.NET SERVER CONTROLS

In addition to (or instead of) using <% %> code blocks to program dynamic content, ASP.NET page developers can use ASP.NET server controls to program Web pages. Server controls are declared within an

.aspx file using custom tags or intrinsic HTML tags that contain a **runat="server"** attributes value. Intrinsic HTML tags are handled by one of the controls in the **System.Web.UI.HtmlControls** namespace. Any tag that doesn't explicitly map to one of the controls is assigned the type of **System.Web.UI.HtmlControls.HtmlGenericControl**.

Server controls automatically maintain any client-entered values between round trips to the server. This control state is not stored on the server (it is instead stored within an **<input type="hidden"**> form field that is round-tripped between requests). Note also that no client-side script is required.

In addition to supporting standard HTML input controls, ASP.NET enables developers to utilize richer custom controls on their pages. For example, the following sample demonstrates how the **<asp:adrotator>** control can be used to dynamically display rotating ads on a page.

- 1. ASP.NET Web Forms provide an easy and powerful way to build dynamic Web UI.
- 2. ASP.NET Web Forms pages can target any browser client (there are no script library or cookie requirements).
- 3. ASP.NET Web Forms pages provide syntax compatibility with existing ASP pages.
- 4. ASP.NET server controls provide an easy way to encapsulate common functionality.
- 5. ASP.NET ships with 45 built-in server controls. Developers can also use controls built by third parties.
- 6. ASP.NET server controls can automatically project both uplevel and downlevel HTML.

- 7. ASP.NET templates provide an easy way to customize the look and feel of list server controls.
- 8. ASP.NET validation controls provide an easy way to do declarative client or server data validation.

5.3 C#.NET

ADO.NET OVERVIEW

ADO.NET is an evolution of the ADO data access model that directly addresses user requirements for developing scalable applications. It was designed specifically for the web with scalability, statelessness, and XML in mind.

ADO.NET uses some ADO objects, such as the **Connection** and **Command** objects, and also introduces new objects. Key new ADO.NET objects include the **Dataset**, **Data Reader**, and **Data Adapter**.

The important distinction between this evolved stage of ADO.NET and previous data architectures is that there exists an object -- the **DataSet** -- that is separate and distinct from any data stores. Because of that, the **DataSet** functions as a standalone entity. You can think of the DataSet as an always disconnected recordset that knows nothing about the source or destination of the data it contains. Inside a **DataSet**, much like in a database, there are tables, columns, relationships, constraints, views, and so forth.

A **DataAdapter** is the object that connects to the database to fill the **DataSet**. Then, it connects back to the database to update the data there, based on operations performed while the **DataSet** held the data. In the past, data processing has been primarily connection-based. Now, in

an effort to make multi-tiered apps more efficient, data processing is turning to a message-based approach that revolves around chunks of information. At the center of this approach is the **DataAdapter**, which provides a bridge to retrieve and save data between a **DataSet** and its source data store. It accomplishes this by means of requests to the appropriate SQL commands made against the data store.

The XML-based **DataSet** object provides a consistent programming model that works with all models of data storage: flat, relational, and hierarchical. It does this by having no 'knowledge' of the source of its data, and by representing the data that it holds as collections and data types. No matter what the source of the data within the **DataSet** is, it is manipulated through the same set of standard APIs exposed through the **DataSet** and its subordinate objects.

While the **DataSet** has no knowledge of the source of its data, the managed provider has detailed and specific information. The role of the managed provider is to connect, fill, and persist the **DataSet** to and from data stores. The OLE DB and SQL Server .NET Data Providers (System.Data.OleDb and System.Data.SqlClient) that are part of the .Net Framework provide four basic objects: the **Command**, **Connection**, **DataReader** and **DataAdapter**. In the remaining sections of this document, we'll walk through each part of the **DataSet** and the OLE DB/SQL Server .NET Data Providers explaining what they are, and how to program against them.

The following sections will introduce you to some objects that have evolved, and some that are new. These objects are:

• Connections. For connection to and managing transactions against a database.

- Commands. For issuing SQL commands against a database.
- **DataReaders**. For reading a forward-only stream of data records from a SQL Server data source.
- **DataSet**. For storing, Remoting and programming against flat data, XML data and relational data.
- **DataAdapters**. For pushing data into a **DataSet**, and reconciling data against a database.

When dealing with connections to a database, there are two options: SQL .NET different Server Data Provider (System.Data.SqlClient) and OLE DB .NET Data Provider (System.Data.OleDb). In these samples we will use the SQL Server .NET Data Provider. These are written to talk directly to Microsoft SQL Server. The OLE DB .NET Data Provider is used to talk to any OLE DB provider (as it uses OLE DB underneath).

Connections:

Connections are used to 'talk to' databases, and are represented by provider-specific classes such as **SqlConnection**. Commands travel over connections and resultsets are returned in the form of streams which can be read by a **DataReader** object, or pushed into a **DataSet** object.

Commands:

Commands contain the information that is submitted to a database, and are represented by provider-specific classes such as **SqlCommand**. A command can be a stored procedure call, an UPDATE statement, or a

statement that returns results. You can also use input and output parameters, and return values as part of your command syntax. The example below shows how to issue an INSERT statement against the **Northwind** database.

DataReaders:

The **Data Reader** object is somewhat synonymous with a readonly/forward-only cursor over data. The **DataReader** API supports flat as well as hierarchical data. A **DataReader** object is returned after executing a command against a

database. The format of the returned **DataReader** object is different from a recordset. For example, you might use the **DataReader** to show the results of a search list in a web page.

DATASETS AND DATAADAPTERS:

DataSets

The **Dataset** object is similar to the ADO **Recordset** object, but more powerful, and with one other important distinction: the **DataSet** is always disconnected. The **DataSet** object represents a cache of data, with database-like structures such as tables, columns, relationships, and constraints. However, though a **DataSet** can and does behave much like a database, it is important to remember that **DataSet** objects do not interact directly with databases, or other source data. This allows the developer to work with a programming model that is always consistent,

regardless of where the source data resides. Data coming from a database, an XML file, from code, or user input can all be placed into **DataSet** objects. Then, as changes are made to the **DataSet** they can be tracked and verified before updating the source data. The **GetChanges** method of the **DataSet** object actually creates a second **DatSet** that contains only the changes to the data. This **DataSet** is then used by a **DataAdapter** (or other objects) to update the original data source.

The **DataSet** has many XML characteristics, including the ability to produce and consume XML data and XML schemas. XML schemas can be used to describe schemas interchanged via WebServices. In fact, a **DataSet** with a schema can actually be compiled for type safety and statement completion.

DATAADAPTERS (OLEDB/SQL)

The **DataAdapter** object works as a bridge between the **DataSet** and the source data. Using the provider-specific **SqlDataAdapter** (along with its associated **SqlCommand** and **SqlConnection**) can increase overall performance when working with a Microsoft SQL Server databases. For other OLE DB-supported

databases, you would use the **OleDbDataAdapter** object and its associated **OleDbCommand** and **OleDbConnection** objects.

The **DataAdapter** object uses commands to update the data source after changes have been made to the **DataSet**. Using the **Fill** method of

the **DataAdapter** calls the SELECT command; using the **Update** method calls the INSERT, UPDATE or DELETE command for each changed row. You can explicitly set these commands in order to control the statements used at runtime to resolve changes, including the use of stored procedures. For ad-hoc scenarios, a **CommandBuilder** object can generate these at run-time based upon a select statement. However, this run-time generation requires an extra round-trip to the server in order to gather required metadata, so explicitly providing the INSERT, UPDATE, and DELETE commands at design time will result in better run-time performance.

- 1. ADO.NET is the next evolution of ADO for the .Net Framework.
- 2. ADO.NET was created with n-Tier, statelessness and XML in the forefront. Two new objects, the **DataSet** and **DataAdapter**, are provided for these scenarios.
- 3. ADO.NET can be used to get data from a stream, or to store data in a cache for updates.
- 4. There is a lot more information about ADO.NET in the documentation.
- 5. Remember, you can execute a command directly against the database in order to do inserts, updates, and deletes. You don't need to first put data into a **DataSet** in order to insert, update, or delete it.

Also, you can use a **DataSet** to bind to the data, move through the data, and navigate data relationships

5.4 SQL SERVER -2005

A database management, or DBMS, gives the user access to their data and helps them transform the data into information. Such database management systems include dBase, paradox, IMS, SQL Server and SQL Server. These systems allow users to create, update and extract information from their database.

A database is a structured collection of data. Data refers to the characteristics of people, things and events. SQL Server stores each data item in its own fields. In SQL Server, the fields relating to a particular person, thing or event are bundled together to form a single complete unit of data, called a

record (it can also be referred to as raw or an occurrence). Each record is made up of a number of fields. No two fields in a record can have the same field name.

During an SQL Server Database design project, the analysis of your business needs identifies all the fields or attributes of interest. If your business needs change over time, you define any additional fields or change the definition of existing fields.

SQL SERVER TABLES

SQL Server stores records relating to each other in a table. Different tables are created for the various groups of information. Related tables are grouped together to form a database.

PRIMARY KEY

Every table in SQL Server has a field or a combination of fields that uniquely identifies each record in the table. The Unique identifier is called the Primary Key, or simply the Key. The primary key provides the means to distinguish one record from all other in a table. It allows the user and the database system to identify, locate and refer to one particular record in the database.

RELATIONAL DATABASE

Sometimes all the information of interest to a business operation can be stored in one table. SQL Server makes it very easy to link the data in multiple tables. Matching an employee to the department in which they work is one example. This is what makes SQL Server a relational database management system, or RDBMS. It stores data in two or more tables and enables you to define

relationships between the table and enables you to define relationships between the tables.

FOREIGN KEY

When a field is one table matches the primary key of another field is referred to as a foreign key. A foreign key is a field or a group of fields in one table whose values match those of the primary key of another table.

REFERENTIAL INTEGRITY

Not only does SQL Server allow you to link multiple tables, it also maintains consistency between them. Ensuring that the data among related tables is correctly matched is referred to as maintaining referential integrity.

DATA ABSTRACTION

A major purpose of a database system is to provide users with an abstract view of the data. This system hides certain details of how the data is stored and maintained. Data abstraction is divided into three levels.

Physical level: This is the lowest level of abstraction at which one describes how the data are actually stored.

Conceptual Level: At this level of database abstraction all the attributed and what data are actually stored is described and entries and relationship among them.

View level: This is the highest level of abstraction at which one describes only part of the database.

ADVANTAGES OF RDBMS

- Redundancy can be avoided
- Inconsistency can be eliminated
- Data can be Shared
- Standards can be enforced
- Security restrictions ca be applied
- Integrity can be maintained
- Conflicting requirements can be balanced
- Data independence can be achieved.

DISADVANTAGES OF DBMS

A significant disadvantage of the DBMS system is cost. In addition to the cost of purchasing of developing the software, the hardware has to be upgraded to allow for the extensive programs and the workspace required for their execution and storage. While centralization reduces duplication, the lack of duplication requires that the database be adequately backed up so that in case of failure the data can be recovered.

FEATURES OF SQL SERVER (RDBMS)

SQL SERVER is one of the leading database management systems (DBMS) because it is the only Database that meets the uncompromising

requirements of today's most demanding information systems. From complex decision support systems (DSS) to the most rigorous online transaction processing (OLTP) application, even application that require simultaneous DSS and OLTP access to the same critical data, SQL Server leads the industry in both performance and capability.

SQL SERVER is a truly portable, distributed, and open DBMS that delivers unmatched performance, continuous operation and support for every database.

SQL SERVER RDBMS is high performance fault tolerant DBMS which is specially designed for online transactions processing and for handling large database application.

SQL SERVER with transactions processing option offers two features which contribute to very high level of transaction processing throughput, which are

• The row level lock manager

ENTERPRISE WIDE DATA SHARING

The unrivaled portability and connectivity of the SQL SERVER DBMS enables all the systems in the organization to be linked into a singular, integrated computing resource.

PORTABILITY

SQL SERVER is fully portable to more than 80 distinct hardware and operating systems platforms, including UNIX, MSDOS, OS/2, Macintosh and dozens of proprietary platforms. This portability gives complete freedom to choose the database server platform that meets the system requirements.

OPEN SYSTEMS

SQL SERVER offers a leading implementation of industry – standard SQL. SQL Server's open architecture integrates SQL SERVER and non –SQL SERVER DBMS with industry's most comprehensive collection of tools, application, and third party software products SQL Server's Open architecture provides transparent access to data from other relational database and even non-relational database.

DISTRIBUTED DATA SHARING

SQL Server's networking and distributed database capabilities to access data stored on remote server with the same ease as if the information was stored on a single local computer. A single SQL statement can access data at multiple sites. You can store data where system requirements such as performance, security or availability dictate.

UNMATCHED PERFORMANCE

The most advanced architecture in the industry allows the SQL SERVER DBMS to deliver unmatched performance.

SOPHISTICATED CONCURRENCY CONTROL

Real World applications demand access to critical data. With most database Systems application becomes "contention bound" – which performance is limited not by the CPU power or by disk I/O, but user waiting on one another for data access. SQL Server employs full, unrestricted row-level locking and contention free queries to minimize and in many cases entirely eliminates contention wait times.

NO I/O BOTTLENECKS

SQL Server's fast commit groups commit and deferred write technologies dramatically reduce disk I/O bottlenecks. While some database write whole data block to disk at commit time, SQL Server commits transactions with at most sequential log file on disk at commit time, On high throughput systems, one sequential writes typically group commit multiple transactions. Data read by the transaction remains as shared memory so that other transactions may access that data without reading it again from disk. Since fast commits write all data necessary to the recovery to the log file, modified blocks are written back to the

database independently of the transaction commit, when written from memory to disk.

SYSTEM DESIGN

6.1. INTRODUCTION

Software design sits at the technical kernel of the software engineering process and is applied regardless of the development paradigm and area of application. Design is the first step in the development phase for any engineered product or system. The designer's goal is to produce a model or representation of

an entity that will later be built. Beginning, once system requirement have been specified and analyzed, system design is the first of the three technical activities -design, code and test that is required to build and verify software.

The importance can be stated with a single word "Quality". Design is the place where quality is fostered in software development. Design provides us with representations of software that can assess for quality. Design is the only way that we can accurately translate a customer's view into a finished software product or system. Software design serves as a foundation for all the software engineering steps that follow. Without a strong design we risk building an unstable system – one that will be difficult to test, one whose quality cannot be assessed until the last stage.

During design, progressive refinement of data structure, program structure, and procedural details are developed reviewed and documented. System design can be viewed from either technical or project management perspective. From the technical point of view,

design is comprised of four activities – architectural design, data structure design, interface design and procedural design.

2 NORMALIZATION

It is a process of converting a relation to a standard form. The process is used to handle the problems that can arise due to data redundancy i.e. repetition of data in the database, maintain data integrity as well as handling problems that can arise due to insertion, updating, deletion anomalies.

Decomposing is the process of splitting relations into multiple relations to eliminate anomalies and maintain anomalies and maintain data integrity. To do this we use normal forms or rules for structuring relation.

Insertion anomaly: Inability to add data to the database due to absence of other data.

Deletion anomaly: Unintended loss of data due to deletion of other data.

Update anomaly: Data inconsistency resulting from data redundancy and partial update

Normal Forms: These are the rules for structuring relations that eliminate anomalies.

FIRST NORMAL FORM:

A relation is said to be in first normal form if the values in the relation are atomic for every attribute in the relation. By this we mean

simply that no attribute value can be a set of values or, as it is sometimes expressed, a repeating group.

SECOND NORMAL FORM:

A relation is said to be in second Normal form is it is in first normal form and it should satisfy any one of the following rules.

- 1) Primary key is a not a composite primary key
- 2) No non key attributes are present
- 3) Every non key attribute is fully functionally dependent on full set of primary key.

THIRD NORMAL FORM:

A relation is said to be in third normal form if their exits no transitive dependencies.

Transitive Dependency: If two non key attributes depend on each other as well as on the primary key then they are said to be transitively dependent.

The above normalization principles were applied to decompose the data in multiple tables thereby making the data to be maintained in a consistent state.

6.3 E-R Diagrams

- The relation upon the system is structure through a conceptual ER-Diagram, which not only specifics the existential entities but also the standard relations through which the system exists and the cardinalities that are necessary for the system state to continue.
- The entity Relationship Diagram (ERD) depicts the relationship between the data objects. The ERD is the notation that is used to conduct the date modeling activity the attributes of each data object noted is the ERD can be described resign a data object descriptions.
- The set of primary components that are identified by the ERD are
 - Data object
 - Relationships
 - Attributes
 - Various types of indicators.

The primary purpose of the ERD is to represent data objects and their relationships.

6.4 DATA FLOW DIAGRAMS

A data flow diagram is graphical tool used to describe and analyze movement of data through a system. These are the central tool and the basis from which the other components are developed. The transformation of data from input to output, through processed, may be logically and independently of physical components associated with the system. These are known as the logical data flow diagrams. The physical data flow diagrams show the actual implements and movement of data between people, departments and workstations. A full description of a system actually consists of a set of data flow Using two familiar notations Yourdon, Gane and Sarson diagrams. notation develops the data flow diagrams. Each component in a DFD is labeled with a descriptive name. Process is further identified with a number that will be used for identification purpose. The development of DFD'S is done in several levels. Each process in lower level diagrams can be broken down into a more detailed DFD in the next level. The lop-level diagram is often called context diagram. It consists a single process bit, which plays vital role in studying the current system. The process in the context level diagram is exploded into other process at the first level DFD.

The idea behind the explosion of a process into more process is that understanding at one level of detail is exploded into greater detail at the next level. This is done until further explosion is necessary and an adequate amount of detail is described for analyst to understand the process.

Larry Constantine first developed the DFD as a way of expressing system requirements in a graphical from, this lead to the modular design.

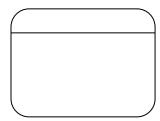
A DFD is also known as a "bubble Chart" has the purpose of clarifying system requirements and identifying major transformations that will become programs in system design. So it is the starting point of the design to the lowest level of detail. A DFD consists of a series of bubbles joined by data flows in the system.

DFD SYMBOLS:

In the DFD, there are four symbols

A square defines a source(originat

- 1. A square defines a source(originator) or destination of system data
- 2. An arrow identifies data flow. It is the pipeline through which the information flows
- 3. A circle or a bubble represents a process that transforms incoming data flow into outgoing data flows.
- 4. An open rectangle is a data store, data at rest or a temporary repository of data



Process that transforms data flow.
Source or Destination of data
 Data flow
Data Store

CONSTRUCTING A DFD:

Several rules of thumb are used in drawing DFD'S:

- 1. Process should be named and numbered for an easy reference. Each name should be representative of the process.
- 2. The direction of flow is from top to bottom and from left to right.

 Data traditionally flow from source to the destination although they
 may flow back to the source. One way to indicate this is to draw long

flow line back to a source. An alternative way is to repeat the source symbol as a destination. Since it is used more than once in the DFD it is marked with a short diagonal.

- 3. When a process is exploded into lower level details, they are numbered.
- 4. The names of data stores and destinations are written in capital letters. Process and dataflow names have the first letter of each work capitalized.

A DFD typically shows the minimum contents of data store. Each data store should contain all the data elements that flow in and out.

Questionnaires should contain all the data elements that flow in and out. Missing interfaces redundancies and like is then accounted for often through interviews.

SAILENT FEATURES OF DFD'S

- 1. The DFD shows flow of data, not of control loops and decision are controlled considerations do not appear on a DFD.
- 2. The DFD does not indicate the time factor involved in any process whether the dataflow take place daily, weekly, monthly or yearly.
- 3. The sequence of events is not brought out on the DFD.

TYPES OF DATA FLOW DIAGRAMS

- 1. Current Physical
- 2. Current Logical

- 3. New Logical
- 4. New Physical

CURRENT PHYSICAL:

In Current Physical DFD process label include the name of people or their positions or the names of computer systems that might provide some of the overall system-processing label includes an identification of the technology used to process the data. Similarly data flows and data stores are often labels with the names of the actual physical media on which data are stored such as file folders, computer files, business forms or computer tapes.

CURRENT LOGICAL:

The physical aspects at the system are removed as much as possible so that the current system is reduced to its essence to the data and the processors that transforms them regardless of actual physical form.

NEW LOGICAL:

NEW LOGICAL:

This is exactly like a current logical model if the user were completely happy with the user were completely happy with the functionality of the current system but had problems with how it was implemented typically through the new logical model will differ from current logical model while having additional functions, absolute function removal and inefficient flows recognized.

NEW PHYSICAL:

The new physical represents only the physical implementation of the new system.

RULES GOVERNING THE DFD'S

PROCESS

- 1) No process can have only outputs.
- 2) No process can have only inputs. If an object has only inputs than it must be a sink.
- 3) A process has a verb phrase label.

DATA STORE

- 1) Data cannot move directly from one data store to another data store, a process must move data.
- 2) Data cannot move directly from an outside source to a data store, a process, which receives, must move data from the source and place the data into data store
- 3) A data store has a noun phrase label.

SOURCE OR SINK

The origin and /or destination of data.

- 1) Data cannot move direly from a source to sink it must be moved by a process
- 2) A source and /or sink has a noun phrase land

DATA FLOW

- 1) A Data Flow has only one direction of flow between symbols. It may flow in both directions between a process and a data store to show a read before an update. The later is usually indicated however by two separate arrows since these happen at different type.
- 2) A join in DFD means that exactly the same data comes from any of two or more different processes data store or sink to a common location.

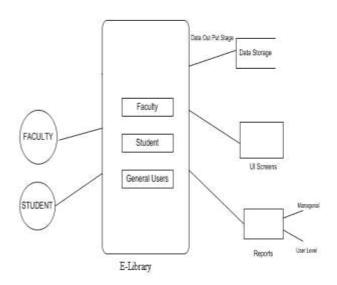
A data flow cannot go directly back to the same process it l

- 3) leads. There must be at least one other process that handles the data flow produce some other data flow returns the original data into the beginning process.
- 4) A Data flow to a data store means update (delete or change).
- 5) A data Flow from a data store means retrieve or use.

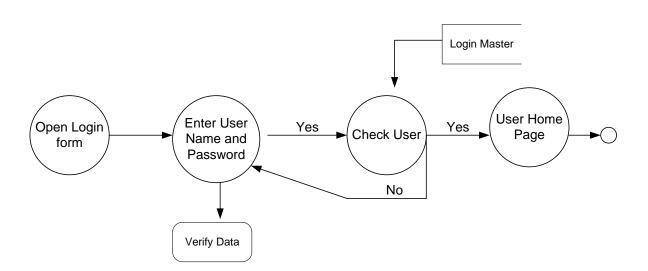
A data flow has a noun phrase label more than one data flow noun phrase can appear on a single arrow as long as all of the flows on the same arrow move together as one package.

DFD Diagrams:

Context 0th Level Diagram:

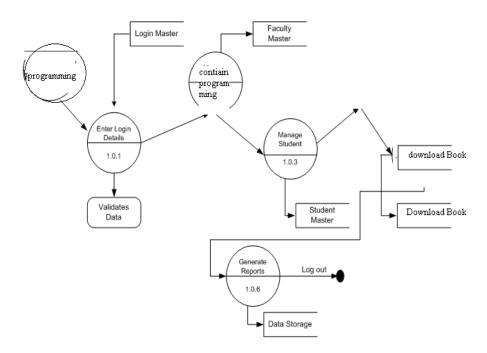


Login DFD Diagram:



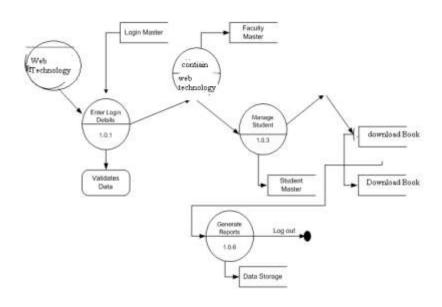
Programming Details:

1st level DFD:



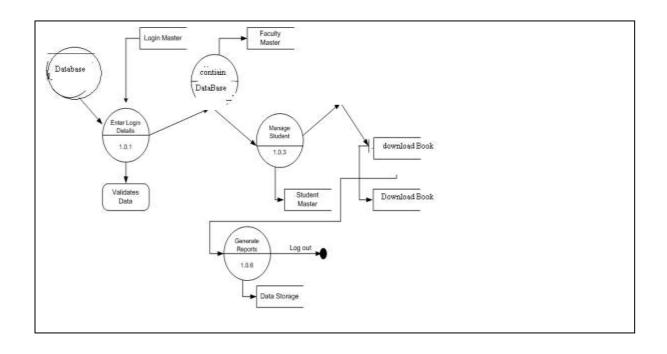
Web Technology Details:

2st level DFD



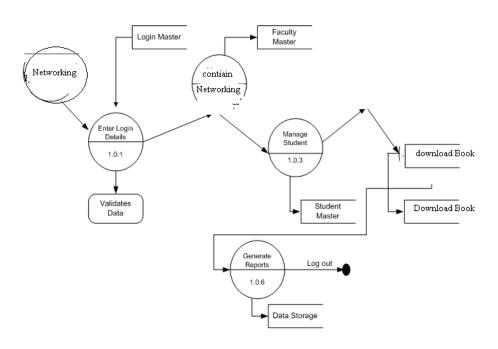
Data Base Details:

3st level DFD



Networking Details:

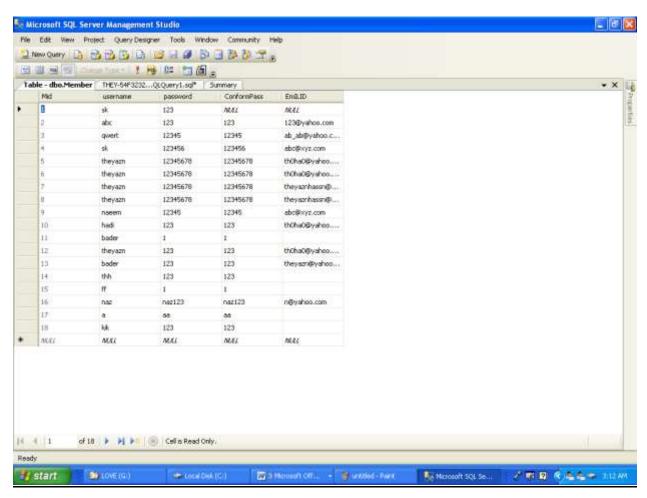
4st level DFD



6.5 DATA DICTIONARY

After carefully understanding the requirements of the client the entire data storage requirements are divided into tables. The below tables are normalized to avoid any anomalies during the

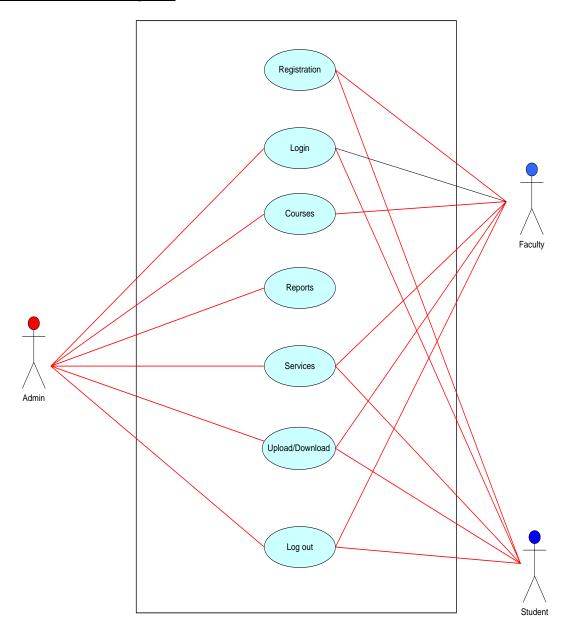
Tables Design:



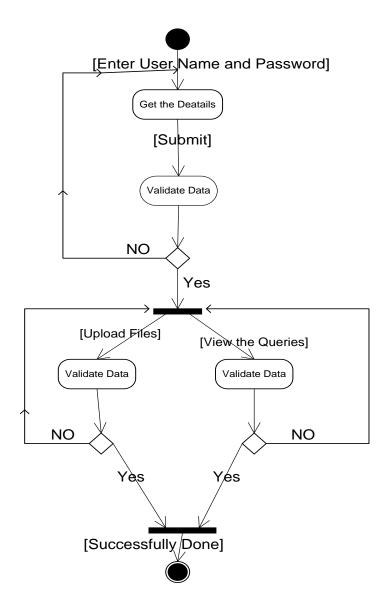
6.6 UML DIAGRAMS

Use Case Diagrams:

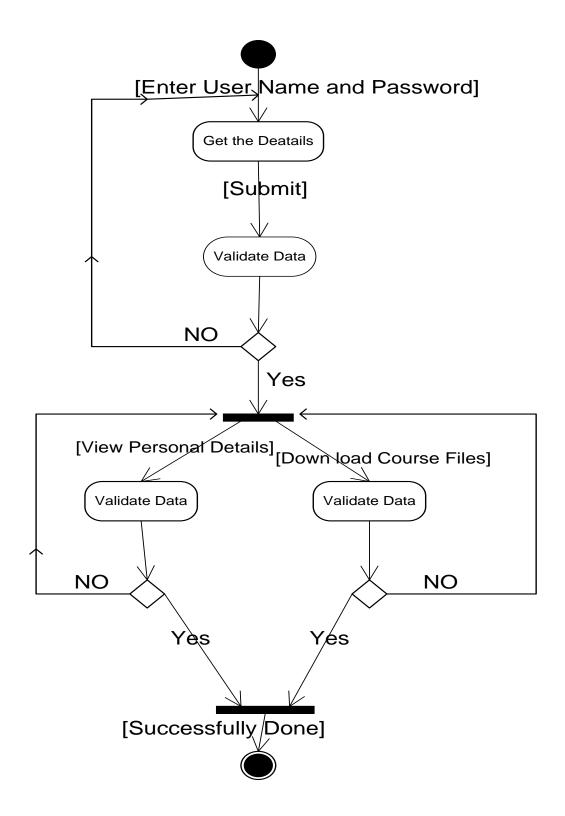
Over View Use Case Diagram:

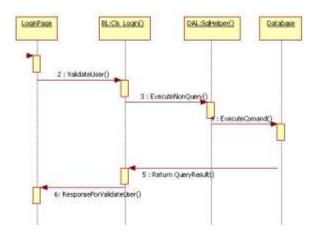


login Activity Diagram:

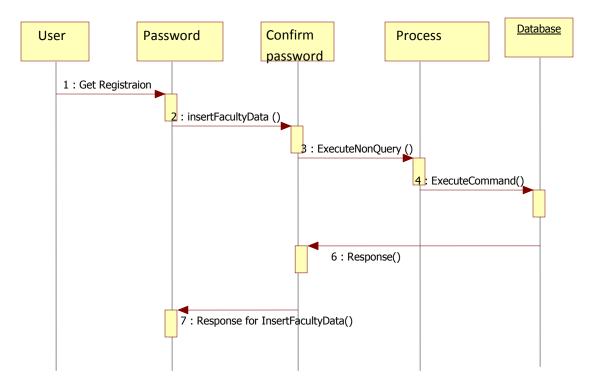


Student Activity Diagram:

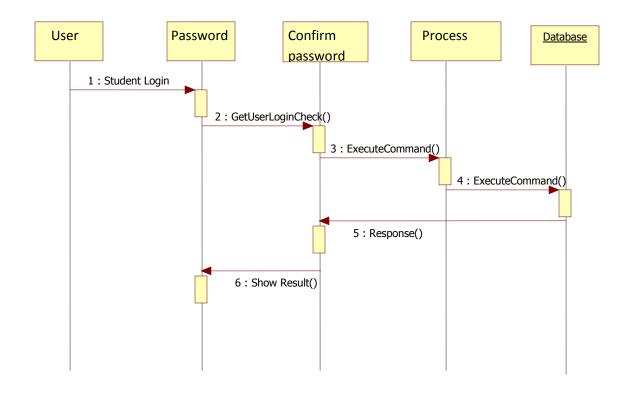




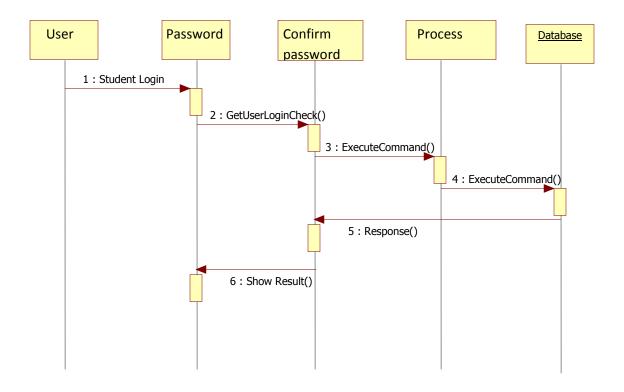
Sequence Diagram For Programming



Sequence Diagram for Web Technology

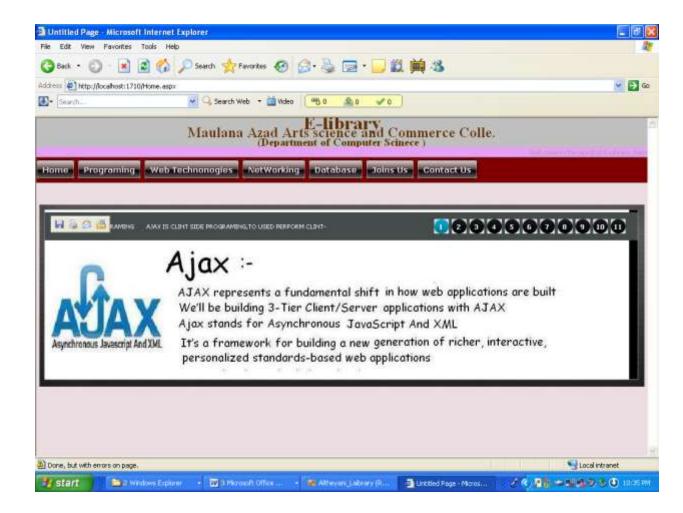


Sequence Diagram for Networking

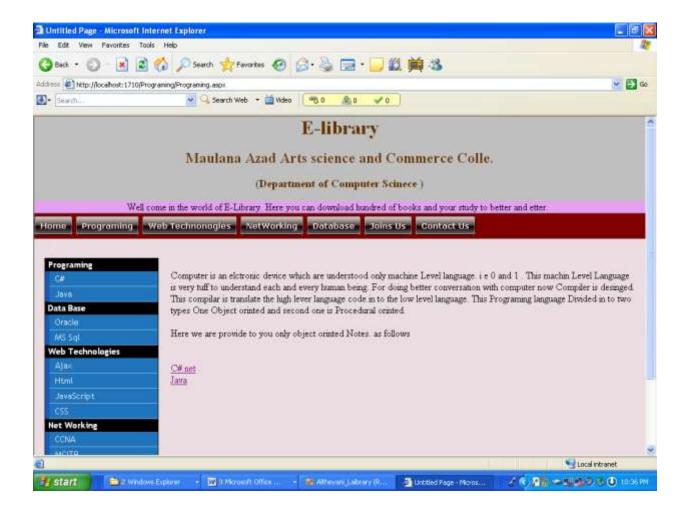


OUTPUT SCREENS

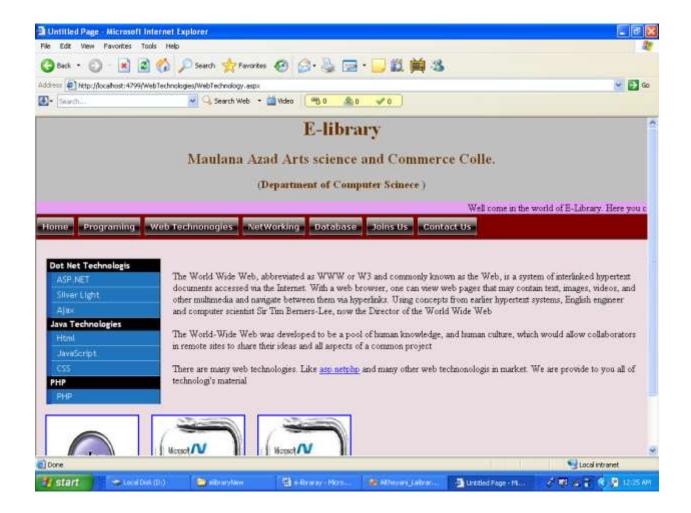
homepage

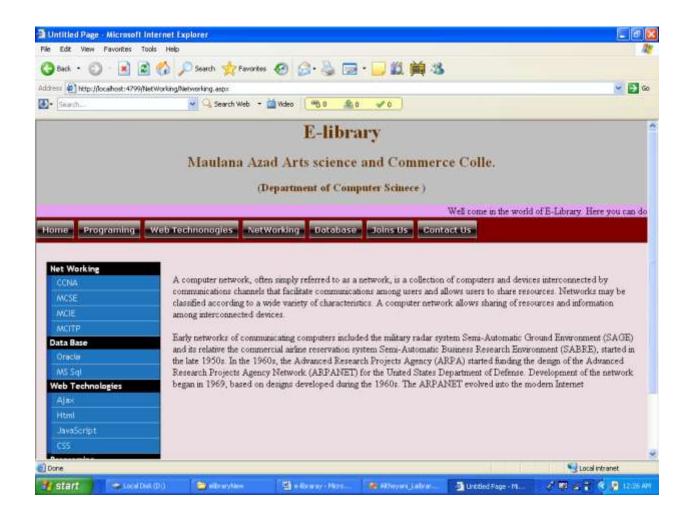


Programming page

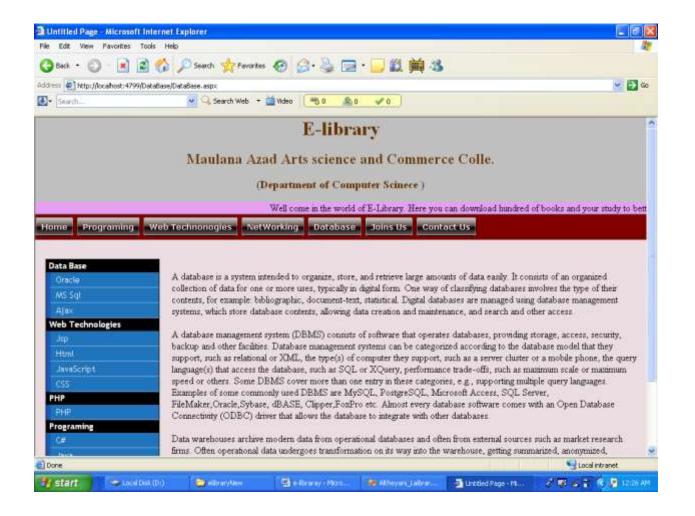


Web Technology Page

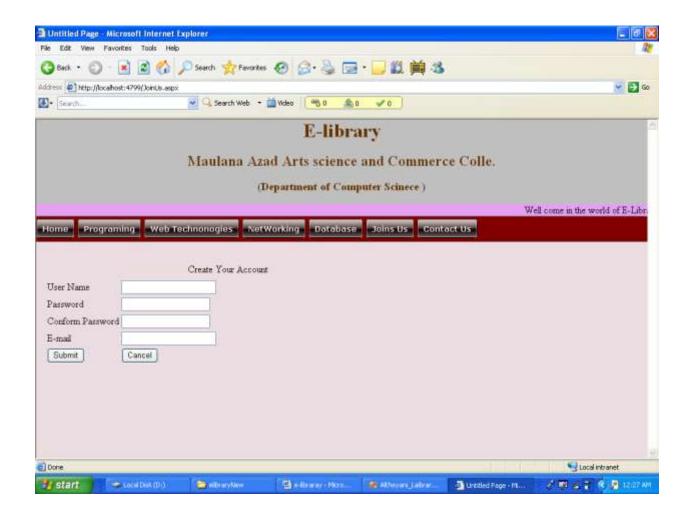




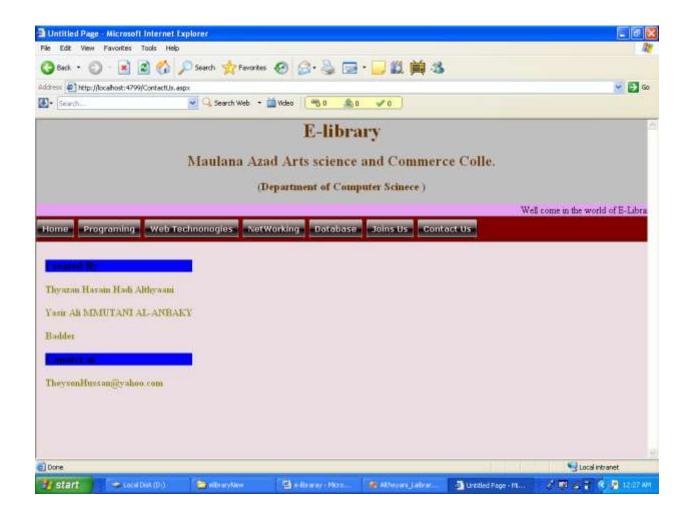
Database Page:



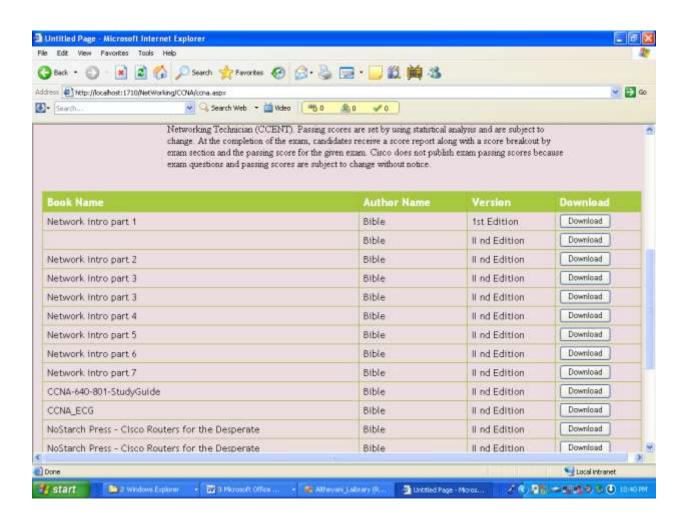
Join Page:



Contact Page:



Download Page:



Coding

Css code

```
* {
margin: 0;
padding: 0;
html {
height: 100%;
}
body {
height: 100%;
color: #a4a4a4;
cursor: default;
font-size: 11px;
line-height: 16px;
text-align: center;
background-color: #EBDDE2;
background-position: 50% 0;
background-repeat: no-repeat;
font-family: Tahoma, sans-serif;
a:link, a:visited {
color : #fff;
text-decoration: none;
}
a img {
border: 0;
div.wrap {
width: 993px;
margin: 0 auto;
```

```
text-align: left;
div#top div#nav {
float: left;
clear: both;
width: 993px;
height: 52px;
margin: 22px 0 0;
div#top div#nav ul {
float : left;
width: 700px;
height: 52px;
list-style-type: none;
}
div#nav ul li {
float : left;
height: 52px;
div#nav ul li a {
border: 0;
height: 52px;
display: block;
line-height: 52px;
text-indent: -9999px;
div#header {
margin: -1px 0 0;
div#video-header {
height: 683px;
margin: -1px 0 0;
div#header div.wrap {
height: 299px;
```

```
background: url(../images/header-bg.png) no-repeat 50% 0;
div#header div#slide-holder {
z-index : 40;
width: 993px;
height: 299px;
position: absolute;
div#header div#slide-holder div#slide-runner {
top: 9px;
left: 9px;
width: 973px;
height: 278px;
overflow: hidden;
position: absolute;
div#header div#slide-holder img {
margin: 0;
display: none;
position: absolute;
div#header div#slide-holder div#slide-controls {
left: 0;
bottom: 228px;
width: 973px;
height: 46px;
display: none;
position: absolute;
background: url(../images/slide-bg.png) 0 0;
div#header div#slide-holder div#slide-controls p.text {
float: left;
color : #fff;
display: inline;
font-size: 10px;
```

```
line-height: 16px;
margin: 15px 0 0 20px;
text-transform: uppercase;
div#header div#slide-holder div#slide-controls p#slide-nav {
float: right;
height: 24px;
display: inline;
margin: 11px 15px 00;
div#header div#slide-holder div#slide-controls p#slide-nav a {
float : left;
width: 24px;
height: 24px;
display: inline;
font-size: 11px;
margin: 0 5px 0 0;
line-height: 24px;
font-weight: bold;
text-align: center;
text-decoration: none;
background-position: 00;
background-repeat: no-repeat;
div#header div#slide-holder div#slide-controls p#slide-nav a.on {
background-position: 0-24px;
div#header div#slide-holder div#slide-controls p#slide-nav a {
background-image: url(../images/silde-nav.png);
div#nav ul li a {
background : url(../images/nav.png) no-repeat;
```

```
/*Credits: Dynamic Drive CSS Library */
/*URL: http://www.dynamicdrive.com/style/ */
.aerobuttonmenu{ /*container that holds a row of aero buttons*/
overflow: hidden; /*See: http://www.quirksmode.org/css/clearing.html
*/
width: auto:
/*background: #F7F7F7; menu strip background*/
border: 1px solid gray;
padding: 4px 0;
border-width: 1px 0;
* html .aerobuttonmenu{ /*IE6 and below hack. Set explicit strip
width*/
width: 100%;
}
.aerobuttonmenu a.aero{ /*aero button CSS*/
background: transparent url('aeroleft.gif') no-repeat top left;
display: block;
float: left:
font: bold 13px Verdana, Trebuchet MS; /* Change 13px as desired */
line-height: 23px; /* This value + 8px should equal height of button
background (default is 31px) */
height: 31px; /* Height of button background height */
padding-left: 10px; /* Width of left menu image */
text-decoration: none;
margin-right: 5px; /*spacing between buttons*/
filter:progid:DXImageTransform.Microsoft.Alpha(opacity=90);
                                                                 /*this
and next two rules control opacity of buttons before hover*/
```

```
opacity: 0.9;
-moz-opacity: 0.9;
.aerobuttonmenu
                    a.aero:link, .aerobuttonmenu a.aero:visited,
.aerobuttonmenu a:active{
color: white; /*button text color*/
.aerobuttonmenu a.aero span{
background: transparent url('aeroright1.gif') no-repeat top right;
display: block;
padding: 4px 10px 6px 0; /*Set 10px here to match value of 'padding-
left' value above*/
}
.aerobuttonmenu a.aero:hover{ /* Hover state CSS */
filter:progid:DXImageTransform.Microsoft.Alpha(opacity=100); /*this
and next two rules control opacity of buttons during hover*/
opacity: 1;
-moz-opacity: 0.99;
}
.aerobuttonmenu a.aero:hover span{ /* Hover state CSS (for text) */
color: yellow;
.black a.aero{
background-image: url('aeroleftblack.gif');
.black a.aero span{
background-image: url('aerorightblack1.gif');
```

```
.aerobuttonmenu .rightsection{
float: right;
width: 100px;
position: relative;
top: 3px;
padding-right: 5px;
text-align: right;
}
.aerobuttonmenu .rightsection a{
color: navy;
}
```

```
margin: 0;
padding: 0;
html {
height: 100%;
body {
height: 100%;
color: #a4a4a4;
cursor: default;
font-size: 11px;
line-height: 16px;
text-align: center;
background-color: #EBDDE2;
background-position: 50% 0;
background-repeat: no-repeat;
font-family: Tahoma, sans-serif;
a:link, a:visited {
color : #fff;
text-decoration: none;
a img {
border: 0;
div.wrap {
width: 993px;
margin: 0 auto;
text-align: left;
div#top div#nav {
float : left;
clear: both;
width: 993px;
height: 52px;
```

```
margin: 22px 0 0;
div#top div#nav ul {
float: left;
width: 700px;
height: 52px;
list-style-type: none;
div#nav ul li {
float : left;
height: 52px;
div#nav ul li a {
border: 0;
height: 52px;
display: block;
line-height: 52px;
text-indent: -9999px;
div#header {
margin: -1px 0 0;
div#video-header {
height: 683px;
margin: -1px 0 0;
div#header div.wrap {
height: 299px;
background: url(../images/header-bg.png) no-repeat 50% 0;
div#header div#slide-holder {
z-index : 40;
width: 993px;
height: 299px;
position: absolute;
```

```
div#header div#slide-holder div#slide-runner {
top : 9px;
left: 9px;
width: 973px;
height: 278px;
overflow: hidden;
position: absolute;
div#header div#slide-holder img {
margin: 0;
display: none;
position: absolute;
div#header div#slide-holder div#slide-controls {
left: 0;
bottom: 228px;
width: 973px;
height: 46px;
display: none;
position: absolute;
background: url(../images/slide-bg.png) 0 0;
}
div#header div#slide-holder div#slide-controls p.text {
float : left;
color : #fff;
display: inline;
font-size: 10px;
line-height: 16px;
margin: 15px 0 0 20px;
text-transform: uppercase;
}
div#header div#slide-holder div#slide-controls p#slide-nav {
float: right;
height: 24px;
```

```
display: inline;
margin: 11px 15px 00;
div#header div#slide-holder div#slide-controls p#slide-nav a {
float : left:
width: 24px;
height: 24px;
display: inline;
font-size: 11px;
margin: 0 5px 0 0;
line-height: 24px;
font-weight: bold;
text-align: center;
text-decoration: none;
background-position: 00;
background-repeat: no-repeat;
div#header div#slide-holder div#slide-controls p#slide-nav a.on {
background-position: 0-24px;
}
div#header div#slide-holder div#slide-controls p#slide-nav a {
background-image : url(../images/silde-nav.png);
}
div#nav ul li a {
background: url(../images/nav.png) no-repeat;
#customers
font-family: "Trebuchet MS", Arial, Helvetica, sans-serif;
width:100%;
```

```
border-collapse; collapse;
#customers td, #customers th
font-size:1em;
border:1px solid #98bf21;
padding:3px 7px 2px 7px;
#customers th
font-size:1.1em;
text-align:left;
padding-top:5px;
padding-bottom:4px;
background-color:#A7C942;
color:#ffffff;
#customers tr.alt td
color:blue;
background-color:White;
```

Js code:

```
/*
* ¡Query 1.2.6 - New Wave Javascript
* Copyright (c) 2008 John Resig (jquery.com)
* Dual licensed under the MIT (MIT-LICENSE.txt)
* and GPL (GPL-LICENSE.txt) licenses.
* $Date: 2008-05-24 14:22:17 -0400 (Sat, 24 May 2008) $
* $Rev: 5685 $
*/
                            iQuery=window.iQuery, $=window.$;var
(function(){var
jQuery=window.jQuery=window.$=function(selector,context){return
                                   ¡Query.fn.init(selector,context);};var
new
quickExpr=/^[^<]*(<(.|\s)+>)[^>]*$|^#(\w+)$/,isSimple=/^.[^:#\[.]*$/,u
ndefined; jQuery.fn=jQuery.prototype={init:function(selector,context){s
elector=selector||document;if(selector.nodeType){this[0]=selector;this.le
ngth=1;return
                        this;}if(typeof
                                                selector=="string"){var
match=quickExpr.exec(selector);if(match&&(match[1]||!context)){if(ma
tch[1])selector=iQuery.clean([match[1]],context);else{var
elem=document.getElementById(match[3]);if(elem){if(elem.id!=match[
3])return jQuery().find(selector);return jQuery(elem);}selector=[];}}else
                                    iQuery(context).find(selector);}else
return
if(jQuery.isFunction(selector))return
¡Query(document)[¡Query.fn.ready?"ready":"load"](selector);return
this.setArray(jQuery.makeArray(selector)); }, jquery: "1.2.6", size:function
```

```
this.length;},length:0,get:function(num){return
(){return
num==undefined?jQuery.makeArray(this):this[num];},pushStack:functi
on(elems){var
                                                      ret=jQuery(elems);ret.prevObject=this;return
ret;},setArray:function(elems){this.length=0;Array.prototype.push.apply
(this, elems); return
                                                             this; }, each: function(callback, args) { return
iQuery.each(this,callback,args); },index:function(elem) { var ret=-1; return
iQuery.inArray(elem&&elem.jquery?elem[0]:elem,this);},attr:function(
name, value, type) { var
options=name;if(name.constructor==String)if(value===undefined)return
this [0] \&\&jQuery[type||"attr"] (this [0], name); else \{options = \{\}; options [name] \} is the property of th
me]=value;}return
                                                         this.each(function(i){for(name
options)¡Query.attr(type?this.style:this,name,¡Query.prop(this,options[na
me],type,i,name));});},css:function(key,value){if((key=='width'||key=='h
eight')&&parseFloat(value)<0)value=undefined;return
this.attr(key,value,"curCSS");},text:function(text){if(typeof
text!="object"&&text!=null)return
this.empty().append((this[0]\&\&this[0].ownerDocument||document).creat
eTextNode(text));var
ret="";jQuery.each(text||this,function(){jQuery.each(this.childNodes,fun
ction(){if(this.nodeType!=8)ret+=this.nodeType!=1?this.nodeValue:jQu
ery.fn.text([this]);});return
ret;},wrapAll:function(html){if(this[0])jQuery(html,this[0].ownerDocu
ment).clone().insertBefore(this[0]).map(function(){var
elem=this; while(elem.firstChild)elem=elem.firstChild; return
elem; }).append(this);return
                                                                  this;},wrapInner:function(html){return
this.each(function(){iQuery(this).contents().wrapAll(html);});},wrap:fun
ction(html){return
this.each(function(){iQuery(this).wrapAll(html);});},append:function(){
return
this.domManip(arguments,true,false,function(elem){if(this.nodeType==
1)this.appendChild(elem); }); }, prepend:function() { return
this.domManip(arguments,true,true,function(elem){if(this.nodeType==1
)this.insertBefore(elem,this.firstChild); }); }, before:function() { return
this.domManip(arguments,false,false,function(elem){this.parentNode.in
sertBefore(elem,this);});},after:function(){return
```

```
this.domManip(arguments, false, true, function(elem) { this.parentNode.ins
ertBefore(elem,this.nextSibling);});},end:function(){return
this.prevObject||jQuery([]);},find:function(selector){var
elems=iOuery.map(this,function(elem){return
¡Query.find(selector,elem);});return
                                                   this.pushStack(/[^+>]
[^+>]/.test(selector)||selector.indexOf("..")>-
1?jQuery.unique(elems):elems);},clone:function(events){var
ret=this.map(function(){if(jQuery.browser.msie&&!jQuery.isXMLDoc(
this)){var
clone=this.cloneNode(true),container=document.createElement("div");c
ontainer.appendChild(clone);return
¡Query.clean([container.innerHTML])[0];}else
                                              this.cloneNode(true);});var
return
clone=ret.find("*").andSelf().each(function(){if(this[expando]!=undefin
ed)this[expando]=null;});if(events===true)this.find("*").andSelf().each(
function(i){if(this.nodeType==3)return;var
events=¡Query.data(this, "events");for(var type in events)for(var handler
events[type])¡Query.event.add(clone[i],type,events[type][handler],events
[type][handler].data);});return
                                     ret;},filter:function(selector){return
this.pushStack(jQuery.isFunction(selector)&&jQuery.grep(this,function(
elem,i){return
selector.call(elem,i);})||jQuery.multiFilter(selector,this));},not:function(s
elector){if(selector.constructor==String)if(isSimple.test(selector))return
this.pushStack(jQuery.multiFilter(selector,this,true));else
selector=¡Query.multiFilter(selector,this);var
isArrayLike=selector.length&&selector[selector.length-
1]!==undefined&&!selector.nodeType;return
this.filter(function(){return
isArrayLike?jQuery.inArray(this,selector)<0:this!=selector;});},add:fun
ction(selector){return
this.pushStack(jQuery.unique(jQuery.merge(this.get(),typeof
selector=='string'?jQuery(selector):jQuery.makeArray(selector)));},is:fu
nction(selector){return!!selector&&jQuery.multiFilter(selector,this).leng
th>0;},hasClass:function(selector){return
```

```
this.is("."+selector);},val:function(value){if(value==undefined){if(this.l
                  elem=this[0];if(jQuery.nodeName(elem,"select")){var
ength){var
index=elem.selectedIndex,values=[],options=elem.options,one=elem.typ
e=="select-one";if(index<0)return
                                                             null;for(var
i=one?index:0,max=one?index+1:options.length;i<max;i++){var
option=options[i];if(option.selected){value=jQuery.browser.msie&&!op
tion.attributes.value.specified?option.text:option.value;if(one)return
value;values.push(value);}}return values;}else
return(this[0].value||"").replace(/\r/g,"");}return
undefined; \(\)\if (value.constructor==Number) \(\)value+="; return
this.each(function(){if(this.nodeType!=1)return;if(value.constructor==A
rray&&/radio|checkbox/.test(this.type))this.checked=(jQuery.inArray(th
is.value,value)>=0||iQuery.inArray(this.name,value)>=0);else
if(jQuery.nodeName(this, "select")){var
values=jQuery.makeArray(value);jQuery("option",this).each(function(){
this.selected=(iQuery.inArray(this.value,values)>=0||iQuery.inArray(this
.text,values)>=0);});if(!values.length)this.selectedIndex=-1;}else
this.value=value;});},html:function(value){return
value==undefined?(this[0]?this[0].innerHTML:null):this.empty().appen
d(value); }, replaceWith: function(value) { return
this.after(value).remove();},eq:function(i){return
this.slice(i,i+1);},slice:function(){return
this.pushStack(Array.prototype.slice.apply(this,arguments));},map:funct
ion(callback){return
this.pushStack(jQuery.map(this,function(elem,i){return
callback.call(elem,i,elem);}));},andSelf:function(){return
this.add(this.prevObject); }, data:function(key, value) { var
parts=key.split(".");parts[1]=parts[1]?"."+parts[1]:"";if(value===undefin
ed){var
data=this.triggerHandler("getData"+parts[1]+"!",[parts[0]]);if(data===u
ndefined&&this.length)data=jQuery.data(this[0],key);return
data===undefined&&parts[1]?this.data(parts[0]):data;}else
return
this.trigger("setData"+parts[1]+"!",[parts[0],value]).each(function(){jQu
ery.data(this,key,value);});},removeData:function(key){return
```

```
this.each(function(){iQuery.removeData(this,key);});},domManip:functi
on(args,table,reverse,callback){var
                                     clone=this.length>1,elems;return
this.each(function(){if(!elems){elems=jQuery.clean(args,this.ownerDoc
ument);if(reverse)elems.reverse();}var
obj=this;if(table&&jQuery.nodeName(this,"table")&&jQuery.nodeNam
e(elems[0],"tr"))obj=this.getElementsByTagName("tbody")[0]||this.appe
ndChild(this.ownerDocument.createElement("tbody"));var
scripts=jQuery([]);jQuery.each(elems,function(){var
elem=clone?jQuery(this).clone(true)[0]:this;if(jQuery.nodeName(elem,"
script"))scripts=scripts.add(elem);else{if(elem.nodeType==1)scripts=scr
ipts.add(jQuery("script",elem).remove());callback.call(obj,elem);}});scri
pts.each(evalScript); } }; jQuery.fn.init.prototype=jQuery.fn;function
evalScript(i,elem){if(elem.src)jQuery.ajax({url:elem.src,async:false,data
Type:"script"});else
jQuery.globalEval(elem.text||elem.textContent||elem.innerHTML||"");if(
elem.parentNode)elem.parentNode.removeChild(elem);}function
now(){return+new
target=arguments[0]||\{\}, i=1, length=arguments.length, deep=false, options
;if(target.constructor==Boolean){deep=target;target=arguments[1]||{};i=
2;}if(typeof
                                           target!="object"&&typeof
target!="function")target={};if(length==i){target=this;--
i; \for(;i < length;i++)if((options=arguments[i])!=null)for(var
                                                                  in
                                                           name
options){var
src=target[name],copy=options[name];if(target===copy)continue;if(dee
p&&copy&&typeof
copy=="object"&&!copy.nodeType)target[name]=jQuery.extend(deep,s
rc||(copy.length!=null?[]:{}),copy);else
if(copy!==undefined)target[name]=copy;}return
                                                         target;};var
expando="jQuery"+now(),uuid=0,windowData={},exclude=/z-
?index|font-?weight|opacity|zoom|line-
?height/i,defaultView=document.defaultView||{};jQuery.extend({noCon
flict:function(deep){window.$= $;if(deep)window.jQuery= iQuery;retu
                 iQuery;},isFunction:function(fn){return!!fn&&typeof
fn!="string"&&!fn.nodeName&&fn.constructor!=Array&&/^[\s[]?functi
```

```
on/.test(fn+"");},isXMLDoc:function(elem){return
elem.documentElement&&!elem.body||elem.tagName&&elem.ownerDo
cument&&!elem.ownerDocument.body;},globalEval:function(data){dat
a=iQuery.trim(data);if(data){var
head=document.getElementsByTagName("head")[0]||document.docume
ntElement,script=document.createElement("script");script.type="text/jav
ascript";if(jQuery.browser.msie)script.text=data;else
script.appendChild(document.createTextNode(data));head.insertBefore(s
cript,head.firstChild);head.removeChild(script);}},nodeName:function(e
lem,name){return
elem.nodeName&&elem.nodeName.toUpperCase()==name.toUpperCas
e();},cache:{},data:function(elem,name,data){elem=elem==window?wi
ndowData:elem:var
id=elem[expando];if(!id)id=elem[expando]=++uuid;if(name&&!jQuery.
cache[id])jQuery.cache[id]={};if(data!==undefined)jQuery.cache[id][na
me]=data;return
name?jQuery.cache[id][name]:id;},removeData:function(elem,name){el
em=elem==window?windowData:elem;var
id=elem[expando];if(name){if(jQuery.cache[id]){delete
jQuery.cache[id][name];name="";for(name
                                                                   in
jQuery.cache[id])break;if(!name)jQuery.removeData(elem);}}else{try{d
elete
elem[expando];}catch(e){if(elem.removeAttribute)elem.removeAttribut
e(expando);}delete
¡Query.cache[id];}},each:function(object,callback,args){var
name,i=0,length=object.length;if(args){if(length==undefined)}for(name
in object)if(callback.apply(object[name],args)===false)break;}else
for(;i<length;)if(callback.apply(object[i++],args)===false)break;}else{if
(length==undefined){for(name
                                                                   in
object)if(callback.call(object[name],name,object[name])===false)break;
}else
for(var
value=object[0];i<length&&callback.call(value,i,value)!==false;value=o
bject[++i]){}}return
object;},prop:function(elem,value,type,i,name){if(jQuery.isFunction(val
```

```
ue))value=value.call(elem,i);return
value&&value.constructor==Number&&type=="curCSS"&&!exclude.t
est(name)?value+"px":value;},className:{add:function(elem,classNam
es)\{jQuery.each((classNames||"").split(/\s+/),function(i,className)\}if(elassName)\}if(elassName)\}if(elassName)\}if(elassName)\}if(elassName)\}if(elassName)\}if(elassName)\}if(elassName)\}if(elassName)\}if(elassName)\}if(elassName)\}if(elassName)\}if(elassName)\}if(elassName)\}if(elassName)\}if(elassName)\}if(elassName)\}if(elassName)\}if(elassName)\}if(elassName)\}if(elassName)\}if(elassName)\}if(elassName)\}if(elassName)\}if(elassName)\}if(elassName)\}if(elassName)\}if(elassName)\}if(elassName)\}if(elassName)\}if(elassName)\}if(elassName)\}if(elassName)\}if(elassName)\}if(elassName)\}if(elassName)\}if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if(elassName)]if
em.nodeType==1&&!jQuery.className.has(elem.className,classNam
e))elem.className+=(elem.className?"
":"")+className;});},remove:function(elem,classNames){if(elem.nodeT
ype==1)elem.className=classNames!=undefined?jQuery.grep(elem.cla
ssName.split(\s+/),function(className)\{return!jQuery.className.has(c
lassNames,className);}).join("
"):"";},has:function(elem,className){return
jQuery.inArray(className,(elem.className||elem).toString().split(\\s+/)
)>-1;}},swap:function(elem,options,callback){var old={};for(var name
in
options){old[name]=elem.style[name];elem.style[name]=options[name];
}callback.call(elem);for(var
                                                                                           name
                                                                                                                                           in
options)elem.style[name]=old[name];},css:function(elem,name,force){if
(name=="width"||name=="height"){var
val,props={position:"absolute",visibility:"hidden",display:"block"},whic
h=name=="width"?["Left","Right"]:["Top","Bottom"];function
getWH(){val=name=="width"?elem.offsetWidth:elem.offsetHeight;var
padding=0,border=0;jQuery.each(which,function(){padding+=parseFloa
t(jQuery.curCSS(elem,"padding"+this,true))||0;border+=parseFloat(jQue
ry.curCSS(elem,"border"+this+"Width",true))||0;});val-
=Math.round(padding+border); \(\)if(\(\)iQuery(\(\)elem\).is(\(\):\(\)visible\(\))\)getWH();
else
¡Query.swap(elem,props,getWH);return
                                                                                              Math.max(0,val);}return
iQuery.curCSS(elem,name,force); }, curCSS:function(elem,name,force) {
                                                                                      ret,style=elem.style;function
var
color(elem) \{ if (!jQuery.browser.safari) return \\
                                                                                                                              false; var
ret=defaultView.getComputedStyle(elem,null);return!ret||ret.getProperty
Value("color")=="";}if(name=="opacity"&&jQuery.browser.msie){ret=
¡Query.attr(style,"opacity");return
ret==""?"1":ret;}if(jQuery.browser.opera&&name=="display"){var
save=style.outline;style.outline="0
                                                                                                                                     solid
```

```
black"; style.outline=save; } if(name.match(/float/i))name=styleFloat; if(!f
orce&&style&&style[name])ret=style[name];else
if(defaultView.getComputedStyle){if(name.match(/float/i))name="float"
;name=name.replace(/([A-Z])/g,"-$1").toLowerCase();var
computedStyle=defaultView.getComputedStyle(elem,null);if(computed
Style&&!color(elem))ret=computedStyle.getPropertyValue(name);else{
var
swap=[],stack=[],a=elem,i=0;for(;a&&color(a);a=a.parentNode)stack.un
shift(a);for(;i<stack.length;i++)if(color(stack[i])){swap[i]=stack[i].style.
display; stack[i].style.display="block"; }ret=name=="display"&&swap[st
ack.length-
1]!=null?"none":(computedStyle&&computedStyle.getPropertyValue(na
me))||"";for(i=0;i<swap.length;i++)if(swap[i]!=null)stack[i].style.display
=swap[i];}if(name=="opacity"&&ret=="")ret="1";}else
if(elem.currentStyle){var
                                            camelCase=name.replace(/\-
(\w)/g,function(all,letter){return
letter.toUpperCase();});ret=elem.currentStyle[name]||elem.currentStyle[
camelCase];if(!/^d+(px)?$/i.test(ret)&&/^\d/.test(ret)){var
left=style.left,rsLeft=elem.runtimeStyle.left;elem.runtimeStyle.left=elem
.currentStyle.left;style.left=ret||0;ret=style.pixelLeft+"px";style.left=left;
elem.runtimeStyle.left=rsLeft;}}return
ret; \, clean: function(elems, context) \{ var
ret=[];context=context||document;if(typeof
context.createElement=='undefined')context=context.ownerDocument||c
ontext[0]&&context[0].ownerDocument||document;jQuery.each(elems,f
unction(i,elem){if(!elem)return;if(elem.constructor==Number)elem+=";i
f(typeof
elem=="string"){\text{elem}=\text{elem.replace}(/(<(\backslash w+)[^>]*?)}/>/g,\text{function}(\text{all,fr})
ont,tag){return
tag.match(/^(abbr|br|col|img|input|link|meta|param|hr|area|embed)$/i)?all
:front+"></"+tag+">";});var
tags=jQuery.trim(elem).toLowerCase(),div=context.createElement("div"
                              wrap=!tags.indexOf("<opt")&&[1,"<select
);var
multiple='multiple'>","</select>"]||!tags.indexOf("<leg")&&[1,"<fieldse
t>","</fieldset>"]||tags.match(/^<(thead|tbody|tfoot|colg|cap)/)&&[1,"<ta
```

```
ble>",""]||!tags.indexOf("<tr")&&[2,"<table>","</tbody
>"]||(!tags.indexOf("<td")||!tags.indexOf("<th"))&&[3,"<table>
",""]||!tags.indexOf("<col")&&[2,"<t
able><colgroup>","</colgroup>"]||¡Query.bro
wser.msie&&[1,"div<div>","</div>"]||[0,"",""];div.innerHTML=wrap[1
]+elem+wrap[2];while(wrap[0]--
)div=div.lastChild;if(jQuery.browser.msie){var
tbody=!tags.indexOf("<table")&&tags.indexOf("<tbody")<0?div.firstCh
ild&&div.firstChild.childNodes:wrap[1]==""&&tags.indexOf("<
tbody")<0?div.childNodes:[];for(var
                                           i=tbody.length-1;i>=0;--
j)if(jQuery.nodeName(tbody[j],"tbody")&&!tbody[j].childNodes.length)
tbody[j].parentNode.removeChild(tbody[j]);if(/^\s/.test(elem))div.insert
Before(context.createTextNode(elem.match(/^s*/[0]),div.firstChild);}e
lem=jQuery.makeArray(div.childNodes);}if(elem.length===0&&(!jQue
ry.nodeName(elem, "form") & &! jQuery.nodeName(elem, "select"))) retur
n;if(elem[0]==undefined||iQuery.nodeName(elem,"form")||elem.options)
ret.push(elem);else
ret=jQuery.merge(ret,elem);});return
ret;},attr:function(elem,name,value){if(!elem||elem.nodeType==3||elem.
nodeType==8)return
                                                     undefined; var
notxml=!jQuery.isXMLDoc(elem),set=value!==undefined,msie=jQuery.
browser.msie;name=notxml&&jQuery.props[name]||name;if(elem.tagNa
me){var
special=/href|src|style/.test(name);if(name=="selected"&&jQuery.brows
er.safari)elem.parentNode.selectedIndex;if(name
                                                                in
elem&&notxml&&!special){if(set){if(name=="type"&&jQuery.nodeNa
me(elem, "input") & & elem.parentNode) throw "type"
                                              property
changed";elem[name]=value;}if(jQuery.nodeName(elem,"form")&&ele
m.getAttributeNode(name))return
elem.getAttributeNode(name).nodeValue;return
elem[name];}if(msie&&notxml&&name=="style")return
jQuery.attr(elem.style,"cssText",value);if(set)elem.setAttribute(name,""
+value);var
attr=msie&&notxml&&special?elem.getAttribute(name,2):elem.getAttri
bute(name);return
```

```
attr===null?undefined:attr;}if(msie&&name=="opacity"){if(set){elem.z
oom=1;elem.filter=(elem.filter||"").replace(/alpha\([^)]*\)/,"")+(parseInt(
value)+"=="NaN"?"":"alpha(opacity="+value*100+")");}return
elem.filter&&elem.filter.indexOf("opacity=")>=0?(parseFloat(elem.filte
r.match(/opacity=([^)]*)/)[1])/100)+":"";}name=name.replace(/-([a-
z])/ig,function(all,letter){return
letter.toUpperCase();});if(set)elem[name]=value;return
elem[name]; \}, trim: function(text) { return(text||"").replace(/^{\s+}|\s+$/g,"")
;},makeArray:function(array){var
                                               ret=[];if(array!=null){var
i=array.length;if(i==null||array.split||array.setInterval||array.call)ret[0]=ar
ray;else
while(i)ret[--i]=array[i];}return
ret;},inArray:function(elem,array){for(var
i=0,length=array.length;i<length;i++)if(array[i]===elem)return i;return-
1;},merge:function(first,second){var
i=0,elem,pos=first.length;if(jQuery.browser.msie){while(elem=second[i
++])if(elem.nodeType!=8)first[pos++]=elem;}else
while(elem=second[i++])first[pos++]=elem;return
first; \, unique: function(array) \{ var
                                              ret=[],done={};try{for(var
i=0,length=array.length;i<length;i++){var
id=jQuery.data(array[i]);if(!done[id]){done[id]=true;ret.push(array[i]);}
}}catch(e){ret=array;}return ret;},grep:function(elems,callback,inv){var
ret=[];for(var
i=0,length=elems.length;i<length;i++)if(!inv!=!callback(elems[i],i))ret.p
ush(elems[i]);return
                                 ret; \, map: function(elems, callback) \{ var
ret=[];for(var
                              i=0,length=elems.length;i<length;i++){var
value=callback(elems[i],i);if(value!=null)ret[ret.length]=value;}return
ret.concat.apply([],ret);}});var
userAgent=navigator.userAgent.toLowerCase();jQuery.browser={versio}
n:(userAgent.match(/.+(?:rv|it|ra|ie)[\/:
]([\d.]+)/)||[])[1],safari:/webkit/.test(userAgent),opera:/opera/.test(userA
gent),msie:/msie/.test(userAgent)&&!/opera/.test(userAgent),mozilla:/m
ozilla/.test(userAgent)&&!/(compatible|webkit)/.test(userAgent)};var
styleFloat=jQuery.browser.msie?"styleFloat":"cssFloat";jQuery.extend(
{boxModel:!jQuery.browser.msie||document.compatMode=="CSS1Com
```

```
pat",props:{"for":"htmlFor","class":"className","float":styleFloat,cssFl
oat:styleFloat,styleFloat;styleFloat,readonly:"readOnly",maxlength:"ma
xLength",cellspacing:"cellSpacing"}});jQuery.each({parent:function(ele
m){return
                       elem.parentNode; }, parents: function(elem) { return
¡Query.dir(elem,"parentNode");},next:function(elem){return
¡Query.nth(elem,2,"nextSibling");},prev:function(elem){return
¡Query.nth(elem,2,"previousSibling");},nextAll:function(elem){return
iQuery.dir(elem,"nextSibling");},prevAll:function(elem){return
jQuery.dir(elem, "previousSibling"); }, siblings: function(elem) { return
jQuery.sibling(elem.parentNode.firstChild,elem);},children:function(ele
m){return
¡Query.sibling(elem.firstChild);},contents:function(elem){return
¡Query.nodeName(elem,"iframe")?elem.contentDocument||elem.content
Window.document:jQuery.makeArray(elem.childNodes);}},function(na
me,fn){jQuery.fn[name]=function(selector){var
ret=iQuery.map(this,fn);if(selector&&typeof
selector=="string")ret=jQuery.multiFilter(selector,ret);return
this.pushStack(jQuery.unique(ret));};});jQuery.each({appendTo:"appen
d",prependTo:"prepend",insertBefore:"before",insertAfter:"after",replac
eAll:"replaceWith"},function(name,original){jQuery.fn[name]=function
(){ var
                                            this.each(function(){for(var
              args=arguments;return
i=0,length=args.length;i<length;i++)jQuery(args[i])[original](this);});};
});jQuery.each({removeAttr:function(name){jQuery.attr(this,name,"");if
(this.nodeType==1)this.removeAttribute(name);},addClass:function(clas
sNames){jQuery.className.add(this,classNames);},removeClass:functi
on(classNames){jQuery.className.remove(this,classNames);},toggleCl
ass:function(classNames){jQuery.className[jQuery.className.has(this
,classNames)?"remove":"add"](this,classNames);},remove:function(sele
ctor){if(!selector||jQuery.filter(selector,[this]).r.length){jQuery("*",this).
add(this).each(function(){jQuery.event.remove(this);jQuery.removeData
(this); }); if (this.parentNode) this.parentNode.removeChild(this); } }, empty
:function(){iQuery(">*",this).remove();while(this.firstChild)this.remove
Child(this.firstChild); } }, function(name,fn){iQuery.fn[name]=function()
{return
this.each(fn,arguments);};});jQuery.each(["Height","Width"],function(i,
```

```
name){var
type=name.toLowerCase();jQuery.fn[type]=function(size){return
this[0]==window?jQuery.browser.opera&&document.body["client"+na
me]||iQuery.browser.safari&&window["inner"+name]||document.compa
tMode=="CSS1Compat"&&document.documentElement["client"+name
|||document.body["client"+name]:this[0]==document?Math.max(Math.
max(document.body["scroll"+name],document.documentElement["scrol
l"+name]),Math.max(document.body["offset"+name],document.docume
ntElement["offset"+name])):size==undefined?(this.length?jQuery.css(th
is[0],type):null):this.css(type,size.constructor==String?size:size+"px");}
;});function
                                               num(elem,prop){return
elem[0]&&parseInt(jQuery.curCSS(elem[0],prop,true),10)||0;}var
chars=jQuery.browser.safari&&parseInt(jQuery.browser.version)<417?"
(?:[\w^*_-]\\)'':"(?:[\w\u0128-\uFFFF*_-]\\)'',quickChild=new
RegExp("^>\\s*("+chars+"+)"),quickID=new
RegExp("^("+chars+"+)(#)("+chars+"+)"),quickClass=new
RegExp("^([#.]?)("+chars+"*)");jQuery.extend({expr:{"":function(a,i,m
){return
m[2]=="*"||jQuery.nodeName(a,m[2]);\},"#":function(a,i,m){return}
a.getAttribute("id")==m[2];},":":{lt:function(a,i,m){return}
                                                              i < m[3]-
0;},gt:function(a,i,m){return
                                 i>m[3]-0;},nth:function(a,i,m){return
m[3]-0==i;,eq:function(a,i,m){return
                                                                m[3]-
0==i;},first:function(a,i){return
                                   i==0;},last:function(a,i,m,r){return
i==r.length-1;},even:function(a,i){return
i%2==0;},odd:function(a,i){return i%2;},"first-child":function(a){return
a.parentNode.getElementsByTagName("*")[0]==a;},"last-
child":function(a){return
iQuery.nth(a.parentNode.lastChild,1,"previousSibling")==a;},"only-
child":function(a){return!jQuery.nth(a.parentNode.lastChild,2,"previous
Sibling"); }, parent: function(a) { return
a.firstChild;},empty:function(a){return!a.firstChild;},contains:function(a
i,m){return(a.textContent||a.innerText||iQuery(a).text()||"").indexOf(m[3
])>=0;},visible:function(a){return"hidden"!=a.type&&jQuery.css(a,"dis
play")!="none"&&jQuery.css(a,"visibility")!="hidden";},hidden:functio
n(a){return"hidden"==a.type||jQuery.css(a,"display")=="none"||jQuery.c
```

```
ss(a,"visibility")=="hidden";},enabled:function(a){return!a.disabled;},di
sabled:function(a){return
                                a.disabled;},checked:function(a){return
a.checked;},selected:function(a){return
a.selected||jQuery.attr(a,"selected");},text:function(a){return"text"==a.ty
pe;},radio:function(a){return"radio"==a.type;},checkbox:function(a){ret
urn"checkbox"==a.type;},file:function(a){return"file"==a.type;},passwo
rd:function(a){return"password"==a.type;},submit:function(a){return"su
bmit"==a.type;},image:function(a){return"image"==a.type;},reset:functi
on(a){return"reset"==a.type;},button:function(a){return"button"==a.typ
e||iQuery.nodeName(a,"button");},input:function(a){return/input|select|t
extarea|button/i.test(a.nodeName);},has:function(a,i,m){return
jQuery.find(m[3],a).length;},header:function(a){return/h\d/i.test(a.node
Name); }, animated: function(a) { return
jQuery.grep(jQuery.timers,function(fn){return
a == fn.elem; \}).length; \}\}, parse: [/^(\[) *@?([\w-]+) *([!*$^~=]*)])
                    *\]/,\^(:)([\w-]+)\("?'?(.*?\\))?[^(]*?)"?'?\)/,new
*('?''?)(.*?)\4
RegExp("^([:.#]*)("+chars+"+)")],multiFilter:function(expr,elems,not){
                      old,cur=[];while(expr&&expr!=old){old=expr;var
var
f=iQuery.filter(expr,elems,not);expr=f.t.replace(/^\s*,\s*/,"");cur=not?el
ems=f.r:jQuery.merge(cur,f.r);}return
cur;},find:function(t,context){if(typeof
t!="string")return[t];if(context&&context.nodeType!=1&&context.node
Type!=9)return[];context=context||document;var
ret=[context],done=[],last,nodeName;while(t&&last!=t){var
r=[];last=t;t=jQuery.trim(t);var
foundToken=false,re=quickChild,m=re.exec(t);if(m){nodeName=m[1].t
oUpperCase();for(var
                                                   i=0;ret[i];i++)for(var)
c=ret[i].firstChild;c;c=c.nextSibling)if(c.nodeType==1&&(nodeName=
="*"||c.nodeName.toUpperCase()==nodeName))r.push(c);ret=r;t=t.repla
ce(re,"");if(t.indexOf("
")==0)continue;foundToken=true;}else{re=/^([>+\sim])\s^*(\w^*)/i;if((m=re.
exec(t))!=null)\{r=[];var\}
merge={};nodeName=m[2].toUpperCase();m=m[1];for(var
j=0,rl=ret.length; j< rl; j++) \{var\}
n=m=="~"||m=="+"?ret[j].nextSibling:ret[j].firstChild;for(;n;n=n.nextSi
```

```
bling)if(n.nodeType==1){var
id=jQuery.data(n);if(m=="~"&&merge[id])break;if(!nodeName||n.node
Name.toUpperCase()==nodeName){if(m=="~")merge[id]=true;r.push(n
); \if(m=="+")break; \ret=r; t=iQuery.trim(t.replace(re,"")); foundToken=
true;}}if(t&&!foundToken){if(!t.indexOf(",")){if(context==ret[0])ret.sh
ift();done=jQuery.merge(done,ret);r=ret=[context];t="
"+t.substr(1,t.length);}else{var
                                                       re2=quickID;var
m=re2.exec(t);if(m){m=[0,m[2],m[3],m[1]];}else{re2=quickClass;m=re}
2.exec(t);m[2]=m[2].replace(/\/g,"");var
                                                   elem=ret[ret.length-
1];if(m[1]=="#"&&elem&&elem.getElementById&&!jQuery.isXMLD
oc(elem)){var
oid=elem.getElementById(m[2]);if((jQuery.browser.msie||jQuery.brows
er.opera)&&oid&&typeof
oid.id=="string"&&oid.id!=m[2])oid=jQuery('[@id="'+m[2]+'"]',elem)[
0];ret=r=oid&&(!m[3]||jQuery.nodeName(oid,m[3]))?[oid]:[];}else{for(
                                                     i=0:ret[i]:i++){var
var
tag=m[1]=="#"\&\&m[3]?m[3]:m[1]!=""||m[0]==""?"*":m[2];if(tag=="*"]
\&ret[i].nodeName.toLowerCase()=="object")tag="param";r=jQuery.m
erge(r,ret[i].getElementsByTagName(tag));}if(m[1]==".")r=jQuery.class
Filter(r,m[2]);if(m[1]=="#"){var}
                                                         tmp=[];for(var
i=0;r[i];i++)if(r[i].getAttribute("id")==m[2]){tmp=[r[i]];break;}r=tmp;}r
et=r;}t=t.replace(re2,"");}}if(t){var
val=jQuery.filter(t,r);ret=r=val.r;t=jQuery.trim(val.t);}}if(t)ret=[];if(ret&
&context==ret[0])ret.shift();done=jQuery.merge(done,ret);return
done;},classFilter:function(r,m,not){m=" "+m+" ";var tmp=[];for(var
                              pass=("
                                                    "+r[i].className+"
i=0;r[i];i++){var}
").indexOf(m)>=0;if(!not&&pass||not&&!pass)tmp.push(r[i]);}return
tmp;},filter:function(t,r,not){var
                                      last; while(t&&t!=last){last=t; var
p=jQuery.parse,m;for(var
i=0;p[i];i++){m=p[i].exec(t);if(m){t=t.substring(m[0].length);m[2]=m[2]}
].replace(\langle \langle g,"" \rangle;break;} if(!m)break;if(m[1]==":"&&m[2]=="not")r=is
Simple.test(m[3])?jQuery.filter(m[3],r,true).r:jQuery(r).not(m[3]);else
if(m[1]==".")r=jQuery.classFilter(r,m[2],not);else
                                                     if(m[1]=="["]{var}
tmp=[],type=m[3];for(var)
                                           i=0,rl=r.length;i< rl;i++){var
a=r[i],z=a[jQuery.props[m[2]]||m[2]];if(z==null||/href|src|selected/.test(
```

```
m[2])z=jQuery.attr(a,m[2])||";if((type==""&&!!z||type=="="&&z==m[
5]||type=="!="&&z!=m[5]||type=="^="&&z&&!z.indexOf(m[5])||type=
="$="&&z.substr(z.length-
m[5].length) = m[5]||(type = = "* = "||type = = "~ = ")&&z.indexOf(m[5]) > = 0)
not)tmp.push(a);}r=tmp;}else if(m[1]==":"&&m[2]=="nth-child"){var
merge=\{\},tmp=[],test=/(-?)(\d^*)n((?:\+|-
)?\d^*)/.exec(m[3]=="even"\&\&"2n"||m[3]=="odd"\&\&"2n+1"||!/\D/.test(
m[3] & "0n+"+m[3] | m[3], first=(test[1]+(test[2]||1))-0, last=test[3]-
                                           i=0,rl=r.length;i< rl;i++){var
0;for(var
node=r[i],parentNode=node.parentNode,id=jQuery.data(parentNode);if(
!merge[id]){var
                                                            c=1:for(var
n=parentNode.firstChild;n;n=n.nextSibling)if(n.nodeType==1)n.nodeIn
dex=c++;merge[id]=true;}var
add=false;if(first==0){if(node.nodeIndex==last)add=true;}else
if((node.nodeIndex-last)%first==0&&(node.nodeIndex-
last)/first>=0)add=true;if(add^not)tmp.push(node);}r=tmp;}else{var
                                    fn=="object")fn=fn[m[2]];if(typeof
fn=iQuery.expr[m[1]];if(typeof
fn=="string")fn=eval("false||function(a,i){return
"+fn+";}");r=jQuery.grep(r,function(elem,i){return
fn(elem,i,m,r); },not); } return {r:r,t:t}; },dir:function(elem,dir) { var
matched=[],cur=elem[dir];while(cur&&cur!=document){if(cur.nodeTyp
e==1)matched.push(cur);cur=cur[dir];}return
matched; },nth:function(cur,result,dir,elem){result=result||1;var
num=0;for(;cur;cur=cur[dir])if(cur.nodeType==1&&++num==result)bre
                                     cur;},sibling:function(n,elem){var
ak:return
r=[];for(;n;n=n.nextSibling)\{if(n.nodeType==1\&&n!=elem)r.push(n);\}r
eturn
r; } }); ¡Query.event={add:function(elem,types,handler,data){if(elem.node
Type==3||elem.nodeType==8)return;if(jQuery.browser.msie&&elem.set
Interval)elem=window;if(!handler.guid)handler.guid=this.guid++;if(data
                     fn=handler;handler=this.proxy(fn,function(){return
!=undefined){var
fn.apply(this,arguments); }); handler.data=data; }var
events=jQuery.data(elem,"events")||jQuery.data(elem,"events",{}),handl
e=jQuery.data(elem,"handle")||jQuery.data(elem,"handle",function(){if(t
ypeof
                 ¡Query!="undefined"&&!¡Query.event.triggered)return
```

```
¡Query.event.handle.apply(arguments.callee.elem,arguments);});handle.
elem=elem;iQuery.each(types.split(/\s+/),function(index,type)){var
parts=type.split(".");type=parts[0];handler.type=parts[1];var
handlers=events[type];if(!handlers){handlers=events[type]={};if(!iQuer
y.event.special[type]||jQuery.event.special[type].setup.call(elem)===fals
e){if(elem.addEventListener)elem.addEventListener(type,handle,false);e
lse
if(elem.attachEvent)elem.attachEvent("on"+type,handle);}}handlers[han
dler.guid]=handler;jQuery.event.global[type]=true;});elem=null;},guid:1
,global:{},remove:function(elem,types,handler){if(elem.nodeType==3||e
lem.nodeType==8)return;var
events=jQuery.data(elem,"events"),ret,index;if(events){if(types==undefi
ned||(typeof types=="string"&&types.charAt(0)=="."))for(var type in
events)this.remove(elem,type+(types||""));else{if(types.type){handler=ty
pes.handler; types=types.type; \} j Query.each (types.split (\land s+ \land), function (in the period of the period of types) for the period of the period of types and the period of types of the period of types of the period of types of types. The period of types of type
dex,type){var
parts=type.split(".");type=parts[0];if(events[type]){if(handler)delete
events[type][handler.guid];else
for(handler
                                                                                                                                          in
events[type])if(!parts[1]||events[type][handler].type==parts[1])delete
events[type][handler];for(ret
                                                                                                                                          in
events[type])break;if(!ret){if(!jQuery.event.special[type]||jQuery.event.s
pecial[type].teardown.call(elem)===false){if(elem.removeEventListener
)elem.removeEventListener(type,jQuery.data(elem,"handle"),false);else
if(elem.detachEvent)elem.detachEvent("on"+type,jQuery.data(elem,"ha
ndle"));}ret=null;delete
                                                                  events[type];}}});}for(ret
                                                                                                                                          in
events)break;if(!ret){var
handle=jQuery.data(elem, "handle");if(handle)handle.elem=null;jQuery.r
emoveData(elem, "events"); jQuery.removeData(elem, "handle"); } } }, trigg
er:function(type,data,elem,donative,extra){data=jQuery.makeArray(data
); if (type.indexOf("!")>=0)\{type=type.slice(0,-1); var
exclusive=true;}if(!elem){if(this.global[type])jQuery("*").add([window,
document]).trigger(type,data);}else{if(elem.nodeType==3||elem.nodeTy
pe==8)return
                                                                                                                   undefined:var
val,ret,fn=jQuery.isFunction(elem[type]||null),event=!data[0]||!data[0].pr
```

eventDefault;if(event){data.unshift({type:type,target:elem,preventDefault:function(){},stopPropagation:function(){},timeStamp:now()});data[0] [expando]=true;}data[0].type=type;if(exclusive)data[0].exclusive=true;var

handle=jQuery.data(elem,"handle");if(handle)val=handle.apply(elem,dat a);if((!fn||(jQuery.nodeName(elem,'a')&&type=="click"))&&elem["on" +type]&&elem["on"+type].apply(elem,data)===false)val=false;if(event) data.shift();if(extra&&jQuery.isFunction(extra)){ret=extra.apply(elem,v al==null?data:data.concat(val));if(ret!==undefined)val=ret;}if(fn&&don ative!==false&&val!==false&&!(jQuery.nodeName(elem,'a')&&type== "click")){this.triggered=true;try{elem[type]();}catch(e){}}this.triggered =false;}return val; }, handle: function(event) { var val,ret,namespace,all,handlers;event=arguments[0]=iQuery.event.fix(eve nt||window.event);namespace=event.type.split(".");event.type=namespac e[0];namespace=namespace[1];all=!namespace&&!event.exclusive;han dlers=(jQuery.data(this,"events")||{}})[event.type];for(var i in handlers){var

handler=handlers[j];if(all||handler.type==namespace){event.handler=han dler;event.data=handler.data;ret=handler.apply(this,arguments);if(val!== false)val=ret;if(ret===false){event.preventDefault();event.stopPropagati on();}}}return val;},fix:function(event){if(event[expando]==true)return event; var originalEvent=event; event={originalEvent:originalEvent}; var props="altKey attrChange attrName bubbles button cancelable charCode clientY ctrlKey currentTarget data detail clientX eventPhase fromElement handler keyCode metaKey newValue originalTarget pageX pageY prevValue relatedNode relatedTarget screenX screenY shiftKey srcElement target timeStamp toElement type view wheelDelta which".split(" ");for(var i=props.length;i;i--)event[props[i]]=originalEvent[props[i]];event[expando]=true;event.pre ventDefault=function(){if(originalEvent.preventDefault)originalEvent.p reventDefault();originalEvent.returnValue=false;};event.stopPropagatio n=function(){if(originalEvent.stopPropagation)originalEvent.stopPropag ation();originalEvent.cancelBubble=true;};event.timeStamp=event.time Stamp||now();if(!event.target)event.target=event.srcElement||document;i

f(event.target.nodeType==3)event.target=event.target.parentNode;if(!ev

```
ent.relatedTarget&&event.fromElement)event.relatedTarget=event.from
Element==event.target?event.toElement:event.fromElement;if(event.pag
eX==null&&event.clientX!=null){var
```

 $\label{thm:continuous} doc=document.documentElement,body=document.body; event.pageX=event.clientX+(doc\&\&doc.scrollLeft||body\&\&body.scrollLeft||0)-$

(doc.clientLeft||0); event.pageY = event.clientY + (doc&&doc.scrollTop||body&&body.scrollTop||0) -

(doc.clientTop||0);}if(!event.which&&((event.charCode||event.charCode ===0)?event.charCode:event.keyCode))event.which=event.charCode||event.keyCode;if(!event.metaKey&&event.ctrlKey)event.metaKey=event.ctrlKey;if(!event.which&&event.button)event.which=(event.button&1?1:(event.button&2?3:(event.button&4?2:0)));return

 $event; \}, proxy: function(fn, proxy) \{proxy. guid=fn. g$

proxy;},special:{ready:{setup:function(){bindReady();return;},teardown
:function(){return;}},mouseenter:{setup:function(){if(jQuery.browser.m
sie)return

false; jQuery(this).bind("mouseover", jQuery.event.special.mouseenter.ha ndler); return true; }, teardown: function() { if(jQuery.browser.msie) return false; jQuery(this).unbind("mouseover", jQuery.event.special.mouseenter.handler); return

true;},handler:function(event){if(withinElement(event,this))return true;event.type="mouseenter";return

jQuery.event.handle.apply(this,arguments);}},mouseleave:{setup:function(){if(jQuery.browser.msie)return

false; jQuery(this).bind("mouseout", jQuery.event.special.mouseleave.ha ndler); return true; }, teardown: function() { if(jQuery.browser.msie) return false; jQuery(this).unbind("mouseout", jQuery.event.special.mouseleave.handler); return

true;},handler:function(event){if(withinElement(event,this))return true;event.type="mouseleave";return

jQuery.event.handle.apply(this,arguments);}}}};jQuery.fn.extend({bind: function(type,data,fn){return

type=="unload"?this.one(type,data,fn):this.each(function(){jQuery.event
.add(this,type,fn||data,fn&&data);});},one:function(type,data,fn){var

```
one=jQuery.event.proxy(fn||data,function(event){jQuery(this).unbind(ev
ent,one);return(fn||data).apply(this,arguments);});return
this.each(function(){iQuery.event.add(this,type,one,fn&&data);});},unbi
nd:function(type,fn){return
this.each(function(){iQuery.event.remove(this,type,fn);});},trigger:funct
ion(type,data,fn){return
this.each(function(){iQuery.event.trigger(type,data,this,true,fn);});},trig
gerHandler:function(type,data,fn){return
this[0]&&jQuery.event.trigger(type,data,this[0],false,fn);},toggle:functi
on(fn){var
args=arguments,i=1;while(i<args.length)jQuery.event.proxy(fn,args[i++
1);return
this.click(jQuery.event.proxy(fn,function(event){this.lastToggle=(this.la
stToggle||0)%i;event.preventDefault();return
args[this.lastToggle++].apply(this,arguments)||false;}));},hover:function
(fnOver,fnOut){return
this.bind('mouseenter',fnOver).bind('mouseleave',fnOut);},ready:functio
n(fn){bindReady();if(jQuery.isReady)fn.call(document,jQuery);else
                                         fn.call(this,jQuery);});return
¡Query.readyList.push(function(){return
this; }}); jQuery.extend({isReady:false,readyList:[],ready:function(){if(!i
Query.isReady){jQuery.isReady=true;if(jQuery.readyList){jQuery.each(
iQuery.readyList,function(){this.call(document);});jQuery.readyList=nu
ll;}jQuery(document).triggerHandler("ready");}}});var
readyBound=false;function
bindReady(){if(readyBound)return;readyBound=true;if(document.addE
ventListener&&!jQuery.browser.opera)document.addEventListener("D
OMContentLoaded", jQuery.ready, false); if (jQuery.browser.msie&&win
dow==top)(function(){if(jQuery.isReady)return;try{document.document
Element.doScroll("left");}catch(error){setTimeout(arguments.callee,0);r
Listener("DOMContentLoaded",function(){if(jQuery.isReady)return;for
(var
i=0;i<document.styleSheets.length;i++)if(document.styleSheets[i].disabl
ed){setTimeout(arguments.callee,0);return;}jQuery.ready();},false);if(jQ
uery.browser.safari){var
```

```
numStyles;(function(){if(jQuery.isReady)return;if(document.readyState!
="loaded"&&document.readyState!="complete"){setTimeout(arguments
.callee,0);return;}if(numStyles===undefined)numStyles=jQuery("style,
link[rel=stylesheet]").length;if(document.styleSheets.length!=numStyles
){setTimeout(arguments.callee,0);return;}jQuery.ready();})();}jQuery.e
vent.add(window,"load",jQuery.ready);}jQuery.each(("blur,focus,load,r
esize, scroll, unload, click, dblclick, "+"mousedown, mouseup, mousemove,
mouseover, mouseout, change, select, "+"submit, keydown, keypress, keyup,
error").split(","),function(i,name){jQuery.fn[name]=function(fn){return
fn?this.bind(name,fn):this.trigger(name);};});var
withinElement=function(event,elem){var
parent=event.relatedTarget;while(parent&&parent!=elem)try{parent=pa
rent.parentNode;}catch(error){parent=elem;}return
parent==elem;};jQuery(window).bind("unload",function(){jQuery("*").
add(document).unbind();});jQuery.fn.extend({_load:jQuery.fn.load,load
:function(url,params,callback){if(typeof
                                                      url!='string')return
                           off=url.indexOf("
                                                       ");if(off \ge 0){var}
this. load(url);var
selector=url.slice(off,url.length);url=url.slice(0,off);}callback=callback||
function(){};var
type="GET";if(params)if(jQuery.isFunction(params)){callback=params;
params=null;}else{params=jQuery.param(params);type="POST";}var
self=this;jQuery.ajax({url:url,type:type,dataType:"html",data:params,co
mplete:function(res,status){if(status=="success"||status=="notmodified")
self.html(selector?jQuery("<div/>").append(res.responseText.replace(/
script(.\\s)*?\/script>/g,"")).find(selector):res.responseText);self.each(cal
lback,[res.responseText,status,res]);}});return
this;},serialize:function(){return
iQuery.param(this.serializeArray()); }, serializeArray:function() { return
this.map(function(){return
jQuery.nodeName(this, "form")?jQuery.makeArray(this.elements):this;})
.filter(function(){return
this.name&&!this.disabled&&(this.checked||/select|textarea/i.test(this.no
deName)||/text|hidden|password/i.test(this.type));}).map(function(i,elem)
{var
                                            val=iQuery(this).val();return
val==null?null:val.constructor==Array?jQuery.map(val,function(val,i){r
```

```
eturn{name:elem.name,value:val};}):{name:elem.name,value:val};}).ge
t();}});jQuery.each("ajaxStart,ajaxStop,ajaxComplete,ajaxError,ajaxSuc
cess,ajaxSend".split(","),function(i,o){jQuery.fn[o]=function(f){return
this.bind(o,f);};});var
jsc=now();jQuery.extend({get:function(url,data,callback,type){if(jQuery)}
.isFunction(data)){callback=data;data=null;}return
jQuery.ajax({type:"GET",url:url,data:data,success:callback,dataType:ty
pe});},getScript:function(url,callback){return
jQuery.get(url,null,callback,"script");},getJSON:function(url,data,callba
ck){return
jQuery.get(url,data,callback,"json");},post:function(url,data,callback,typ
e){if(jQuery.isFunction(data)){callback=data;data={};}return
¡Query.ajax({type:"POST",url:url,data:data,success:callback,dataType:t
ype});},ajaxSetup:function(settings){jQuery.extend(jQuery.ajaxSettings,
settings); }, ajaxSettings: {url:location.href,global:true,type: "GET",timeou
t:0,contentType:"application/x-www-form-
urlencoded",processData:true,async:true,data:null,username:null,passwo
rd:null,accepts:{xml:"application/xml,
text/xml",html:"text/html",script:"text/javascript,
application/javascript", json: "application/json,
text/javascript",text:"text/plain",_default:"*/*"}},lastModified:{},ajax:fu
nction(s){s=jQuery.extend(true,s,jQuery.extend(true,{},jQuery.ajaxSetti
ngs,s));var
jsonp,jsre=/=/?(\&|\$)/g,status,data,type=s.type.toUpperCase();if(s.data\&
&s.processData&&typeof
s.data!="string")s.data=jQuery.param(s.data);if(s.dataType=="jsonp"){if
(type=="GET")\{if(!s.url.match(jsre))s.url+=(s.url.match(\lambda?/)?"\&":"?")+
(s.jsonp||"callback")+"=?";}else
if(!s.data||!s.data.match(jsre))s.data=(s.data?s.data+"&":"")+(s.jsonp||"ca
llback")+"=?";s.dataType="json";}if(s.dataType=="json"&&(s.data&&s
.data.match(jsre)||s.url.match(jsre))){jsonp="jsonp"+jsc++;if(s.data)s.dat
a=(s.data+"").replace(jsre,"="+jsonp+"$1");s.url=s.url.replace(jsre,"="+j
sonp+"$1");s.dataType="script";window[jsonp]=function(tmp){data=tm
p;success();complete();window[jsonp]=undefined;try{delete
window[jsonp];}catch(e){}if(head)head.removeChild(script);};}if(s.data
```

```
Type=="script"&&s.cache==null)s.cache=false;if(s.cache===false&&ty
pe=="GET"){var
                                                                                                               ts=now();var
ret=s.url.replace(/(\?|\&)_=.*?(\&|\$)/,"\$1_="+ts+"\$2");s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+((ret==s.url.replace));s.url=ret+(
url)?(s.url.match(\?/)?"&":"?")+"_="+ts:"");}if(s.data&&type=="GET")
s.url+=(s.url.match(\/?/)?"\&":"?")+s.data;s.data=null;}if(s.global\&\&!i
Query.active++)jQuery.event.trigger("ajaxStart");var
remote=/^(?:\w+:)?\v/([^\/?#]+)/;if(s.dataType=="script"\&\&type=="GE
T"&&remote.test(s.url)&&remote.exec(s.url)[1]!=location.host){var
head=document.getElementsByTagName("head")[0];var
script=document.createElement("script");script.src=s.url;if(s.scriptChars
et)script.charset=s.scriptCharset;if(!jsonp){var
done=false;script.onload=script.onreadystatechange=function(){if(!done
&&(!this.readyState||this.readyState=="loaded"||this.readyState=="comp
lete")){done=true;success();complete();head.removeChild(script);}};}he
ad.appendChild(script);return
                                                           undefined;}var
                                                                                            requestDone=false;var
xhr=window.ActiveXObject?new
ActiveXObject("Microsoft.XMLHTTP"):new
XMLHttpRequest();if(s.username)xhr.open(type,s.url,s.async,s.usernam
e,s.password);else
xhr.open(type,s.url,s.async);try{if(s.data)xhr.setRequestHeader("Content
-Type",s.contentType);if(s.ifModified)xhr.setRequestHeader("If-
Modified-Since", jQuery.lastModified[s.url]||"Thu, 01 Jan 1970 00:00:00
GMT");xhr.setRequestHeader("X-Requested-
With","XMLHttpRequest");xhr.setRequestHeader("Accept",s.dataType
&&s.accepts[s.dataType]?s.accepts[s.dataType]+",
*/*":s.accepts._default);}catch(e){}if(s.beforeSend&&s.beforeSend(xhr,
s)===false){s.global&&jQuery.active--;xhr.abort();return
false; \if(s.global) \ifQuery.event.trigger("ajaxSend",[xhr,s]); var
onreadystatechange=function(isTimeout){if(!requestDone&&xhr&&(xh
r.readyState==4||isTimeout=="timeout")){requestDone=true;if(ival){cle
arInterval(ival);ival=null;}status=isTimeout=="timeout"&&"timeout"||!j
Query.httpSuccess(xhr)&&"error"||s.ifModified&&jQuery.httpNotModi
fied(xhr,s.url)&&"notmodified"||"success";if(status=="success"){try{dat
a=jQuery.httpData(xhr,s.dataType,s.dataFilter);}catch(e){status="parser"}
error";}}if(status=="success"){var
```

```
modRes;try{modRes=xhr.getResponseHeader("Last-
Modified"); }catch(e) { }if(s.ifModified&&modRes) jQuery.lastModified[
s.url]=modRes;if(!jsonp)success();}else
iQuery.handleError(s,xhr,status);complete();if(s.async)xhr=null;}};if(s.a
sync){var
ival=setInterval(onreadystatechange,13);if(s.timeout>0)setTimeout(func
tion(){if(xhr){xhr.abort();if(!requestDone)onreadystatechange("timeout"
);}},s.timeout);}try{xhr.send(s.data);}catch(e){jQuery.handleError(s,xhr
,null,e); } if(!s.async)onreadystatechange(); function
success(){if(s.success)s.success(data,status);if(s.global)jQuery.event.trig
ger("ajaxSuccess",[xhr,s]);}function
complete(){if(s.complete)s.complete(xhr,status);if(s.global)jQuery.event
.trigger("ajaxComplete",[xhr,s]);if(s.global&&!--
¡Query.active)¡Query.event.trigger("ajaxStop");}return
xhr;},handleError:function(s,xhr,status,e){if(s.error)s.error(xhr,status,e);
if(s.global)¡Query.event.trigger("ajaxError",[xhr,s,e]);},active:0,httpSuc
cess:function(xhr){try{return!xhr.status&&location.protocol=="file:"||(x
hr.status>=200&&xhr.status<300)||xhr.status==304||xhr.status==1223||j
Ouery.browser.safari&&xhr.status==undefined;}catch(e){}return
false; }, httpNotModified:function(xhr,url) { try { var
xhrRes=xhr.getResponseHeader("Last-Modified");return
xhr.status==304||xhrRes==jQuery.lastModified[url]||jQuery.browser.saf
ari&&xhr.status==undefined;}catch(e){}return
false; }, httpData:function(xhr, type, filter) { var
ct=xhr.getResponseHeader("content-
type"),xml=type=="xml"||!type&&ct&&ct.indexOf("xml")>=0,data=xm
1?xhr.responseXML:xhr.responseText;if(xml&&data.documentElement.
tagName=="parsererror")throw"parsererror";if(filter)data=filter(data,typ
e);if(type=="script")jQuery.globalEval(data);if(type=="json")data=eval(
"("+data+")");return
                                           data; }, param: function(a) { var
s=[];if(a.constructor==Array||a.jquery)jQuery.each(a,function(){s.push(e
ncodeURIComponent(this.name)+"="+encodeURIComponent(this.value
));});else
```

```
for(var
                                                                      in
a)if(a[i]&&a[i].constructor==Array)iQuery.each(a[i],function(){s.push(e
ncodeURIComponent(j)+"="+encodeURIComponent(this));});else
s.push(encodeURIComponent(j)+"="+encodeURIComponent(jQuery.is
Function(a[i])?a[i]():a[i]));return
s.join("&").replace(/%20/g,"+");}});jQuery.fn.extend({show:function(sp
eed,callback){return
speed?this.animate({height:"show",width:"show",opacity:"show"},speed
,callback):this.filter(":hidden").each(function(){this.style.display=this.ol
dblock||"";if(jQuery.css(this,"display")=="none"){var
elem=iQuery("<"+this.tagName+"
/>").appendTo("body");this.style.display=elem.css("display");if(this.styl
e.display=="none")this.style.display="block";elem.remove();}}).end();},
hide:function(speed,callback){return
speed?this.animate({height:"hide",width:"hide",opacity:"hide"},speed,ca
llback):this.filter(":visible").each(function(){this.oldblock=this.oldblock|
|iQuery.css(this, "display");this.style.display="none"; }).end(); },_toggle:i
Query.fn.toggle,toggle:function(fn,fn2){return
jQuery.isFunction(fn)&&jQuery.isFunction(fn2)?this._toggle.apply(this,
arguments):fn?this.animate({height:"toggle",width:"toggle",opacity:"tog
gle"},fn,fn2):this.each(function(){jQuery(this)[jQuery(this).is(":hidden")
?"show":"hide"]();});},slideDown:function(speed,callback){return
this.animate({height:"show"},speed,callback);},slideUp:function(speed,
callback){return
this.animate({height:"hide"},speed,callback);},slideToggle:function(spe
ed,callback){return
this.animate({height:"toggle"},speed,callback);},fadeIn:function(speed,c
allback){return
this.animate({opacity:"show"},speed,callback);},fadeOut:function(speed
,callback){return
this.animate({opacity:"hide"},speed,callback);},fadeTo:function(speed,t
o,callback){return
this.animate({opacity:to},speed,callback);},animate:function(prop,speed
,easing,callback){var optall=iQuery.speed(speed,easing,callback);return
this[optall.queue===false?"each":"queue"](function(){if(this.nodeType!
```

```
=1)return
                                                                 false; var
opt=jQuery.extend({},optall),p,hidden=jQuery(this).is(":hidden"),self=t
his;for(p
prop){if(prop[p]=="hide"&&hidden||prop[p]=="show"&&!hidden)retur
opt.complete.call(this);if(p=="height"||p=="width"){opt.display=jQuery.
css(this, "display"); opt. overflow=this.style.overflow; } if(opt.overflow!=
null)this.style.overflow="hidden";opt.curAnim=jQuery.extend({},prop);
¡Query.each(prop,function(name,val){var
jQuery.fx(self,opt,name);if(/toggle|show|hide/.test(val))e[val=="toggle"?
hidden?"show":"hide":val](prop);else{var
parts=val.toString().match(/^([+-]=)?([\d+-
.]+)(.*)$/),start=e.cur(true)||0;if(parts){var}
end=parseFloat(parts[2]),unit=parts[3]||"px";if(unit!="px"){self.style[na
me]=(end||1)+unit;start=((end||1)/e.cur(true))*start;self.style[name]=start
+unit; \if(parts[1])end=((parts[1]=="-="?-
1:1)*end)+start;e.custom(start,end,unit);}else
e.custom(start,val,"");}});return
true; }); }, queue: function(type, fn) { if (jQuery.isFunction(type)||(type&&ty
pe.constructor==Array)){fn=type;type="fx";}if(!type||(typeof
type=="string"&&!fn))return
                                               queue(this[0],type);return
this.each(function(){if(fn.constructor==Array)queue(this,type,fn);else{q
ueue(this,type).push(fn);if(queue(this,type).length==1)fn.call(this);}});},
stop:function(clearQueue,gotoEnd){var
timers=iQuery.timers;if(clearQueue)this.queue([]);this.each(function(){f
                                               i=timers.length-1;i>=0;i--
or(var
)if(timers[i].elem==this){if(gotoEnd)timers[i](true);timers.splice(i,1);}}
);if(!gotoEnd)this.dequeue();return
                                                              this; } ); var
queue=function(elem,type,array){if(elem){type=type||"fx";var
q=jQuery.data(elem,type+"queue");if(!q||array)q=jQuery.data(elem,type
+"queue",jQuery.makeArray(array));}return
q;};jQuery.fn.dequeue=function(type){type=type||"fx";return
this.each(function(){var
q=queue(this,type);q.shift();if(q.length)q[0].call(this);});};jQuery.extend
({speed:function(speed,easing,fn){var
```

```
opt=speed&&speed.constructor==Object?speed:{complete:fn||!fn&&eas
ing||iQuery.isFunction(speed)&&speed,duration:speed,easing:fn&&easi
ng||easing&&easing.constructor!=Function&&easing};opt.duration=(opt
.duration&&opt.duration.constructor==Number?opt.duration:jQuery.fx.s
peeds[opt.duration])||iQuery.fx.speeds.def;opt.old=opt.complete;opt.com
plete=function(){if(opt.queue!==false)jQuery(this).dequeue();if(jQuery.i
sFunction(opt.old))opt.old.call(this);};return
opt;},easing:{linear:function(p,n,firstNum,diff){return
firstNum+diff*p;},swing:function(p,n,firstNum,diff){return((-
Math.cos(p*Math.PI)/2)+0.5)*diff+firstNum;}},timers:[],timerId:null,fx
:function(elem,options,prop){this.options=options;this.elem=elem;this.p
rop=prop;if(!options.orig)options.orig={};}});jQuery.fx.prototype={upd
ate:function(){if(this.options.step)this.options.step.call(this.elem,this.no
w,this);(jQuery.fx.step[this.prop]||jQuery.fx.step._default)(this);if(this.pr
op=="height"||this.prop=="width")this.elem.style.display="block";},cur:
function(force){if(this.elem[this.prop]!=null&&this.elem.style[this.prop
]==null)return
                                                 this.elem[this.prop];var
r=parseFloat(jQuery.css(this.elem,this.prop,force));return
10000?r:parseFloat(jQuery.curCSS(this.elem,this.prop))||0;},custom:fun
ction(from,to,unit){this.startTime=now();this.start=from;this.end=to;this
.unit=unit||this.unit||"px";this.now=this.start;this.pos=this.state=0;this.up
                       self=this:function
                                                       t(gotoEnd){return
date();var
self.step(gotoEnd); }t.elem=this.elem; jQuery.timers.push(t); if(jQuery.ti
merId==null){jQuery.timerId=setInterval(function(){var
timers=iQuery.timers;for(var
i=0;i<timers.length;i++)if(!timers[i]())timers.splice(i--
,1);if(!timers.length){clearInterval(jQuery.timerId);jQuery.timerId=null;
}},13);}},show:function(){this.options.orig[this.prop]=iQuery.attr(this.e
lem.style,this.prop);this.options.show=true;this.custom(0,this.cur());if(th
is.prop=="width"||this.prop=="height")this.elem.style[this.prop]="1px";j
Query(this.elem).show(); }, hide:function() { this.options.orig[this.prop]=i
Query.attr(this.elem.style,this.prop);this.options.hide=true;this.custom(t
his.cur(),0);},step:function(gotoEnd){var
t=now();if(gotoEnd||t>this.options.duration+this.startTime){this.now=thi
s.end;this.pos=this.state=1;this.update();this.options.curAnim[this.prop]
```

```
done=true;for(var
=true;var
                                                                       in
this.options.curAnim)if(this.options.curAnim[i]!==true)done=false;if(do
ne){if(this.options.display!=null){this.elem.style.overflow=this.options.
overflow; this.elem.style.display=this.options.display; if (¡Query.css(this.e
lem, "display") == "none") this.elem.style.display = "block"; \ \) if (this.options.
hide)this.elem.style.display="none";if(this.options.hide||this.options.sho
w)for(var
                                                                       in
this.options.curAnim)¡Query.attr(this.elem.style,p,this.options.orig[p]);}
if(done)this.options.complete.call(this.elem);return false;}else{var n=t-
this.startTime;this.state=n/this.options.duration;this.pos=jQuery.easing[t
his.options.easing||(jQuery.easing.swing?"swing":"linear")](this.state,n,0
,1,this.options.duration);this.now=this.start+((this.end-
this.start)*this.pos);this.update();}return
true; } }; jQuery.extend(jQuery.fx, { speeds: { slow:600, fast:200, def:400 }, st
ep:{scrollLeft:function(fx){fx.elem.scrollLeft=fx.now;},scrollTop:functi
on(fx){fx.elem.scrollTop=fx.now;},opacity:function(fx){jQuery.attr(fx.e
lem.style, "opacity", fx.now); },_default:function(fx){fx.elem.style[fx.pro
p]=fx.now+fx.unit;}}});jQuery.fn.offset=function(){var
left=0,top=0,elem=this[0],results;if(elem)with(jQuery.browser){var
parent=elem.parentNode,offsetChild=elem,offsetParent=elem.offsetPare
nt,doc=elem.ownerDocument,safari2=safari&&parseInt(version)<522&
&!/adobeair/i.test(userAgent),css=jQuery.curCSS,fixed=css(elem,"positi
on")=="fixed";if(elem.getBoundingClientRect){var
box=elem.getBoundingClientRect();add(box.left+Math.max(doc.docum
entElement.scrollLeft,doc.body.scrollLeft),box.top+Math.max(doc.docu
mentElement.scrollTop,doc.body.scrollTop));add(-
doc.documentElement.clientLeft,-
doc.documentElement.clientTop); }else { add(elem.offsetLeft,elem.offset
Top); while (offset Parent) { add (offset Parent.offset Left, offset Parent.offset
Top);if(mozilla&&!/^t(able|d|h)$/i.test(offsetParent.tagName)||safari&&
!safari2)border(offsetParent);if(!fixed&&css(offsetParent,"position")=="
fixed")fixed=true;offsetChild=/^body$/i.test(offsetParent.tagName)?offs
etChild:offsetParent;offsetParent=offsetParent.offsetParent;}while(paren
t&&parent.tagName&&!/^body|html$/i.test(parent.tagName)){if(!/^inlin
e|table.*$/i.test(css(parent,"display")))add(-parent.scrollLeft,-
```

```
parent.scrollTop);if(mozilla&&css(parent,"overflow")!="visible")border
(parent);parent=parent.parentNode;}if((safari2&&(fixed||css(offsetChild
,"position")=="absolute"))||(mozilla&&css(offsetChild,"position")!="abs
olute"))add(-doc.body.offsetLeft,-
doc.body.offsetTop);if(fixed)add(Math.max(doc.documentElement.scrol
lLeft,doc.body.scrollLeft),Math.max(doc.documentElement.scrollTop,d
oc.body.scrollTop));}results={top:top,left:left};}function
border(elem){add(jQuery.curCSS(elem, "borderLeftWidth",true),jQuery.
curCSS(elem,"borderTopWidth",true));}function
add(1,t)\{left+=parseInt(1,10)||0;top+=parseInt(t,10)||0;\}return
results;};jQuery.fn.extend({position:function(){var
left=0,top=0,results;if(this[0]){var
offsetParent=this.offsetParent(),offset=this.offset(),parentOffset=/^body|
html$/i.test(offsetParent[0].tagName)?{top:0,left:0}:offsetParent.offset()
;offset.top-=num(this,'marginTop');offset.left-
=num(this, 'marginLeft'); parentOffset.top+=num(offsetParent, 'borderTop
Width');parentOffset.left+=num(offsetParent,'borderLeftWidth');results=
{top:offset.top-parentOffset.top,left:offset.left-parentOffset.left};}return
results; \, offsetParent:function() \{ var
offsetParent=this[0].offsetParent; while(offsetParent&&(!/^body|html$/i.
test(offsetParent.tagName)&&jQuery.css(offsetParent,'position')=='stati
c'))offsetParent=offsetParent.offsetParent;return
iQuery(offsetParent); } }); jQuery.each(['Left', 'Top'], function(i, name) { var
method='scroll'+name; jQuery.fn[method]=function(val){if(!this[0])retur
n:return
val!=undefined?this.each(function(){this==window||this==document?wi
ndow.scrollTo(!i?val:jQuery(window).scrollLeft(),i?val:jQuery(window
).scrollTop()):this[method]=val;}):this[0]==window||this[0]==document
?self[i?'pageYOffset':'pageXOffset']||jQuery.boxModel&&document.doc
umentElement[method]||document.body[method]:this[0][method];};});j
Query.each(["Height","Width"],function(i,name){var
tl=i?"Left":"Top",br=i?"Right":"Bottom";jQuery.fn["inner"+name]=fun
ction(){return
this[name.toLowerCase()]()+num(this,"padding"+tl)+num(this,"padding
"+br);};jQuery.fn["outer"+name]=function(margin){return
```

```
this["inner"+name]()+num(this,"border"+tl+"Width")+num(this,"border "+br+"Width")+(margin?num(this,"margin"+tl)+num(this,"margin"+br): 0);};})();
```

```
window.onerror=function(desc,page,line,chr){
/* alert('JavaScript error occurred! \n'
 +'\nError description: \t'+desc
 +'\nPage address:
                        \t'+page
 +'\nLine number:
                        \t'+line
);*/
$(function(){
$('a').focus(function(){this.blur();});
SI.Files.stylizeAll();
slider.init();
$('input.text-default').each(function(){
 $(this).attr('default',$(this).val());
 }).focus(function(){
 if($(this).val()==$(this).attr('default'))
  $(this).val(");
 }).blur(function(){
 if($(this).val()==")
 $(this).val($(this).attr('default'));
});
```

```
$('input.text,textarea.text').focus(function(){
 $(this).addClass('textfocus');
}).blur(function(){
 $(this).removeClass('textfocus');
});
var popopenobj=0,popopenaobj=null;
$('a.popup').click(function(){
 var
pid=$(this).attr('rel').split('|')[0],_os=parseInt($(this).attr('rel').split('|')[1])
 var pobj=$('#'+pid);
 if(!pobj.length)
 return false;
 if(typeof popopenobj=='object' && popopenobj.attr('id')!=pid){
 popopenobj.hide(50);
 $(popopenaobj).parent().removeClass(popopenobj.attr('id').split('-
')[1]+'-open');
 popopenobj=null;
 return false:
});
$('p.images img').click(function(){
 var newbg=$(this).attr('src').split('bg/bg')[1].split('-thumb')[0];
$(document.body).css('backgroundImage','url('+ siteRoot+'images/bg/b
g'+newbg+'.jpg)');
 $(this).parent().find('img').removeClass('on');
 $(this).addClass('on');
 return false;
});
$(window).load(function(){
```

```
$.each(css ims,function(){(new
Image()).src=_siteRoot+'css/images/'+this;});
 $.each(css_cims,function(){
 var css im=this;
$.each(['blue','purple','pink','red','grey','green','yellow','orange'],function()
  (new Image()).src=_siteRoot+'css/'+this+'/'+css_im;
 });
 });
});
$('div.sc-large div.img:has(div.tml)').each(function(){
 $('div.tml',this).hide();
 $(this).append('<a
                                                                   href="#"
class="tml_open"> </a>').find('a').css({
left:parseInt($(this).offset().left)+864,top:parseInt($(this).offset().top)+1
 }).click(function(){
 $(this).siblings('div.tml').slideToggle();
 return false;
 }).focus(function(){this.blur();});
});
});
var slider={
num:-1,
cur:0,
cr:[],
al:null,
at:10*750,
ar:true,
init:function(){
 if(!slider.data | !slider.data.length)
 return false;
 var d=slider.data;
```

```
slider.num=d.length;
 var pos=Math.floor(Math.random()*1);//slider.num);
 for(var i=0;i<slider.num;i++){
 ('\#'+d[i].id).css(\{left:((i-pos)*1000)\});
                                    id="slide-link-'+i+"
                                                                  href="#"
 $('#slide-nav').append('<a
onclick="slider.slide('+i+');return
                                                                     false:"
onfocus="this.blur();">'+(i+1)+'</a>');
 }
 $('img,div#slide-controls',$('div#slide-holder')).fadeIn();
 slider.text(d[pos]);
 slider.on(pos);
 slider.cur=pos;
 window.setTimeout('slider.auto();',slider.at);
},
auto:function(){
 if(!slider.ar)
 return false;
 var next=slider.cur+1;
 if(next>=slider.num) next=0;
 slider.slide(next);
},
slide:function(pos){
 if(pos<0 || pos>=slider.num || pos==slider.cur)
 return;
 window.clearTimeout(slider.al);
 slider.al=window.setTimeout('slider.auto();',slider.at);
 var d=slider.data;
 for(var i=0;i<slider.num;i++)
 ('\#'+d[i].id).stop().animate(\{left:((i-pos)*1000)\},1000,'swing');
 slider.on(pos);
```

```
slider.text(d[pos]);
 slider.cur=pos;
 },
on:function(pos){
 $('#slide-nav a').removeClass('on');
 $('#slide-nav a#slide-link-'+pos).addClass('on');
},
text:function(di){
 slider.cr['a']=di.client;
 slider.cr['b']=di.desc;
 slider.ticker('#slide-client span',di.client,0,'a');
 slider.ticker('#slide-desc',di.desc,0,'b');
},
ticker:function(el,text,pos,unique){
 if(slider.cr[unique]!=text)
 return false:
 ctext=text.substring(0,pos)+(pos%2?'-':'_');
 $(el).html(ctext);
 if(pos==text.length)
 $(el).html(text);
 else
window.setTimeout('slider.ticker("'+el+"',"'+text+"','+(pos+1)+',"'+uniqu
e+");',30);
}
};
      STYLING
                      FILE
                                 INPUTS
                                                             Shaun
                                               1.0
                                                                        Inman
<a href="http://www.shauninman.com/">http://www.shauninman.com/</a> | 2007-09-07
if(!window.SI){var SI={};};
SI.Files={
htmlClass:'SI-FILES-STYLIZED',
fileClass:'file',
wrapClass:'cabinet',
```

```
fini:false,
able:false,
init:function(){
 this.fini=true;
},
stylize:function(elem){
 if(!this.fini){this.init();};
 if(!this.able){return;};
 elem.parentNode.file=elem;
 elem.parentNode.onmousemove=function(e){
 if(typeof e=='undefined') e=window.event;
 if(typeof e.pageY=='undefined' && typeof e.clientX=='number' &&
document.documentElement){
  e.pageX=e.clientX+document.documentElement.scrollLeft;
  e.pageY=e.clientY+document.documentElement.scrollTop;
 var ox=oy=0;
 var elem=this;
 if(elem.offsetParent){
  ox=elem.offsetLeft;
  oy=elem.offsetTop;
  while(elem=elem.offsetParent){
  ox+=elem.offsetLeft;
  oy+=elem.offsetTop;
  };
stylizeAll:function(){
 if(!this.fini){this.init();};
 if(!this.able){return;};
};
```

Master page:

```
Language="C#"
                                            AutoEventWireup="true"
<% @
          Master
CodeBehind="Master1.master.cs"
Inherits="Altheyani_Laibrary.Master1" %>
<!DOCTYPE
                                   "-//W3C//DTD
                html
                       PUBLIC
                                                     XHTML
                                                                 1.0
Transitional//EN"
                         "http://www.w3.org/TR/xhtml1/DTD/xhtml1-
transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" >
<head runat="server">
  <title>Untitled Page</title>
           href="WebTechnologies/SideMenu.css" rel="stylesheet"
type="text/css" />
  <link href="CSS/MenuBlack.css" rel="stylesheet" type="text/css" />
  <link href="CSS/Master.css" rel="stylesheet" type="text/css" />
  <link href="CSS/Master.css" rel="stylesheet" type="text/css" />
  <link href="CSS/Table.css" rel="stylesheet" type="text/css" />
  <asp:ContentPlaceHolder ID="head" runat="server">
  </asp:ContentPlaceHolder>
</head>
<body>
<form id="form1" runat="server">
```

```
<div style="background-color:Silver;">
   <h1 id="Banner" style="border-color:Blue; text-align:center;font-
family:Times
                      Roman;" ><font color="#663300"
               New
library</font></h1>
   <h2 id="Banner" style="border-color:Blue; text-align:center;font-
family:Times New Roman;" ><font color="#663300" >Maulana
Azad Arts science and Commerce Colle.</font></h3>
   <h3 id="Banner" style="border-color:Blue; text-align:center;font-
family: Times New Roman;" >< font color="#663300" > (Department of
Computer Scinece )</font></h2>
 <marquee bgcolor="#e7a0f5" textcolor="Red">Well come in the
world of E-Library. Here you can download hundred of books and your
study to better and etter. </marquee>
 </div>
<div class="aerobuttonmenu black" style="background-color:Maroon;">
<a href="../../Home.aspx" class="aero"><span>Home</span></a>
                           href="../../Programing/Programing.aspx"
<a
class="aero"><span>Programing</span></a>
                href="../../WebTechnologies/WebTechnology.aspx"
class="aero"><span>Web Technonogies</span></a>
                          href="../../NetWorking/Networking.aspx"
<a
class="aero"><span>NetWorking</span></a>
                               href="../../DataBase/DataBase.aspx"
<a
class="aero"><span>Database</span></a>
<a href="../../JoinUs.aspx" class="aero"><span>Joins Us</span></a>
       href="../../ContactUs.aspx" class="aero"><span>Contact
Us</span></a>
</div>
   <br />
<div id="ContentPlaceHolder">
    <asp:ContentPlaceHolder
                                        ID="ContentPlaceHolder1"
runat="server">
    </asp:ContentPlaceHolder>
```

```
</div>
</form>
</body>
</html>
```

Home page code:

```
Page
               Language="C#"
                                 MasterPageFile="~/Master1.Master"
<% @
AutoEventWireup="true"
                                        CodeBehind="Home.aspx.cs"
Inherits="Altheyani_Laibrary.Home" Title="Untitled Page" %>
<asp:Content
                  ID="Content1"
                                       ContentPlaceHolderID="head"
runat="server">
</asp:Content>
<asp:Content
                                                     ID="Content2"
ContentPlaceHolderID="ContentPlaceHolder1" runat="server">
  <link href="CSS/style.css" rel="stylesheet" type="text/css" />
  <script src="js/ie6.js" type="text/javascript"></script>
  <script src="js/jquery.js" type="text/javascript"></script>
  <script src="js/scripts.js" type="text/javascript"></script>
<div id="header"><div class="wrap">
 <div id="slide-holder">
<div id="slide-runner">
  <a href="WebTechnologies/Ajax/Ajax.aspx"><img id="slide-img-1"
src="All_Images/Ajax_logo.jpeg" class="slide" alt="" /></a>
              href="WebTechnologies/ASPDOTNET/Asp.aspx"><img
  <a
                         src="All Images/carrzkiss 06-12-47-Sep-26-
id="slide-img-2"
2010_ASPNETlogo.png" class="slide" alt="" /></a>
              href="NetWorking/Microsoft/MCITP/Mcitp.aspx"><img
  <a
id="slide-img-3"
                                            src="All_Images/220px-
Microsoft_Certified_Professional.png" class="slide" alt=""/></a>
  <a href="Programing/Csharp/CSharp.aspx"><img id="slide-img-4"
src="All_Images/Csharp_logo.jpeg" class="slide" alt="" /></a>
  <a href="WebTechnologies/CSS Language/cssLanguage.aspx"><img
id="slide-img-5" src="All_Images/css_Logo.jpeg" class="slide" alt=""
/></a>
  <a href="WebTechnologies/html/html.aspx"><img id="slide-img-6"
src="All_Images/HML_logo.jpeg" class="slide" alt="" /></a>
                                                    id="slide-img-7"
          href="Programing/Java/java.aspx"><img
src="All Images/Java logo.jpeg" class="slide" alt="" /></a>
          href="Programing/Java/java.aspx"><img
                                                  id="slide-img-8"
src="All_Images/JavaScript_logo1.jpeg" class="slide" alt="" /></a>
```

```
href="Programing/Java/java.aspx"><img
                                                    id="slide-img-9"
src="All_Images/oravcle_logo.jpeg" class="slide" alt="" /></a>
        href="Programing/Java/java.aspx"><img
                                                   id="slide-img-10"
src="All_Images/php_logo.jpg" class="slide" alt="" /></a>
        href="Programing/Java/java.aspx"><img
                                                   id="slide-img-11"
src="All_Images/sql_logo.jpeg" class="slide" alt="" /></a>
  <div id="slide-controls">
                                          class="text"><strong>post:
                id="slide-client"
   <p
</strong><span></span>
   </div>
</div>
     <!--content featured gallery here -->
 </div>
 <script type="text/javascript">
                              slider={};slider.data=[{"id":"slide-img-
  if(!window.slider)
                       var
1","client":"Ajax programing",
  "desc": "Ajax is clint side programing, to used perform clint
operation"},
  {"id": "slide-img-2", "client": "Asp.Net", "desc": "Asp.Net is an web
technology to used build web base application."},
  {"id":"slide-img-3","client":"MCITP","desc":"Microsoft certified IT
Professional."},
  {"id":"slide-img-4","client":"C#.Net","desc":"C sharp .net."},
  {"id":"slide-img-5","client":"CSS","desc":"Cascading Style Sheat."},
  {"id":"slide-img-6","client":"HTML","desc":"Hyper Text Markup
Language."},
  {"id": "slide-img-7", "client": "Java", "desc": "Java is an Object Oriented
Programing language."},
  {"id":"slide-img-8","client":"Java Script","desc":"Java Script is Client
side scripting Language.."},
  {"id": "slide-img-9", "client": "Oracle", "desc": "Oracle is an example of
RDBMS data base."},
```

```
{"id": "slide-img-10", "client": "PHP", "desc": "PHP is is used to build
web sites."},
 {"id": "slide-img-11", "client": "Sql Server", "desc": "Sql Server is an
example of RDBMS data base."}];
 </script>
</div>
-- <div id="Table" class="parent-element">
        style="font-family:Times New Roman;color:Blue;">PDF
Books</h3>
</div>
  <div class="floating-element-Center">
   <strong>Here for your better study we are provide to you a lot
of books of PHP you can diretly
     download a books from this site.</strong>
 </div>
 <div id="PdfContent" class="floating-element-Center">
     Book Name
         Author Name
         Version 
         Download
       PHP and MySql
         Bible
         1st Edition
         Button
                       ID="btnDownload" runat="server"
Text="Download"
             onclick="btnDownload Click" /> 
       Php Arabi
          Bible
          II nd Edition
```

Programming page cod:

Course of c#

```
<% @
       Page
               Language="C#" MasterPageFile="~/Master1.Master"
AutoEventWireup="true"
                                      CodeBehind="CSharp.aspx.cs"
Inherits="Altheyani_Laibrary.Programing.Csharp.CSharp"
Title="Untitled Page" %>
                 ID="Content1"
                                      ContentPlaceHolderID="head"
<asp:Content
runat="server">
</asp:Content>
<asp:Content
                                                     ID="Content2"
ContentPlaceHolderID="ContentPlaceHolder1" runat="server">
  <div class="floating-element-right">
  <asp:Button ID="btnSignOut" runat="server" Text="Sign Out"
    onclick="btnSignOut Click"/>
</div>
  <div class="parent-element">
                  style="font-family:Palatino
                                                     Linotype; font-
    <h1
size:large;color:Blue;" >C#.NET</h1>
       <div class="floating-element">
                             src="../../PageImage/Csharp_logo1.jpeg"
           <img
                 width="175px" style="border-style:inset; border-
height="175px"
color:Gray" />
       </div>
  <div class="floating-element-Center">
    <h3
                       style="font-family:Times
                                                               New
Roman; color: Blue; ">Introdution</h3>
```

C# is a multi-paradigm programming language encompassing imperative, declarative, functional, generic, object-oriented (class-based), and component-oriented programming disciplines. It was developed by Microsoft within the .NET initiative and later approved as a standard by Ecma (ECMA-334) and ISO (ISO/IEC 23270). C# is one of the programming languages designed for the Common Language Infrastructure..

<h3 style="font-family:Times New Roman;color:Blue;">History</h3>

During the development of the .NET Framework, the class libraries were originally written using a managed code compiler system called Simple Managed C (SMC). In January 1999, Anders Hejlsberg formed a team to build a new language at the time called Cool, which stood for "C-like Object Oriented Language". Microsoft had considered keeping the name "Cool" as the final name of the language, but chose not to do so for trademark reasons. By the time the .NET project was publicly announced at the July 2000 Professional Developers Conference, the language had been renamed C#, and the class libraries and ASP.NET runtime had been ported to C#.

C#'s principal designer and lead architect at Microsoft is Anders Hejlsberg, who was previously involved with the design of Turbo Pascal, Embarcadero Delphi (formerly CodeGear Delphi and Borland Delphi), and Visual J++. In interviews and technical papers he has stated that flaws[citation needed] in most major programming languages (e.g. C++, Java, Delphi, and Smalltalk) drove the fundamentals of the Common Language Runtime (CLR), which, in turn, drove the design of the C# language itself.

James Gosling, who created the Java programming language in 1994, and Bill Joy, a co-founder of Sun Microsystems, the originator of Java, called C# an "imitation" of Java; Gosling further claimed that "[C# is] sort of Java with reliability, productivity and security deleted." Klaus Kreft and Angelika Langer (authors of a C++ streams book) stated in a blog post that "Java and C# are almost identical programming languages. Boring repetition that lacks

innovation," "Hardly anybody will claim that Java or C# are revolutionary programming languages that changed the way we write programs," and "C# borrowed a lot from Java - and vice versa. Now that C# supports boxing and unboxing, we'll have a very similar feature in Java." Anders Hejlsberg has argued that C# is "not a Java clone" and is "much closer to C++" in its design.

```
</div>
 </div>
 <div id="Table" class="parent-element">
   <h3 style="font-family:Times New Roman;color:Blue;">PDF
Books</h3>
</div>
<div class="floating-element-Center">
   <strong>Here for your better study we are provide to you a lot
of books of PHP you can diretly
     download a books from this site.</strong>
  </div>
  <div id="PdfContent" class="floating-element-Center">
     Book Name
         Author Name
         Version 
         Download
       C# 2008 and the NET 3.5 Platform Fourth
Edition.pdf
         Wrox Publication
         IVst Edition
                         ID="btnDownload" runat="server"
         Sutton
Text="Download"
             onclick="btnDownload Click" />
```

```
C#.pdf
           Wrox Publication
           II nd Edition
           Button
                               ID="Button1" runat="server"
Text="Download"
               onclick="Button1_Click" /> 
        </div>
</asp:Content>
Code in c#
using System;
using System.Collections;
using System.Configuration;
using System.Data;
using System.Ling;
using System. Web;
using System. Web. Security;
using System. Web. UI;
using System. Web. UI. WebControls;
using System.Web.UI.WebControls.WebParts;
using System. Web. UI. Html Controls;
using System.Xml.Ling;
using System.IO;
namespace Altheyani_Laibrary.Programing.Csharp
  public partial class CSharp: System. Web. UI. Page
    string FilePath, fname, name, ext, type;
```

```
bool forcedownlode = true;
    string myfilepath;
    protected void Page_Load(object sender, EventArgs e)
     }
    protected void btnDownload_Click(object sender, EventArgs e)
       myfilepath = "pdf\\[book\] [en] Pro C# 2008 and the NET 3.5
Platform Fourth Edition.pdf";
       DownloadFile(myfilepath);
    public void DownloadFile(string Downloadpath)
       Response.ContentType = "Application/Pdf";
       FilePath = MapPath(Downloadpath);
       fname = Path.GetFullPath(FilePath);
       name = Path.GetFileName(FilePath);
       ext = Path.GetExtension(FilePath);
       type = "";
       if (ext != null)
         switch (ext.ToLower())
            case ".txt":
              type = "Application/txt";
              break;
            case ".pdf":
              type = "Application/Pdf";
              break:
            case ".wmv":
              type = "Application/Wmv";
              break:
            case ".rar":
```

```
type = "Application/Rar";
              break;
         if (forcedownlode)
           Response. AppendHeader ("Content-disposition",
"attachment;filename=" + name);
         if (type != "")
           Response.ContentType = type;
           Response.WriteFile(FilePath);
           Response.End();
           Response.End();
    protected void Button1_Click(object sender, EventArgs e)
       myfilepath = "pdf\\C#.pdf";
       DownloadFile(myfilepath);
    }
    protected void btnSignOut_Click(object sender, EventArgs e)
       FormsAuthentication.SignOut();
```

Java course

Asp.net code

```
<%<mark>@</mark>
        Page
               Language="C#" MasterPageFile="~/Master1.Master"
AutoEventWireup="true"
                                          CodeBehind="java.aspx.cs"
Inherits="Altheyani_Laibrary.Programing.Java.java"
                                                      Title="Untitled
Page" %>
                  ID="Content1"
                                       ContentPlaceHolderID="head"
<asp:Content
runat="server">
</asp:Content>
<asp:Content
                                                      ID="Content2"
ContentPlaceHolderID="ContentPlaceHolder1" runat="server">
  <div class="floating-element-right">
  <asp:Button ID="btnSignOut" runat="server" Text="Sign Out"
    onclick="btnSignOut_Click" />
</div>
<div class="parent-element">
                  style="font-family:Palatino
    <h1
                                                      Linotype; font-
size:large;color:Blue;" >Java</h1>
       <div class="floating-element">
```

Java is a programming language originally developed by James Gosling at Sun Microsystems (which is now a subsidiary of Oracle Corporation) and released in 1995 as a core component of Sun Microsystems' Java platform. The language derives much of its syntax from C and C++ but has a simpler object model and fewer low-level facilities. Java applications are typically compiled to bytecode (class file) that can run on any Java Virtual Machine (JVM) regardless of computer architecture. Java is a general-purpose, concurrent, class-based, object-oriented language that is specifically designed to have as few implementation dependencies as possible. It is intended to let application developers "write once, run anywhere". Java is currently one of the most popular programming languages in use, and is widely used from application software to web applications

James Gosling, Mike Sheridan, and Patrick Naughton initiated the Java language project in June 1991. Java was originally designed for interactive television, but it was too advanced for the digital cable television industry at the time. The language was initially called Oak after an oak tree that stood outside Gosling's office; it went by the name Green later, and was later renamed Java, from a list of random words. Gosling aimed to implement a virtual machine and a language that had a familiar C/C++ style of notation.

Sun Microsystems released the first public implementation as Java 1.0 in 1995. It promised "Write Once, Run Anywhere" (WORA), providing no-cost run-times on popular platforms. Fairly secure and featuring

configurable security, it allowed network- and file-access restrictions. Major web browsers soon incorporated the ability to run Java applets within web pages, and Java quickly became popular. With the advent of Java 2 (released initially as J2SE 1.2 in December 1998–1999), new versions had multiple configurations built for different types of platforms. For example, J2EE targeted enterprise applications and the greatly stripped-down version J2ME for mobile applications (Mobile Java). J2SE designated the Standard Edition. In 2006, for marketing purposes, Sun renamed new J2 versions as Java EE, Java ME, and Java SE, respectively.

In 1997, Sun Microsystems approached the ISO/IEC JTC1 standards body and later the Ecma International to formalize Java, but it soon withdrew from the process. Java remains a de facto standard, controlled through the Java Community Process. At one time, Sun made most of its Java implementations available without charge, despite their proprietary software status. Sun generated revenue from Java through the selling of licenses for specialized products such as the Java Enterprise System. Sun distinguishes between its Software Development Kit (SDK) and Runtime Environment (JRE) (a subset of the SDK); the primary distinction involves the JRE's lack of the compiler, utility programs, and header files.

On November 13, 2006, Sun released much of Java as open source software under the terms of the GNU General Public License (GPL). On May 8, 2007, Sun finished the process, making all of Java's core code available under free software/open-source distribution terms, aside from a small portion of code to which Sun did not hold the copyright

```
</div>
</div>
<div id="Table" class="parent-element">
<h3 style="font-family:Times New Roman;color:Blue;">PDF
Books</h3>
</div>
```

```
<div class="floating-element-Center">
   <strong>Here for your better study we are provide to you a lot
of books of Java you can diretly
     download a books from this site.</strong>
 </div>
 <div id="PdfContent" class="floating-element-Center">
     Book Name
        Author Name
        Version 
        Download
       01 Core Java Volume I - Fundamentals 5th ed 
        Prentice Hall 
        1st Edition
        <asp:Button ID="btnDownload" runat="server"
Text="Download"
            onclick="btnDownload Click"/> 
       02 Core Java Volume II - Advanced features
Java.pdf
         Prentice Hall
         II nd Edition
                         ID="Button1" runat="server"
         Sutton
Text="Download"
            onclick="Button1 Click" /> 
       02 Core Java Volume II - Advanced features
Java.pdf
```

```
Prentice Hall
        II nd Edition
        <asp:Button ID="Button2" runat="server"
Text="Download"
           onclick="Button2 Click" /> 
      02 Core Java Volume II - Advanced features
Java.pdf
        Prentice Hall
        II nd Edition
        <asp:Button ID="Button3" runat="server"
Text="Download"
           onclick="Button3 Click" /> 
      02 Core Java Volume II - Advanced features
Java.pdf
        Prentice Hall
        II nd Edition
                        ID="Button4" runat="server"
        Sutton
Text="Download"
           onclick="Button4 Click" /> 
      02 Core Java Volume II - Advanced features
Java.pdf
        Prentice Hall
        II nd Edition
        <asp:Button ID="Button5" runat="server"
Text="Download"
           onclick="Button5 Click" />
```

```
02 Core Java Volume II - Advanced features
Java.pdf
        Prentice Hall
        II nd Edition
        <asp:Button ID="Button6" runat="server"
Text="Download"
            onclick="Button6 Click" /> 
      02 Core Java Volume II - Advanced features
Java.pdf
        Prentice Hall
        II nd Edition
        <asp:Button ID="Button7" runat="server"
Text="Download"
            onclick="Button7 Click" /> 
      02 Core Java Volume II - Advanced features
Java.pdf
        Prentice Hall
        II nd Edition
        <asp:Button ID="Button8" runat="server"
Text="Download"
            onclick="Button8 Click" /> 
      </div>
</asp:Content>
Java course
C#code:
```

```
using System;
using System.Collections;
using System.Configuration;
using System.Data;
using System.Linq;
using System. Web;
using System. Web. Security;
using System. Web. UI;
using System. Web. UI. WebControls;
using System. Web. UI. WebControls. WebParts;
using System. Web. UI. Html Controls;
using System.Xml.Ling;
using System.IO;
namespace Altheyani_Laibrary.Programing.Java
  public partial class java: System. Web. UI. Page
    string FilePath, fname, name, ext, type;
    bool forcedownlode = true;
    string myfilepath;
    protected void Page_Load(object sender, EventArgs e)
     }
    protected void btnDownload_Click(object sender, EventArgs e)
       myfilepath = "pdf\\01 Core Java Volume I - Fundamentals 5th ed
Prentice Hall Java.pdf";
       DownloadFile(myfilepath);
    public void DownloadFile(string Downloadpath)
       Response.ContentType = "Application/Rar";
```

```
FilePath = MapPath(Downloadpath);
       fname = Path.GetFullPath(FilePath);
       name = Path.GetFileName(FilePath);
       ext = Path.GetExtension(FilePath);
       type = "";
       if (ext != null)
         switch (ext.ToLower())
            case ".txt":
              type = "Application/txt";
              break;
            case ".pdf":
              type = "Application/Pdf";
              break;
            case ".wmv":
              type = "Application/Wmv";
              break;
            case ".rar":
              type = "Application/Rar";
              break;
         if (forcedownlode)
            Response. AppendHeader ("Content-disposition",
"attachment;filename=" + name);
         if (type != "")
            Response.ContentType = type;
            Response.WriteFile(FilePath);
            Response.End();
            Response.End();
```

```
protected void Button1_Click(object sender, EventArgs e)
       myfilepath = "pdf\\02 Core Java Volume II - Advanced features
Prentice Hall Java.pdf";
      DownloadFile(myfilepath);
    protected void Button2_Click(object sender, EventArgs e)
       myfilepath = "pdf\\1000_Java_Tips_low.pdf";
      DownloadFile(myfilepath);
    }
    protected void Button3_Click(object sender, EventArgs e)
                            "pdf\\Actual Tests SCJP
       myfilepath
                                                         1[1].5 310-
055_dumps_updated_July_9_2007.pdf";
       DownloadFile(myfilepath);
    }
    protected void Button4 Click(object sender, EventArgs e)
       myfilepath = "pdf\\Addison Wesley -- LDAP programming with
Java.pdf";
       DownloadFile(myfilepath);
    protected void Button5_Click(object sender, EventArgs e)
       myfilepath = "pdf\\Addison Wesley -- LDAP programming with
Java.pdf";
```

```
DownloadFile(myfilepath);
protected void Button6_Click(object sender, EventArgs e)
  myfilepath = "pdf\\Building Web Services.pdf";
  DownloadFile(myfilepath);
}
protected void Button7_Click(object sender, EventArgs e)
  myfilepath = "pdf\\Complete Reference - J2EE.pdf";
  DownloadFile(myfilepath);
protected void Button8_Click(object sender, EventArgs e)
  myfilepath = "pdf\\Complete Reference - J2ME.pdf";
  DownloadFile(myfilepath);
}
protected void btnSignOut_Click(object sender, EventArgs e)
  FormsAuthentication.SignOut();
```

1:-ajax asp.net code:

```
<mark><%</mark> @
             Language="C#" MasterPageFile="~/Master1.Master"
        Page
AutoEventWireup="true"
                                         CodeBehind="Ajax.aspx.cs"
Inherits="Altheyani_Laibrary.WebTechnologies.Ajax.Ajax"
Title="Untitled Page" %>
<asp:Content
                  ID="Content1"
                                       ContentPlaceHolderID="head"
runat="server">
</asp:Content>
<asp:Content
                                                      ID="Content2"
ContentPlaceHolderID="ContentPlaceHolder1" runat="server">
  <div class="floating-element-right">
  <asp:Button ID="btnSignOut" runat="server" Text="Sign Out"
    onclick="btnSignOut_Click" />
</div>
  <div class="parent-element">
                  style="font-family:Palatino
                                                       Linotype; font-
size:large;color:Blue;">Ajax</h1>
       <div class="floating-element">
         <img src="../../PageImage/Ajax_logo.jpeg" height="175px"
width="175px" style="border-style:inset; border-color:Gray" />
       </div>
  <div class="floating-element-Center">
                        style="font-family:Times
                                                                New
Roman; color: Blue; ">Introdution</h3>
```

Ajax (pronounced /Ajax/; shorthand for asynchronous JavaScript and XML) is a group of interrelated web development methods used on the client-side to create interactive web applications. With Ajax, web applications can retrieve data from the server asynchronously in the background without interfering with the display and behavior of the existing page. Data is usually retrieved using the XMLHttpRequest object. Despite the name, the use of XML is not needed, and the requests need not be asynchronous

New

Roman; color: Blue; ">History</h3>

In the 1990s, most web sites were based on complete HTML pages; each user action required that the page be re-loaded from the server (or a new page loaded). This process is inefficient, as reflected by the user experience: all page content disappears then reappears, etc. Each time a page is reloaded due to a partial change, all of the content must be re-sent instead of only the changed information. This can place additional load on the server and use excessive bandwidth.

Asynchronous loading of content first became practical when Java applets were introduced in the first version of the Java language in 1995. These allow compiled client-side code to load data asynchronously from the web server after a web page is loaded. In 1996, Internet Explorer introduced the iframe element to HTML, which also enabled asynchronous loading. In 1999, Microsoft created the XMLHTTP ActiveX control in Internet Explorer 5, which was later adopted by Mozilla, Safari, Opera and other browsers as the XMLHttpRequest JavaScript object.Microsoft has adopted the native XMLHttpRequest model as of Internet Explorer 7, though the ActiveX version is still supported. The utility of background HTTP requests to the server and asynchronous web technologies remained fairly obscure until it started appearing in full scale online applications such as Outlook Web Access (2000)and Oddpost (2002), and later, Google made a wide deployment of Ajax with Gmail (2004) and Google Maps (2005).

The term Ajax was coined on February 18, 2005 by Jesse James Garrett in an article entitled Ajax: A New Approach to Web Applications.

On April 5, 2006 the World Wide Web Consortium (W3C) released the first draft specification for the XMLHttpRequest object in an attempt to create an official web standard.

```
</div>
</div>
<div id="Table" class="parent-element">
```

```
style="font-family:Times New Roman;color:Blue;">PDF
Books</h3>
</div>
 <div class="floating-element-Center">
   <strong>Here for your better study we are provide to you a lot
of books of Ajax you can diretly
     download a books from this site.</strong>
 </div>
  <div id="PdfContent" class="floating-element-Center">
     Book Name
        Author Name
        Version 
        Download
       ajax-atlas
        NIT Institute Hyd
        Slids show
        <asp:Button ID="btnDownload" runat="server"
Text="Download"
            onclick="btnDownload Click" /> 
       ajax-debug-blog.pdf
         Nagaraju Bede
         II nd Edition
         Sutton
                         ID="Button1" runat="server"
Text="Download"
            onclick="Button1 Click" />
```

```
ajax-toolkit-blog.pdf
        Nagaraju Bede
        Ist Edition
        Button
                       ID="Button2"
                                     runat="server"
Text="Download"
           onclick="Button2_Click" /> 
      ajax-v4-day
        Nagaraju Bede
        II nd Edition
        Button
                       ID="Button3"
                                     runat="server"
Text="Download"
           onclick="Button3_Click" /> 
      ajaxatlas
        Nagaraju Bede
        Ist edition
        Button
                       ID="Button4"
                                  runat="server"
Text="Download"
           onclick="Button4 Click" /> 
      asp-net-ajax-sessions-anica-2011
        Nagaraju Bede
        Ist edition
                       ID="Button5"
                                   runat="server"
        Button
Text="Download"
           onclick="Button5 Click" /> 
      aspnet-ajax
        Nagaraju Bede
        Ist edition
```

```
Sutton
                                 ID="Button6" runat="server"
Text="Download"
                onclick="Button6 Click" /> 
         </div>
</asp:Content>
Ajax c# code:
using System;
using System.Collections;
using System.Configuration;
using System.Data;
using System.Ling;
using System. Web;
using System. Web. Security;
using System.Web.UI;
using System. Web. UI. WebControls;
using System.Web.UI.WebControls.WebParts;
using System. Web. UI. Html Controls;
using System.Xml.Ling;
using System.IO;
namespace Altheyani_Laibrary.WebTechnologies.Ajax
  public partial class Ajax : System. Web. UI. Page
    string FilePath, fname, name, ext, type;
    bool forcedownlode = true;
    string myfilepath;
    protected void Page_Load(object sender, EventArgs e)
```

```
{
protected void btnDownload_Click(object sender, EventArgs e)
  myfilepath = "pdf\\ajax-atlas.pdf";
  DownloadFile(myfilepath);
public void DownloadFile(string Downloadpath)
  Response.ContentType = "Application/Rar";
  FilePath = MapPath(Downloadpath);
  fname = Path.GetFullPath(FilePath);
  name = Path.GetFileName(FilePath);
  ext = Path.GetExtension(FilePath);
  type = "";
  if (ext != null)
    switch (ext.ToLower())
       case ".txt":
         type = "Application/txt";
         break;
       case ".pdf":
         type = "Application/Pdf";
         break;
       case ".wmv":
         type = "Application/Wmv";
         break;
       case ".rar":
         type = "Application/Rar";
         break;
```

```
if (forcedownlode)
            Response. AppendHeader ("Content-disposition",
"attachment;filename=" + name);
         if (type != "")
            Response.ContentType = type;
            Response.WriteFile(FilePath);
            Response.End();
            Response.End();
    protected void Button1_Click(object sender, EventArgs e)
       myfilepath = "pdf\\ajax-debug-blog.pdf";
       DownloadFile(myfilepath);
    protected void Button2_Click(object sender, EventArgs e)
       myfilepath = "pdf\\ajax-toolkit-blog.pdf";
       DownloadFile(myfilepath);
    protected void Button3_Click(object sender, EventArgs e)
       myfilepath = "pdf\\ajax-v4-day-1-blog.pdf";
       DownloadFile(myfilepath);
     }
    protected void Button4_Click(object sender, EventArgs e)
```

```
myfilepath = "pdf\\ajaxatlas-v4-day2.pdf";
  DownloadFile(myfilepath);
protected void Button5_Click(object sender, EventArgs e)
  myfilepath = "pdf\asp-net-ajax-sessions-anica-2011.pdf";
  DownloadFile(myfilepath);
protected void Button6_Click(object sender, EventArgs e)
  myfilepath = "pdf\\aspnet-ajax-v1-blog.pdf";
  DownloadFile(myfilepath);
}
protected void btnSignOut_Click(object sender, EventArgs e)
  FormsAuthentication.SignOut();
```

Asp.ent books in asp.net:

```
<%@ Page Language="C#" MasterPageFile="~/Master1.Master"
AutoEventWireup="true" CodeBehind="Asp.aspx.cs"</pre>
```

```
Inherits="Altheyani_Laibrary.WebTechnologies.ASPDOTNET.Asp"
Title="Untitled Page" %>
                  ID="Content1"
<asp:Content
                                      ContentPlaceHolderID="head"
runat="server">
</asp:Content>
<asp:Content
                                                     ID="Content2"
ContentPlaceHolderID="ContentPlaceHolder1" runat="server">
  <div class="floating-element-right">
  <asp:Button ID="btnSignOut" runat="server" Text="Sign Out"
    onclick="btnSignOut Click"/>
</div>
  <div class="parent-element">
                  style="font-family:Palatino
                                                     Linotype; font-
    <h1
size:large;color:Blue">Microsoft Asp.net</h1>
      <div class="floating-element">
         <img src="../../PageImage/LogoAspNet.png" height="175px"</pre>
width="175px" />
      </div>
    <div class="floating-element-Center">
                        style="font-family:Times
      <h3
                                                              New
Roman; color: Blue; ">Introdution</h3>
         ASP.NET is a web application framework developed and
marketed by Microsoft to allow programmers to build dynamic web
sites, web applications and web services. It was first released in January
2002 with version 1.0 of the .NET Framework, and is the successor to
Microsoft's Active Server Pages (ASP) technology. ASP.NET is built on
the Common Language Runtime (CLR), allowing programmers to write
ASP.NET code using any supported .NET language. The ASP.NET
SOAP extension framework allows ASP.NET components to process
style="font-family:Times
                                                              New
           <h3
Roman; color: Blue; ">History </h3>
```

After the release of Internet Information Services 4.0 in 1997, Microsoft began researching possibilities for a new web application model that would solve common complaints about ASP, especially with regard to separation of presentation and content and being able to write "clean" code. Mark Anders, a manager on the IIS team, and Scott Guthrie, who had joined Microsoft in 1997 after graduating from Duke University, were tasked with determining what that model would look like. The initial design was developed over the course of two months by Anders and Guthrie, and Guthrie coded the initial prototypes during the Christmas holidays in 1997.

The initial prototype was called "XSP"; Guthrie explained in a 2007 interview that, "People would always ask what the X stood for. At the time it really didn't stand for anything. XML started with that; XSLT started with that. Everything cool seemed to start with an X, so that's what we originally named it." The initial prototype of XSP was done using Java, but it was soon decided to build the new platform on top of the Common Language Runtime (CLR), as it offered an object-oriented programming environment, garbage collection and other features that were seen as desirable features that Microsoft's Component Object Model platform didn't support. Guthrie described this decision as a "huge risk", as the success of their new web development platform would be tied to the success of the CLR, which, like XSP, was still in the early stages of development, so much so that the XSP team was the first team at Microsoft to target the CLR.

With the move to the Common Language Runtime, XSP was re-implemented in C# (known internally as "Project Cool" but kept secret from the public), and the name changed to ASP+, as by this point the new platform was seen as being the successor to Active Server Pages, and the intention was to provide an easy migration path for ASP developers.

Mark Anders first demonstrated ASP+ at the ASP Connections conference in Phoenix, Arizona on May 2, 2000.

Demonstrations to the wide public and initial beta release of ASP+ (and the rest of the .NET Framework) came at the 2000 Professional Developers Conference on July 11, 2000 in Orlando, Florida. During Bill Gates' keynote presentation, Fujitsu demonstrated ASP+ being used in conjunction with COBOL, and support for a variety of other languages was announced, including Microsoft's new Visual Basic .NET and C# languages, as well as Python and Perl support by way of interoperability tools created by ActiveState.

```
</div>
 </div>
<div id="Table" class="parent-element">
        style="font-family:Times New Roman;color:Blue;">PDF
Books</h3>
</div>
 <div class="floating-element-Center">
   <strong>Here for your better study we are provide to you a lot
of books of asp .net you can diretly
     download a books from this site.</strong>
 </div>
   <div id="PdfContent" class="floating-element-Center">
     Book Name
         Author Name
         Version 
         Download
       visual studio
         Bible
         1st Edition
         Sutton
                         ID="btnDownload" runat="server"
Text="Download"
            onclick="btnDownload Click" />
```

```
ASP NET Code Techniques
         Bible
         II nd Edition
         Sutton
                          ID="Button1" runat="server"
Text="Download"
             onclick="Button1 Click" /> 
       ASP.Net Database Programming 
         Wrox
         II nd Edition
         Sutton
                          ID="Button2" runat="server"
Text="Download"
            onclick="Button2_Click" /> 
       asp.net web developers guide
         Wrox
          II nd Edition
         <asp:Button ID="Button3" runat="server"
Text="Download"
            onclick="Button3 Click"/> 
       </div>
<div class="parent-element">
       style="font-family:Times New Roman;color:Blue;">PDF
Books</h3>
</div>
<div class="floating-element-Center">
 <strong>Like this some vedio file also are provider for you.Just
download it and make your study hard.</strong>
</div>
<div class="floating-element-Center">
```

```
Book Name
    Author Name
    Version 
    Download
   visual studio
     Bible
     1st Edition
     Button
                   ID="Button4"
                              runat="server"
Text="Download" /> 
   ASP NET Code Techniques
     Bible
     II nd Edition
                   ID="Button5" runat="server"
     Sutton
Text="Download" /> 
   ASP.Net Database Programming 
      Wrox
      II nd Edition
      <asp:Button
                 ID="Button6"
                               runat="server"
Text="Download" /> 
    asp.net web developers guide
     Wrox
      II nd Edition
                ID="Button7"
      Sutton
                               runat="server"
Text="Download" />
```

```
</div>
</asp:Content>
```

```
Asp.net code in c#:
using System;
using System.Collections;
using System.Configuration;
using System.Data;
using System.Ling;
using System. Web;
using System. Web. Security;
using System. Web. UI;
using System.Web.UI.WebControls;
using System. Web. UI. WebControls. WebParts;
using System. Web. UI. Html Controls;
using System.Xml.Linq;
using System.IO;
namespace Altheyani_Laibrary.WebTechnologies.ASPDOTNET
  public partial class Asp: System.Web.UI.Page
    string FilePath, fname, name, ext, type;
    bool forcedownlode = true;
    string myfilepath;
    protected void Page_Load(object sender, EventArgs e)
```

```
protected void btnDownload_Click(object sender, EventArgs e)
  myfilepath = "pdf\\(ebook) - visual studio - asp net bible.pdf";
  DownloadFile(myfilepath);
public void DownloadFile(string Downloadpath)
  Response.ContentType = "Application/Rar";
  FilePath = MapPath(Downloadpath);
  fname = Path.GetFullPath(FilePath);
  name = Path.GetFileName(FilePath);
  ext = Path.GetExtension(FilePath);
  type = "";
  if (ext != null)
    switch (ext.ToLower())
       case ".txt":
         type = "Application/txt";
         break;
       case ".pdf":
         type = "Application/Pdf";
         break;
       case ".wmv":
         type = "Application/Wmv";
         break;
       case ".rar":
         type = "Application/Rar";
         break;
    if (forcedownlode)
```

```
Response. AppendHeader ("Content-disposition",
"attachment; filename=" + name);
         if (type != "")
           Response.ContentType = type;
           Response.WriteFile(FilePath);
           Response.End();
           Response.End();
     }
    protected void Button1_Click(object sender, EventArgs e)
       myfilepath = "pdf\\ASP NET Code Techniques.pdf";
       DownloadFile(myfilepath);
    protected void Button2_Click(object sender, EventArgs e)
      myfilepath = "pdf\\ASP[1].Net Database Programming .pdf";
      DownloadFile(myfilepath);
    }
    protected void Button3_Click(object sender, EventArgs e)
      myfilepath = "pdf\\asp[1][1].net web developers guide.pdf";
      DownloadFile(myfilepath);
    }
    protected void btnSignOut Click(object sender, EventArgs e)
       FormsAuthentication.SignOut();
```

```
}
Ccs language code in asp.net:
              Language="C#"
                                 MasterPageFile="~/Master1.Master"
<% @
        Page
AutoEventWireup="true"
                                 CodeBehind="cssLanguage.aspx.cs"
Inherits="Altheyani_Laibrary.WebTechnologies.CSS_Language.cssLan
guage" Title="Untitled Page" %>
                                      ContentPlaceHolderID="head"
                  ID="Content1"
<asp:Content
runat="server">
</asp:Content>
<asp:Content
                                                     ID="Content2"
ContentPlaceHolderID="ContentPlaceHolder1" runat="server">
  <div class="floating-element-right">
  <asp:Button ID="btnSignOut" runat="server" Text="Sign Out"
    onclick="btnSignOut_Click" />
</div>
 <div class="parent-element">
                  style="font-family:Palatino
                                                      Linotype; font-
    <h1
size:large;color:Blue;" >CSS</h1>
       <div class="floating-element">
         <img src="../../PageImage/css_Logo.jpeg"
                                                    height="175px"
width="175px" style="border-style:inset; border-color:Gray"/>
       </div>
  <div class="floating-element-Center">
    <h3
                        style="font-family:Times
                                                               New
Roman; color: Blue; ">Introdution</h3>
```

CSS specifies a priority scheme to determine which style rules apply if more than one rule matches against a particular element. In this so-called cascade, priorities or weights are calculated and assigned to rules, so that the results are predictable.

Roman; color: Blue; ">History</h3>

Style sheets have existed in one form or another since the beginnings of SGML in the 1970s. Cascading Style Sheets were developed as a means for creating a consistent approach to providing style information for web documents.

As HTML grew, it came to encompass a wider variety of stylistic capabilities to meet the demands of web developers. This evolution gave the designer more control over site appearance but at the cost of HTML becoming more complex to write and maintain. Variations in web browser implementations i.e. ViolaWWW and WorldWideWeb made consistent site appearance difficult, and users had less control over how web content was displayed. Robert Cailliau wanted to separate the structure from the presentation. The ideal way would be to give the user different options and transferring three different kinds of style sheets: one for printing, one for the presentation on the screen and one for the editor feature.

To improve web presentation capabilities, nine different style sheet languages were proposed to the World Wide Web Consortium's (W3C) www-style mailing list. Of the nine proposals, two were chosen as the foundation for what became CSS: Cascading HTML Style Sheets (CHSS) and Stream-based Style Sheet Proposal (SSP). CHSS, a language that has some resemblance to today's CSS, was proposed by Håkon Wium Lie in October 1994. Bert Bos was working on a browser called Argo, which used its own style sheet language called SSP. Lie and Yves Lafon joined Dave Raggett to expand the Arena browser for supporting CSS as a testbed application for the W3C. Lie and Bos worked together to develop the CSS standard (the 'H' was removed from the name because these style sheets could also be applied to other markup languages besides HTML)

```
</div>
</div>
<div id="Table" class="parent-element">
```

```
style="font-family:Times New Roman;color:Blue;">PDF
Books</h3>
</div>
 <div class="floating-element-Center">
   <strong>Here for your better study we are provide to you a lot
of books of CSS you can diretly
     download a books from this site.</strong>
 </div>
 <div id="PdfContent" class="floating-element-Center">
     Book Name
        Author Name
        Version 
        Download
       Cascading Style Sheets
        Sami Al rabi
        II nd Edition
                       ID="btnDownload" runat="server"
        Button
Text="Download"
           onclick="btnDownload Click" /> 
       Html Basic
         Sami Al rabi
         Ist Edition
         Button
                         ID="Button1" runat="server"
Text="Download"
            onclick="Button1_Click" /> 
       Html Basic Arabi
         Sami Al rabi
```

```
Ist Edition
           Button
                                ID="Button2" runat="server"
Text="Download"
                onclick="Button2 Click" /> 
         </div>
</asp:Content>
Ccs code in c#
using System;
using System.Collections;
using System.Configuration;
using System.Data;
using System.Ling;
using System. Web;
using System. Web. Security;
using System.Web.UI;
using System.Web.UI.WebControls;
using System. Web. UI. WebControls. WebParts;
using System. Web. UI. Html Controls;
using System.Xml.Linq;
using System.IO;
namespace Altheyani_Laibrary.WebTechnologies.CSS_Language
  public partial class cssLanguage: System.Web.UI.Page
    string FilePath, fname, name, ext, type;
```

```
bool forcedownlode = true;
string myfilepath;
protected void Page_Load(object sender, EventArgs e)
}
protected void btnDownload_Click(object sender, EventArgs e)
  myfilepath = "pdf\\Cascading Style Sheets.pdf";
  DownloadFile(myfilepath);
public void DownloadFile(string Downloadpath)
  Response.ContentType = "Application/Rar";
  FilePath = MapPath(Downloadpath);
  fname = Path.GetFullPath(FilePath);
  name = Path.GetFileName(FilePath);
  ext = Path.GetExtension(FilePath);
  type = "";
  if (ext != null)
    switch (ext.ToLower())
       case ".txt":
         type = "Application/txt";
         break;
       case ".pdf":
         type = "Application/Pdf";
         break;
       case ".wmv":
         type = "Application/Wmv";
         break;
       case ".rar":
         type = "Application/Rar";
```

```
break;
         if (forcedownlode)
           Response. AppendHeader ("Content-disposition",
"attachment;filename=" + name);
         if (type != "")
           Response.ContentType = type;
           Response.WriteFile(FilePath);
           Response.End();
           Response.End();
    protected void Button1_Click(object sender, EventArgs e)
      myfilepath = "pdf\\HTML ال ـ في متقدمة دورة.pdf";
      DownloadFile(myfilepath);
    }
    protected void Button2_Click(object sender, EventArgs e)
      myfilepath = "pdf\\HTML.pdf";
      DownloadFile(myfilepath);
    protected void btnSignOut_Click(object sender, EventArgs e)
       FormsAuthentication.SignOut();
```

```
}
```

Html lanuage code in asp.net

```
<<mark>%</mark> @
        Page Language="C#" MasterPageFile="~/Master1.Master"
AutoEventWireup="true"
                                          CodeBehind="html.aspx.cs"
Inherits="Altheyani_Laibrary.WebTechnologies.html.html"
Title="Untitled Page" %>
                  ID="Content1" ContentPlaceHolderID="head"
<asp:Content
runat="server">
</asp:Content>
<asp:Content
                                                      ID="Content2"
ContentPlaceHolderID="ContentPlaceHolder1" runat="server">
  <div class="floating-element-right">
  <asp:Button ID="btnSignOut" runat="server" Text="Sign Out"
    onclick="btnSignOut_Click" />
</div>
<div class="parent-element">
                style="font-family:Palatino
                                                       Linotype; font-
<h3
size:large;color:Blue;">HTML</h3>
</div>
  <div class="floating-element">
         <img src="../../PageImage/HML_logo.jpeg" height="175px"</pre>
width="175px" style="border-style:inset; border-color:Gray"/>
       </div>
  <div class="floating-element-Center">
                        style="font-family:Times
    <h3
                                                                New
Roman; color: Blue; ">Introduction</h3>
```

HTML, which stands for HyperText Markup Language, is the predominant markup language for web pages. HTML is the basic building-blocks of webpages.

HTML is written in the form of HTML elements consisting of tags, enclosed in angle brackets (like <html>), within the web page content. HTML tags normally come in pairs lik, The first tag in a pair is the start tag, the second tag is the end tag (they are also called opening tags and closing tags)..

<h3 style="font-family:Times New Roman;color:Blue;">History</h3>

In 1980, physicist Tim Berners-Lee, who was a contractor at CERN, proposed and prototyped ENQUIRE, a system for CERN researchers to use and share documents. In 1989, Berners-Lee wrote a memo proposing an Internet-based hypertext system.[2] Berners-Lee specified HTML and wrote the browser and server software in the last part of 1990. In that year, Berners-Lee and CERN data systems engineer Robert Cailliau collaborated on a joint request for funding, but the project was not formally adopted by CERN. In his personal notes[3] from 1990 he lists[4] "some of the many areas in which hypertext is used" and puts an encyclopedia first.

First specifications

The first publicly available description of HTML was a document called HTML Tags, first mentioned on the Internet by Berners-Lee in late 1991.[5][6] It describes 20 elements comprising the initial, relatively simple design of HTML. Except for the hyperlink tag, these were strongly influenced by SGMLguid, an in-house SGML based documentation format at CERN. Thirteen of these elements still exist in HTML 4.

```
</div>
<div id="Table" class="parent-element">
<h3 style="font-family:Times New Roman;color:Blue;">PDF
Books</h3>
</div>
```

```
<div class="floating-element-Center">
   <strong>Here for your better study we are provide to you a lot
of books of PHP you can diretly
    download a books from this site.</strong>
 </div>
  <div id="PdfContent" class="floating-element-Center">
     Book Name
        Author Name
        Version 
        Download
      Cascading Style Sheets
        Sami Al rabi
        II nd Edition
        <asp:Button ID="btnDownload" runat="server"
Text="Download"
           onclick="btnDownload Click"/> 
      Html Basic
        Sami Al rabi
        Ist Edition
        Sutton
                        ID="Button1" runat="server"
Text="Download"
            onclick="Button1_Click" /> 
      Html Basic Arabi
        Sami Al rabi
        Ist Edition
        Button
                     ID="Button2"
                                      runat="server"
Text="Download"
```

```
</div>
</asp:Content>
Html code in c#:
using System;
using System.Collections;
using System.Configuration;
using System.Data;
using System.Ling;
using System. Web;
using System. Web. Security;
using System. Web. UI;
using System.Web.UI.WebControls;
using System.Web.UI.WebControls.WebParts;
using System.Web.UI.HtmlControls;
using System.Xml.Linq;
using System.IO;
namespace Altheyani_Laibrary.WebTechnologies.html
  public partial class html : System. Web. UI. Page
    string FilePath, fname, name, ext, type;
    bool forcedownlode = true;
    string myfilepath;
    protected void Page_Load(object sender, EventArgs e)
```

onclick="Button2 Click" />

```
}
protected void btnDownload_Click(object sender, EventArgs e)
  myfilepath = "pdf\\Cascading Style Sheets.pdf";
  DownloadFile(myfilepath);
public void DownloadFile(string Downloadpath)
  Response.ContentType = "Application/Rar";
  FilePath = MapPath(Downloadpath);
  fname = Path.GetFullPath(FilePath);
  name = Path.GetFileName(FilePath);
  ext = Path.GetExtension(FilePath);
  type = "";
  if (ext != null)
    switch (ext.ToLower())
       case ".txt":
         type = "Application/txt";
         break;
       case ".pdf":
         type = "Application/Pdf";
         break:
       case ".wmv":
         type = "Application/Wmv";
         break;
       case ".rar":
         type = "Application/Rar";
         break;
    if (forcedownlode)
```

```
Response. AppendHeader ("Content-disposition",
"attachment;filename=" + name);
         if (type != "")
           Response.ContentType = type;
           Response.WriteFile(FilePath);
           Response.End();
           Response.End();
    }
    protected void Button1_Click(object sender, EventArgs e)
      myfilepath = "pdf\\HTML ال ـ ف ي م تـ قدمة دورة.pdf";
      DownloadFile(myfilepath);
    protected void Button2_Click(object sender, EventArgs e)
      myfilepath = "pdf\\HTML.pdf";
      DownloadFile(myfilepath);
    }
    protected void btnSignOut_Click(object sender, EventArgs e)
       FormsAuthentication.SignOut();
```

```
Language="C#" MasterPageFile="~/Master1.Master"
        Page
<% <u>@</u>
AutoEventWireup="true"
                                     CodeBehind="javascript.aspx.cs"
Inherits="Altheyani_Laibrary.WebTechnologies.javaScript.javascript"
Title="Untitled Page" %>
                  ID="Content1"
<asp:Content
                                       ContentPlaceHolderID="head"
runat="server">
</asp:Content>
<asp:Content
                                                      ID="Content2"
ContentPlaceHolderID="ContentPlaceHolder1" runat="server">
  <div class="floating-element-right">
  <asp:Button ID="btnSignOut" runat="server" Text="Sign Out"
    onclick="btnSignOut Click"/>
</div>
<div class="parent-element">
                  style="font-family:Palatino
                                                       Linotype; font-
size:large;color:Blue;" >Java Script</h1>
       <div class="floating-element">
                             src="../../PageImage/javascript logo2.gif"
          <img
height="175px"
                 width="175px" style="border-style:inset;
                                                              border-
color:Gray"/>
       </div>
  <div class="floating-element-Center">
                        style="font-family:Times
    <h3
                                                                New
Roman; color: Blue; ">Introdution</h3>
```

JavaScript uses syntax influenced by that of C. JavaScript copies many names and naming conventions from Java, but the two languages are otherwise unrelated and have very different semantics.

The key design principles within JavaScript are taken from the Self and Scheme programming languages.

```
<h3 style="font-family:Times New Roman;color:Blue;">History</h3>
```

JavaScript was originally developed by Brendan Eich of Netscape under the name Mocha, which was later renamed to LiveScript, and finally to JavaScript.[11][12] LiveScript was the official name for the language when it first shipped in beta releases of Netscape Navigator 2.0 in September 1995, but it was renamed JavaScript in a joint announcement with Sun Microsystems on December 4, 1995 [13] when it was deployed in the Netscape browser version 2.0B3. [14]

The change of name from LiveScript to JavaScript roughly coincided with Netscape adding support for Java technology in its Netscape Navigator web browser. The final choice of name caused confusion, giving the impression that the language was a spin-off of the Java programming language, and the choice has been characterized by many as a marketing ploy by Netscape to give JavaScript the cachet of what was then the hot new web-programming language. [15] [16] It has also been claimed that the language's name is the result of a comarketing deal between Netscape and Sun, in exchange for Netscape bundling Sun's Java runtime with their then-dominant browser..

```
Book Name
       Author Name
       Version 
       Download
     JavaScript
       Bible
       1st Edition
       <asp:Button ID="btnDownload" runat="server"
Text="Download"
          onclick="btnDownload Click" /> 
     JavaScript - Notes
       Bible
       II nd Edition
       Sutton
                     ID="Button1" runat="server"
Text="Download"
          onclick="Button1 Click" /> 
     Java Script Basic
       Jason
       II nd Edition
       Sutton
                     ID="Button2" runat="server"
Text="Download"
          onclick="Button2 Click" /> 
     </div>
</asp:Content>
```

```
Form java script in c#:
using System;
using System.Collections;
using System.Configuration;
using System.Data;
using System.Ling;
using System. Web;
using System. Web. Security;
using System. Web. UI;
using System. Web. UI. WebControls;
using System. Web. UI. WebControls. WebParts;
using System. Web. UI. Html Controls;
using System.Xml.Ling;
using System.IO;
namespace Altheyani_Laibrary.WebTechnologies.javaScript
  public partial class javascript: System. Web. UI. Page
    string FilePath, fname, name, ext, type;
    bool forcedownlode = true;
    string myfilepath;
    protected void Page_Load(object sender, EventArgs e)
    protected void btnDownload_Click(object sender, EventArgs e)
       myfilepath = "pdf\\JavaScript - Notes.doc";
       DownloadFile(myfilepath);
```

```
public void DownloadFile(string Downloadpath)
       Response.ContentType = "Application/Rar";
       FilePath = MapPath(Downloadpath);
       fname = Path.GetFullPath(FilePath);
       name = Path.GetFileName(FilePath);
       ext = Path.GetExtension(FilePath);
       type = "";
       if (ext != null)
         switch (ext.ToLower())
            case ".txt":
              type = "Application/txt";
              break;
            case ".pdf":
              type = "Application/Pdf";
              break;
            case ".wmv":
              type = "Application/Wmv";
              break;
            case ".rar":
              type = "Application/Rar";
              break;
         if (forcedownlode)
            Response. AppendHeader ("Content-disposition",
"attachment; filename=" + name);
         if (type != "")
            Response.ContentType = type;
```

```
Response.WriteFile(FilePath);
           Response.End();
           Response.End();
       }
    protected void Button1_Click(object sender, EventArgs e)
      myfilepath = "pdf\\JavaScript Programs.doc";
      DownloadFile(myfilepath);
    }
    protected void Button2_Click(object sender, EventArgs e)
      myfilepath = "pdf\\JavaScript Tutorials.doc";
      DownloadFile(myfilepath);
    protected void btnSignOut_Click(object sender, EventArgs e)
      FormsAuthentication.SignOut();
Form php code in asp.net:
<% @
        Page
               Language="C#" MasterPageFile="~/Master1.Master"
AutoEventWireup="true"
                                          CodeBehind="php.aspx.cs"
Inherits="Altheyani_Laibrary.WebTechnologies.PHP.php"
Title="Untitled Page" %>
                  ID="Content1"
                                      ContentPlaceHolderID="head"
<asp:Content
runat="server">
</asp:Content>
```

```
<asp:Content
                                                       ID="Content2"
ContentPlaceHolderID="ContentPlaceHolder1" runat="server">
<div class="floating-element-right">
  <asp:Button ID="btnSignOut" runat="server" Text="Sign Out"
    onclick="btnSignOut_Click" />
</div>
  <div class="parent-element">
                  style="font-family:Palatino
                                                       Linotype; font-
size:large;color:Blue;">PHP</h1>
       <div class="floating-element">
                 src="../../PageImage/php_logo.jpg" height="175px"
width="175px" style="border-style:inset; border-color:Gray" />
       </div>
  <div class="floating-element-Center">
                        style="font-family:Times
                                                                 New
Roman; color: Blue; ">Introdution</h3>
```

PHP is a general-purpose scripting language originally designed for web development to produce dynamic web pages. For this purpose, PHP code is embedded into the HTML source document and interpreted by a web server with a PHP processor module, which generates the web page document. It also has evolved to include a command-line interface capability and can be used in standalone graphical applications. PHP can be deployed on most web servers and as a standalone interpreter, on almost every operating system and platform free of charge. PHP is installed on more than 20 million websites and 1 million web servers.

<h3 style="font-family:Times New Roman;color:Blue;">History</h3>

PHP originally stood for personal home page.Its development began in 1994 when the Danish/Greenlandic programmer Rasmus Lerdorf initially created a set of Perl scripts he called 'Personal

Home Page Tools' to maintain his personal homepage, including tasks such as displaying his résumé and recording how much traffic his page was receiving.

Zeev Suraski and Andi Gutmans, two Israeli developers at the Technion IIT, rewrote the parser in 1997 and formed the base of PHP 3, changing the language's name to the recursive initialism PHP: Hypertext Preprocessor. Afterwards, public testing of PHP 3 began, and the official launch came in June 1998. Suraski and Gutmans then started a new rewrite of PHP's core, producing the Zend Engine in 1999. They also founded Zend Technologies in Ramat Gan, Israel.

In 2008 PHP 5 became the only stable version under development. Late static binding had been missing from PHP and was added in version 5.3.

```
</div>
 </div>
<div id="Table" class="parent-element">
        style="font-family:Times New Roman;color:Blue;">PDF
Books</h3>
</div>
  <div class="floating-element-Center">
   <strong>Here for your better study we are provide to you a lot
of books of PHP you can diretly
     download a books from this site.</strong>
  </div>
 <div id="PdfContent" class="floating-element-Center">
     Book Name
         Author Name
         Version 
         Download
```

```
PHP and MySql
         Bible
         1st Edition
         <asp:Button ID="btnDownload" runat="server"
Text="Download"
             onclick="btnDownload Click" /> 
       Php Arabi
          Bible
          II nd Edition
          Sutton
                            ID="Button1" runat="server"
Text="Download"
              onclick="Button1_Click" /> 
       </div>
</asp:Content>
C#
using System;
using System.Collections;
using System. Configuration;
using System.Data;
using System.Ling;
using System. Web;
using System. Web. Security;
using System.Web.UI;
using System.Web.UI.WebControls;
using System. Web. UI. WebControls. WebParts;
using System. Web. UI. Html Controls;
using System.Xml.Linq;
```

```
using System.IO;
namespace Altheyani_Laibrary.WebTechnologies.PHP
  public partial class php: System. Web. UI. Page
    string FilePath, fname, name, ext, type;
    bool forcedownlode = true;
    string myfilepath;
    protected void Page_Load(object sender, EventArgs e)
     }
    protected void btnDownload_Click(object sender, EventArgs e)
       myfilepath = "pdf\\php.pdf";
       DownloadFile(myfilepath);
    public void DownloadFile(string Downloadpath)
       Response.ContentType = "Application/Rar";
       FilePath = MapPath(Downloadpath);
       fname = Path.GetFullPath(FilePath);
       name = Path.GetFileName(FilePath);
       ext = Path.GetExtension(FilePath);
       type = "";
       if (ext != null)
         switch (ext.ToLower())
            case ".txt":
              type = "Application/txt";
              break:
            case ".pdf":
```

```
type = "Application/Pdf";
              break;
            case ".wmv":
              type = "Application/Wmv";
              break;
            case ".rar":
              type = "Application/Rar";
              break;
         if (forcedownlode)
            Response. AppendHeader ("Content-disposition",
"attachment; filename=" + name);
         if (type != "")
            Response.ContentType = type;
            Response.WriteFile(FilePath);
            Response.End();
           Response.End();
     }
    protected void Button1_Click(object sender, EventArgs e)
       myfilepath = "pdf\\php1.pdf";
       DownloadFile(myfilepath);
     }
    protected void btnSignOut_Click(object sender, EventArgs e)
       FormsAuthentication.SignOut();
```

} }

Networking page:

Ccna:

<%@ Page Language="C#" MasterPageFile="~/Master1.Master"
AutoEventWireup="true" CodeBehind="ccna.aspx.cs"</pre>

```
Inherits="Altheyani Laibrary.NetWorking.Microsoft.CCNA.ccna"
Title="Untitled Page" %>
                 ID="Content1"
<asp:Content
                                     ContentPlaceHolderID="head"
runat="server">
</asp:Content>
<asp:Content
                                                    ID="Content2"
ContentPlaceHolderID="ContentPlaceHolder1" runat="server">
  <div class="floating-element-right">
  <asp:Button ID="btnSignOut" runat="server" Text="Sign Out"
    onclick="btnSignOut Click"/>
</div>
   <div class="parent-element">
                  style="font-family:Palatino
                                                     Linotype; font-
    <h1
size:large;color:Blue;" >CCNA</h1>
       <div class="floating-element">
                            src="../../PageImage/CCNA_LOGO.jpeg"
         <img
                 width="175px" style="border-style:inset;
height="175px"
color:Gray"/>
       </div>
  <div class="floating-element-Center">
                       style="font-family:Times
    <h3
                                                              New
Roman; color: Blue; ">Introdution</h3>
       CCNA is the Cisco Certified Network Associate"
```

CCNA is the Cisco Certified Network Associate" certification from Cisco. In speech and in writing, this certification is properly referred to by the initials CCNA rather than the full name.

<h3 style="font-family:Times New Roman;color:Blue;">History</h3>

CCNA certification is a second-level Cisco Career certification. CCNA certification validates the ability to install, configure, operate, and troubleshoot medium-size routed and switched networks, including implementation and verification of connections to remote sites in a WAN.

To achieve CCNA certification, one must earn a passing score on Cisco exam #640-802, or combined passing scores on both the ICND1 #640-822 and ICND2 #640-816 exams. Passing the ICND1 grants one the Cisco Certified Entry Networking Technician (CCENT). Passing scores are set by using statistical analysis and are subject to change. At the completion of the exam, candidates receive a score report along with a score breakout by exam section and the passing score for the given exam. Cisco does not publish exam passing scores because exam questions and passing scores are subject to change without notice.

```
</div>
 </div>
 <div id="Table" class="parent-element">
   <h3
        style="font-family:Times New Roman;color:Blue;">PDF
Books</h3>
</div>
  <div class="floating-element-Center">
   <strong>Here for your better study we are provide to you a lot
of books of PHP you can diretly
     download a books from this site.</strong>
 </div>
 <div id="PdfContent" class="floating-element-Center">
     Book Name
         Author Name
         Version 
         Download
       Network intro part 1
         Bible
         1st Edition
```

```
<asp:Button ID="btnDownload" runat="server"
Text="Download"
           onclick="btnDownload Click" /> 
      Bible
        II nd Edition
        Button
                       ID="Button1" runat="server"
Text="Download"
           onclick="Button1 Click" /> 
      Network intro part 2
        Bible
        II nd Edition
        Sutton
                       ID="Button2" runat="server"
Text="Download"
           onclick="Button2 Click" /> 
      Network intro part 3
        Bible
        II nd Edition
        Sutton
                       ID="Button3" runat="server"
Text="Download"
           onclick="Button3_Click" /> 
      Network intro part 3
        Bible
        II nd Edition
                       ID="Button4" runat="server"
        Sutton
Text="Download"
           onclick="Button4 Click" />
```

```
Network intro part 4
        Bible
        II nd Edition
        Button
                      ID="Button5" runat="server"
Text="Download"
           onclick="Button5_Click" /> 
      Network intro part 5
        Bible
        II nd Edition
        Button
                      ID="Button6" runat="server"
Text="Download"
           onclick="Button6_Click" /> 
      >
        Network intro part 6
        Bible
        II nd Edition
        Sutton
                      ID="Button7" runat="server"
Text="Download"
           onclick="Button7 Click"/> 
      Network intro part 7
        Bible
        II nd Edition
                      ID="Button8" runat="server"
        Sutton
Text="Download"
           onclick="Button8 Click" /> 
      CCNA-640-801-StudyGuide
```

```
Bible
        II nd Edition
        Sutton
                        ID="Button9" runat="server"
Text="Download"
           onclick="Button9 Click" /> 
      CCNA_ECG
        Bible
        II nd Edition
        <asp:Button ID="Button10" runat="server"
Text="Download"
           onclick="Button10_Click"/> 
      NoStarch Press - Cisco Routers for the Desperate
        Bible
        II nd Edition
        <asp:Button ID="Button11" runat="server"
Text="Download"
           onclick="Button11_Click" /> 
      NoStarch Press - Cisco Routers for the Desperate
        Bible
        II nd Edition
        <asp:Button ID="Button12" runat="server"
Text="Download"
           onclick="Button12 Click"/>
```

```
</div>
<div id="DivVedio" class="floating-element-Center">
    Vedio title 
       About Vedio 
       Version 
       Download
      C.C.N.A
       Complete Traninig kit of ccna. Here i have provide Part
1.
       Part 1
       <asp:Button ID="btnDownloadVedio1" runat="server"
Text="Download"
          C.C.N.A
        Complete Traninig kit of ccna. Here i have provide
Part 2.
        Part 2
        Sutton
                            ID="btnDoemLoadVedio2"
runat="server"
                                  Text="Download"
onclick="btnDoemLoadVedio2 Click"
           /> 
      >
        C.C.N.A
        Complete Traninig kit of ccna. Here i have provide
Part 3.
        Part 3
```

```
Sutton
                              ID="btnDownLoadVedio3"
runat="server"
                                    Text="Download"
onclick="btnDownLoadVedio3 Click"
            /> 
      C.C.N.A
        Complete Traninig kit of ccna. Here i have provide
Part 4.
        Part 4
        Button
                               ID="btnDownloadVedio4"
runat="server" Text="Download"
            /> 
      C.C.N.A
        Complete Traninig kit of ccna. Here i have provide
Part 5.
        Part 5
                              ID="btnDownloadVedio5"
        Button
runat="server" Text="Download"
            /> 
      C.C.N.A
        Complete Traninig kit of ccna. Here i have provide
Part 6.
        Part 6
                               ID="btnDownloadVedio6"
        Button
runat="server" Text="Download"
            /> 
       C.C.N.A
```

```
Complete Traninig kit of ccna. Here i have provide
Part 7.
          Part 7
                                   ID="btnDownloadVedio7"
          Button
runat="server" Text="Download"
              /> 
       C.C.N.A
          Complete Traninig kit of ccna. Here i have provide
Part 8.
          Part 8
          Button
                                   ID="btnDownloadVedio8"
runat="server" Text="Download"
              /> 
       </div>
</asp:Content>
C#
using System;
using System.Collections;
using System.Configuration;
using System.Data;
using System.Ling;
using System. Web;
using System. Web. Security;
```

```
using System. Web. UI;
using System. Web. UI. WebControls;
using System. Web. UI. WebControls. WebParts;
using System. Web. UI. Html Controls;
using System.Xml.Ling;
using System.IO;
namespace Altheyani_Laibrary.NetWorking.Microsoft.CCNA
  public partial class ccna: System. Web. UI. Page
    string FilePath, fname, name, ext, type;
    bool forcedownlode = true;
    string myfilepath;
    protected void Page_Load(object sender, EventArgs e)
    protected void btnDownload_Click(object sender, EventArgs e)
       myfilepath = "pdf\\01 - Network intr.rar";
       DownloadFile(myfilepath);
    public void DownloadFile(string Downloadpath)
       Response.ContentType = "Application/Rar";
       FilePath = MapPath(Downloadpath);
       fname = Path.GetFullPath(FilePath);
       name = Path.GetFileName(FilePath);
       ext = Path.GetExtension(FilePath);
       type = "";
       if (ext != null)
         switch (ext.ToLower())
```

```
case ".txt":
              type = "Application/txt";
              break;
            case ".pdf":
              type = "Application/Pdf";
              break;
            case ".wmv":
              type = "Application/Wmv";
              break;
            case ".rar":
              type = "Application/Rar";
              break;
         if (forcedownlode)
            Response. AppendHeader ("Content-disposition",
"attachment;filename=" + name);
         if (type != "")
            Response.ContentType = type;
            Response.WriteFile(FilePath);
            Response.End();
           Response.End();
     public void DownloadFileVedio(string Downloadpath)
       Response.ContentType = "Application/Avi";
       FilePath = MapPath(Downloadpath);
       fname = Path.GetFullPath(FilePath);
```

```
name = Path.GetFileName(FilePath);
       ext = Path.GetExtension(FilePath);
       type = "";
       if (ext != null)
         switch (ext.ToLower())
            case ".txt":
              type = "Application/txt";
              break;
            case ".pdf":
              type = "Application/Pdf";
              break:
            case ".wmv":
              type = "Application/Wmv";
              break;
            case ".rar":
              type = "Application/Rar";
              break;
               case ".avi":
              type = "Application/Avi";
              break;
         if (forcedownlode)
            Response. Append Header ("Content-disposition",
"attachment; filename=" + name);
         if (type != "")
            Response.ContentType = type;
            Response.WriteFile(FilePath);
```

```
Response.End();
            Response.End();
       }
    protected void Button1_Click(object sender, EventArgs e)
       myfilepath = "pdf\\02 - Profissionals Way.rar";
       DownloadFile(myfilepath);
    protected void Button2_Click(object sender, EventArgs e)
       myfilepath = "pdf\\03 - IP address and subnetting.rar";
       DownloadFile(myfilepath);
    }
    protected void Button3_Click(object sender, EventArgs e)
       myfilepath = "pdf \setminus 04 - IP address and subnetting 2.rar";
       DownloadFile(myfilepath);
    protected void Button4 Click(object sender, EventArgs e)
       myfilepath = "pdf\\05 - Intro to Cisco routers.rar";
       DownloadFile(myfilepath);
                                               myfilepath
                                                                      =
"NetWorking\\CCNA\\pdf\\01 - Network intr.rar";
       DownloadFile(myfilepath);
    }
    protected void Button5_Click(object sender, EventArgs e)
       myfilepath = "pdf\\06 - Access contol list.rar";
       DownloadFile(myfilepath);
```

```
}
protected void Button6_Click(object sender, EventArgs e)
  myfilepath = "pdf\\07 - Routing Protocol Intro.rar";
  DownloadFile(myfilepath);
protected void Button7_Click(object sender, EventArgs e)
  myfilepath = "pdf\\08 - Routing protocol Rip -IGRP.rar";
  DownloadFile(myfilepath);
}
protected void Button8_Click(object sender, EventArgs e)
  myfilepath = "pdf\\09 - Routing Protocols EIGRP-OSPF.rar";
  DownloadFile(myfilepath);
protected void Button9_Click(object sender, EventArgs e)
  myfilepath = "pdf\\10 - Frame Relay_ Part1.rar";
  DownloadFile(myfilepath);
}
protected void Button10_Click(object sender, EventArgs e)
  myfilepath = "pdf\\CCNA-640-801-StudyGuide-ver2.4.pdf";
  DownloadFile(myfilepath);
}
protected void Button11 Click(object sender, EventArgs e)
  myfilepath = "pdf\\CCNA_ECG.pdf";
```

```
DownloadFile(myfilepath);
    protected void Button12_Click(object sender, EventArgs e)
      myfilepath = "pdf\\NoStarch Press - Cisco Routers for the
Desperate, Router Management the Easy Way.pdf";
      DownloadFile(myfilepath);
    }
    protected void btnSignOut_Click(object sender, EventArgs e)
      FormsAuthentication.SignOut();
    protected
                 void
                         btnDownloadVedio1 Click(object
                                                             sender.
EventArgs e)
      myfilepath = @ "vedio\Vedio1.avi";
      DownloadFileVedio(myfilepath);
    }
                        btnDoemLoadVedio2_Click(object
    protected
                void
                                                             sender,
EventArgs e)
      myfilepath = @"vedio\Vedio10.avi";
      DownloadFileVedio(myfilepath);
    }
    protected
                        btnDownLoadVedio3_Click(object
                 void
                                                             sender,
EventArgs e)
    {
      myfilepath = @ "vedio\Vedio11.avi";
      DownloadFileVedio(myfilepath);
```

```
}
```

Mcitp:

```
<% @
       Page
              Language="C#" MasterPageFile="~/Master1.Master"
AutoEventWireup="true"
                                       CodeBehind="Mcitp.aspx.cs"
Inherits="Altheyani_Laibrary.NetWorking.Microsoft.MCITP.Mcitp"
Title="Untitled Page" %>
                                      ContentPlaceHolderID="head"
                  ID="Content1"
<asp:Content
runat="server">
  <style type="text/css">
    .style1
    {
      float: right;
      bordr: 1px;
      border-color: Blue;
      margin: 5px;
      padding: 5px;
      background-color: Silver;
```

```
</style>
</asp:Content>
<asp:Content
                                                      ID="Content2"
ContentPlaceHolderID="ContentPlaceHolder1" runat="server">
  <div class="style1">
    <asp:Button ID="btnSignOut" runat="server" Text="Sign Out"
       onclick="btnSignOut_Click" />
 </div>
  <div class="parent-element">
                  style="font-family:Palatino
                                                      Linotype; font-
size:large;color:Blue;">MCITP</h1>
       <div class="floating-element">
                          src="../../PageImage/microsoft_logo.jpeg"
          <img
                 width="175px" style="border-style:inset;
height="175px"
color:Gray"/>
       </div>
  <div class="floating-element-Center">
                        style="font-family:Times
    <h3
                                                                New
Roman; color: Blue; ">Introdution</h3>
       Microsoft Certified Professional (MCP) is a program of
Professional
                                        by Microsoft.
              certifications
                             awarded
                                                          Individual
certifications are awarded upon passing of one or more exams. The MCP
program itself is designed for both IT Professionals and developers.
Beneath the MCP program is a variety of more targeted and focused
certifications (e.g. Microsoft Certified IT Professional, etc).
style="font-family:Times
          <h3
                                                                New
Roman; color: Blue; ">History</h3>
```

There are many benefits to Microsoft certification including industry recognition, access to technical and product information directly from Microsoft, discounts on products and services, Microsoft paraphernalia like custom logos, certificate, transcript etc.

However the immediate and most important benefit is the increase in market value and importance of the person and boost in his / her career meant for software professionals.

Each exam costs approximately \$150 USD. Exams usually take between 2 and 3 hours to complete and consist of between 40 and 90 multiple choice, drag and drop, solution building questions and simulated content within exams where students are required to perform certain common administrative tasks appropriate for the topic at hand.

```
</div>
 </div>
 <div id="Table" class="parent-element">
        style="font-family:Times New Roman;color:Blue;">PDF
Books</h3>
</div>
<div class="floating-element-Center">
   <strong>Here for your better study we are provide to you a lot
of books of MCITP you can diretly
     download a books from this site.</strong>
 </div>
 <div id="PdfContent" class="floating-element-Center">
     Book Name
         Author Name
         Version 
         Download
       01 Internetworking
         Institute
         1st Edition
         <asp:Button ID="btnDownload" runat="server"
Text="Download"
```

```
onclick="btnDownload Click" /> 
        The Basic Networking Knowledge
           Bible
          II nd Edition
          Sutton
                              ID="Button1" runat="server"
Text="Download"
               onclick="Button1_Click" /> 
        </div>
</asp:Content>
C#
using System;
using System.Collections;
using System.Configuration;
using System.Data;
using System.Ling;
using System. Web;
using System. Web. Security;
using System. Web. UI;
using System. Web. UI. WebControls;
using System.Web.UI.WebControls.WebParts;
using System. Web. UI. Html Controls;
using System.Xml.Ling;
using System.IO;
namespace Altheyani_Laibrary.NetWorking.Microsoft.MCITP
{
```

```
public partial class Mcitp: System. Web. UI. Page
  string FilePath, fname, name, ext, type;
  bool forcedownlode = true;
  string myfilepath;
  protected void Page_Load(object sender, EventArgs e)
  protected void btnDownload_Click(object sender, EventArgs e)
    myfilepath = "pdf\\01 - Network intro.rar";
    DownloadFile(myfilepath);
  public void DownloadFile(string Downloadpath)
    Response.ContentType = "Application/Pdf";
    FilePath = MapPath(Downloadpath);
    fname = Path.GetFullPath(FilePath);
    name = Path.GetFileName(FilePath);
    ext = Path.GetExtension(FilePath);
    type = "";
    if (ext != null)
       switch (ext.ToLower())
         case ".txt":
            type = "Application/txt";
            break;
         case ".pdf":
            type = "Application/Pdf";
            break;
         case ".wmv":
            type = "Application/Wmv";
```

```
break;
           case ".rar":
              type = "Application/Rar";
              break;
         if (forcedownlode)
           Response. AppendHeader ("Content-disposition",
"attachment;filename=" + name);
         if (type != "")
           Response.ContentType = type;
           Response.WriteFile(FilePath);
           Response.End();
           Response.End();
    }
    protected void Button1_Click(object sender, EventArgs e)
       myfilepath = "pdf\\01 The Basic Networking Knowledge.pdf";
      DownloadFile(myfilepath);
    }
    protected void btnSignOut_Click(object sender, EventArgs e)
       FormsAuthentication.SignOut();
      Response.Redirect("../../Login.aspx");
```

Database page code:

```
<div id="web" class="parent-element">
 <div id="child" class="floating-element">
  <asp:Panel ID="pnlmenu" runat="server">
    <div id="ddblueblockmenu">
<div class="menutitle">Data Base</div>
ul>
<a href="../DataBase/Oracle/oracle.aspx">Oracle</a>
<a href="../DataBase/sql/sql.aspx">MS Sql</a>
<a href="../WebTechnologies/Ajax/Ajax.aspx">Ajax</a>
<div class="menutitle">Web Technologies</div>
ul>
<a href="../WebTechnologies/JSP/jsp.aspx">Jsp</a>
<a href="../WebTechnologies/html/html.aspx">Html</a>
<a
href="../WebTechnologies/javaScript/javascript.aspx">JavaScript</a>
1i>
<a
href="../WebTechnologies/CSS_Language/cssLanguage.aspx">CSS</a
>
<div class="menutitle">PHP</div>
ul>
<a href="../WebTechnologies/PHP/php.aspx">PHP </a>
<div class="menutitle">Programing</div>
  <u1>
<a href="../Programing/Csharp/CSharp.aspx">C#</a>
<a href="../Programing/Java/java.aspx">Java</a>
</div>
```

```
</div>
</div>
&nbsp;&nbsp;
<div id="child2" class="floating-element-Center">
```

A database is a system intended to organize, store, and retrieve large amounts of data easily. It consists of an organized collection of data for one or more uses, typically in digital form. One way of classifying databases involves the type of their contents, for example: bibliographic, document-text, statistical. Digital databases are managed using database management systems, which store database contents, allowing data creation and maintenance, and search and other access.

A database management system (DBMS) consists of software that operates databases, providing storage, access, security, backup and other facilities. Database management systems can be categorized according to the database model that they support, such as relational or XML, the type(s) of computer they support, such as a server cluster or a mobile phone, the query language(s) that access the database, such as SQL or XQuery, performance trade-offs, such as maximum scale or maximum speed or others. Some DBMS cover more than one entry in these categories, e.g., supporting multiple query languages. Examples of some commonly used DBMS are MySQL, PostgreSQL, Microsoft Access, SQL Server, FileMaker,Oracle,Sybase, dBASE, Clipper,FoxPro etc. Almost every database software comes with an Open Database Connectivity (ODBC) driver that allows the database to integrate with other databases.

Data warehouses archive modern data from operational databases and often from external sources such as market research firms. Often operational data undergoes transformation on its way into the warehouse, getting summarized, anonymized, reclassified, etc. The warehouse becomes the central source of data for use by managers and other end-users who may not have access to operational data. For example, sales data might be aggregated to weekly totals and converted from internal product codes to use UPC codes so that it can be compared with ACNielsen data. Some basic and essential components of data

warehousing include retrieving and analyzing data, transforming, loading and managing data so as to make it available for further use.

Operations in a data warehouse are typically concerned with bulk data manipulation, and as such, it is unusual and inefficient to target individual rows for update, insert or delete. Bulk native loaders for input data and bulk SQL passes for aggregation are the norm.

```
</div>
&nbsp;&nbsp;&nbsp;
</div>
</asp:Content>
```

Oracle:

```
<% @
        Page
               Language="C#" MasterPageFile="~/Master1.Master"
AutoEventWireup="true"
                                        CodeBehind="oracle.aspx.cs"
Inherits="Altheyani_Laibrary.DataBase.Oracle.oracle" Title="Untitled
Page" %>
<asp:Content
                  ID="Content1"
                                       ContentPlaceHolderID="head"
runat="server">
</asp:Content>
                                                     ID="Content2"
<asp:Content
ContentPlaceHolderID="ContentPlaceHolder1" runat="server">
  <div class="floating-element-right">
 <asp:Button ID="btnSignout" runat="server" Text="Sign Out"
    onclick="btnSignout_Click" />
</div>
<div class="parent-element">
                  style="font-family:Palatino
                                                      Linotype; font-
size:large;color:Blue;">Oracle</h1>
       <div class="floating-element">
                              src="../../PageImage/oravcle logo.jpeg"
height="175px"
                 width="175px" style="border-style:inset;
color:Gray"/>
```

The Oracle Database (commonly referred to as Oracle RDBMS or simply as Oracle) is an object-relational database management system (ORDBMS) produced and marketed by Oracle Corporation.

```
<h3 style="font-family:Times New Roman;color:Blue;">History</h3>
```

Larry Ellison and his friends and former co-workers Bob Miner and Ed Oates started the consultancy Software Development Laboratories (SDL) in 1977. SDL developed the original version of the Oracle software. The name Oracle comes from the code-name of a CIA-funded project Ellison had worked on while previously employed by Ampex

Author Name

```
Version 
        Download
      Actual Test 2005.pdf
        Question Ans Series
        1st Edition
        <asp:Button ID="btnDownload" runat="server"
Text="Download"
           onclick="btnDownload Click" /> 
      Actual Test 2006.pdf
        Question Ans Series
        II nd Edition
        Button
                       ID="Button1" runat="server"
Text="Download"
           onclick="Button1 Click" /> 
      Actual Test 2007.pdf
        Question Ans Series
        1st Edition
        Button
                       ID="Button2"
                                     runat="server"
Text="Download"
           onclick="Button2 Click" /> 
      Actual Test 2008.pdf
        Question Ans Series
        1st Edition
        Button
                       ID="Button3"
                                     runat="server"
Text="Download"
           onclick="Button3_Click" />
```

```
SelfTest_OCP_1Z0-042.pdf
        Question Ans Series
        1st Edition
       Button
                       ID="Button4" runat="server"
Text="Download"
           onclick="Button4 Click"/> 
      Student Guide 1.pdf
        Question Ans Series
        1st Edition
       Button
                       ID="Button5"
                                    runat="server"
Text="Download"
           onclick="Button5 Click"/> 
      Student Guide 2.pdf
        Question Ans Series
        1st Edition
       Button
                       ID="Button6"
                                    runat="server"
Text="Download"
           onclick="Button6 Click" /> 
      Study Guide 1.pdf
        Question Ans Series
        1st Edition
       Sutton
                       ID="Button7"
                                    runat="server"
Text="Download"
           onclick="Button7_Click" /> 
      Study Guide 2.pdf
```

```
Question Ans Series
        1st Edition
       Button
                       ID="Button8"
                                     runat="server"
Text="Download"
           onclick="Button8_Click" /> 
      Test King.pdf
       Question Ans Series
        1st Edition
                       ID="Button9"
       Button
                                     runat="server"
Text="Download"
           onclick="Button9_Click"/> 
      Testking 1.pdf
       Question Ans Series
       1st Edition
       Button
                       ID="Button10" runat="server"
Text="Download"
           onclick="Button10_Click" /> 
      Testking 2.pdf
       Question Ans Series
        1st Edition
       Button
                       ID="Button11" runat="server"
Text="Download"
           onclick="Button11 Click"/> 
      </div>
```

```
</asp:Content>
C#
using System;
using System.Collections;
using System.Configuration;
using System.Data;
using System.Ling;
using System. Web;
using System. Web. Security;
using System. Web. UI;
using System. Web. UI. WebControls;
using System. Web. UI. WebControls. WebParts;
using System. Web. UI. Html Controls;
using System.Xml.Linq;
using System.IO;
namespace Altheyani_Laibrary.DataBase.Oracle
  public partial class oracle: System. Web. UI. Page
    string FilePath, fname, name, ext, type;
    bool forcedownlode = true;
    string myfilepath;
    protected void Page_Load(object sender, EventArgs e)
     }
    protected void btnDownload_Click(object sender, EventArgs e)
       myfilepath = "pdf\\Actual Test 2005.pdf";
       DownloadFile(myfilepath);
    public void DownloadFile(string Downloadpath)
```

```
Response.ContentType = "Application/Pdf";
       FilePath = MapPath(Downloadpath);
       fname = Path.GetFullPath(FilePath);
       name = Path.GetFileName(FilePath);
       ext = Path.GetExtension(FilePath);
       type = "";
       if (ext != null)
         switch (ext.ToLower())
            case ".txt":
              type = "Application/txt";
              break;
            case ".pdf":
              type = "Application/Pdf";
              break;
            case ".wmv":
              type = "Application/Wmv";
              break:
            case ".rar":
              type = "Application/Rar";
              break;
         if (forcedownlode)
            Response. AppendHeader ("Content-disposition",
"attachment;filename=" + name);
         if (type != "")
            Response.ContentType = type;
            Response.WriteFile(FilePath);
```

```
Response.End();
       Response.End();
  }
}
protected void Button1_Click(object sender, EventArgs e)
  myfilepath = "pdf\\Actual Test 2006.pdf";
  DownloadFile(myfilepath);
protected void Button2_Click(object sender, EventArgs e)
  myfilepath = "pdf\\Actual Test 2007.pdf";
  DownloadFile(myfilepath);
}
protected void Button3_Click(object sender, EventArgs e)
  myfilepath = "pdf\\Actual Test 2008.pdf";
  DownloadFile(myfilepath);
}
protected void Button4_Click(object sender, EventArgs e)
  myfilepath = "pdf\\SelfTest_OCP_1Z0-042.pdf";
  DownloadFile(myfilepath);
}
protected void Button5_Click(object sender, EventArgs e)
  myfilepath = "pdf\\Student Guide 1.pdf";
  DownloadFile(myfilepath);
```

```
protected void Button6_Click(object sender, EventArgs e)
  myfilepath = "pdf\\Student Guide 2.pdf";
  DownloadFile(myfilepath);
protected void Button7_Click(object sender, EventArgs e)
  myfilepath = "pdf\\Study Guide 1.pdf";
  DownloadFile(myfilepath);
protected void Button8_Click(object sender, EventArgs e)
  myfilepath = "pdf\\Study Guide 2.pdf";
  DownloadFile(myfilepath);
protected void Button9_Click(object sender, EventArgs e)
  myfilepath = "pdf\\Test King.pdf";
  DownloadFile(myfilepath);
}
protected void Button10_Click(object sender, EventArgs e)
   myfilepath = "pdf\\Testking 1.pdf";
  DownloadFile(myfilepath);
protected void Button11_Click(object sender, EventArgs e)
   myfilepath = "pdf\\Testking 2.pdf";
  DownloadFile(myfilepath);
```

```
}
    protected void btnSignout_Click(object sender, EventArgs e)
       FormsAuthentication.SignOut();
Sql server:
<mark><%</mark> @
        Page
               Language="C#" MasterPageFile="~/Master1.Master"
AutoEventWireup="true"
                                           CodeBehind="sql.aspx.cs"
Inherits="Altheyani_Laibrary.DataBase.sql.sql" Title="Untitled Page"
%>
<asp:Content
                  ID="Content1"
                                       ContentPlaceHolderID="head"
runat="server">
</asp:Content>
<asp:Content
                                                       ID="Content2"
ContentPlaceHolderID="ContentPlaceHolder1" runat="server">
  <div class="floating-element-right">
  <asp:Button ID="btnSignOut" runat="server" Text="Sign Out"
    onclick="btnSignOut Click"/>
</div>
  <div class="parent-element">
                  style="font-family:Palatino
                                                       Linotype; font-
    <h1
size:large;color:Blue;" >MS Sql Server</h1>
       <div class="floating-element">
                                                     height="175px"
                 src="../../PageImage/sql_logo.jpeg"
width="175px" style="border-style:inset; border-color:Gray"/>
       </div>
  <div class="floating-element-Center">
                        style="font-family:Times
    <h3
                                                                 New
Roman; color: Blue; ">Introdution</h3>
```

SQL often referred to as Structured Query Language, is a database computer language designed for managing data in relational database management systems (RDBMS), and originally based upon

relational algebra and calculus. Its scope includes data insert, query, update and delete, schema creation and modification, and data access control. SQL was one of the first commercial languages for Edgar F. Codd's relational model, as described in his influential 1970 paper, "A Relational Model of Data for Large Shared Data Banks". Despite not adhering to the relational model as described by Codd, it became the most widely used database language

```
<h3 style="font-family:Times New Roman;color:Blue;">History</h3>
```

SQL was developed at IBM by Donald D. Chamberlin and Raymond F. Boyce in the early 1970s. This version, initially called SEQUEL (Structured English Query Language), was designed to manipulate and retrieve data stored in IBM's original quasi-relational database management system, System R, which a group at IBM San Jose Research Laboratory had developed during the 1970s. The acronym SEQUEL was later changed to SQL because "SEQUEL" was a trademark of the UK-based Hawker Siddeley aircraft company.

The first Relational Database Management System (RDBMS) was RDMS, developed at MIT in the early 1970s, soon followed by Ingres, developed in 1974 at U.C. Berkeley. Ingres implemented a query language known as QUEL, which was later supplanted in the marketplace by SQL.

```
<div id="PdfContent" class="floating-element-Center">
    Book Name
       Author Name
       Version 
       Download
      Study Guide Part 
       Study Material
       1st Edition
       Button
                    ID="btnDownload" runat="server"
Text="Download"
          Study Guide Part 
        Study Materail
        II nd Edition
                      ID="Button1" runat="server"
        Sutton
Text="Download" /> 
      </div>
</asp:Content>
C#
using System;
using System.Collections;
using System.Configuration;
using System.Data;
using System.Ling;
```

```
using System. Web;
using System. Web. Security;
using System.Web.UI;
using System. Web. UI. WebControls;
using System. Web. UI. WebControls. WebParts;
using System. Web. UI. Html Controls;
using System.Xml.Linq;
using System.IO;
namespace Altheyani_Laibrary.DataBase.sql
  public partial class sql: System.Web.UI.Page
    string FilePath, fname, name, ext, type;
    bool forcedownlode = true;
    string myfilepath;
    protected void Page_Load(object sender, EventArgs e)
     }
    protected void btnDownload_Click(object sender, EventArgs e)
       myfilepath = "pdf\\10gManagingOracleonLinuxforDBA.pdf";
       DownloadFile(myfilepath);
    public void DownloadFile(string Downloadpath)
      Response.ContentType = "Application/Pdf";
      FilePath = MapPath(Downloadpath);
      fname = Path.GetFullPath(FilePath);
      name = Path.GetFileName(FilePath);
       ext = Path.GetExtension(FilePath);
       type = "";
      if (ext != null)
```

```
switch (ext.ToLower())
            case ".txt":
              type = "Application/txt";
              break;
            case ".pdf":
              type = "Application/Pdf";
              break;
            case ".wmv":
              type = "Application/Wmv";
              break;
            case ".rar":
              type = "Application/Rar";
              break;
         if (forcedownlode)
            Response. AppendHeader ("Content-disposition",
"attachment; filename=" + name);
         if (type != "")
            Response.ContentType = type;
            Response.WriteFile(FilePath);
            Response.End();
            Response.End();
    protected void Button1_Click(object sender, EventArgs e)
```

```
myfilepath = "pdf \setminus 1Z0-046.pdf";
      DownloadFile(myfilepath);
    protected void btnSignOut_Click(object sender, EventArgs e)
      FormsAuthentication.SignOut();
          Join page code:
       Page Language="C#" MasterPageFile="~/Master1.Master"
<% @
AutoEventWireup="true"
                                   CodeBehind="JoinUs.aspx.cs"
Inherits="Altheyani_Laibrary.JoinUs" Title="Untitled Page" %>
                ID="Content1"
                                   ContentPlaceHolderID="head"
<asp:Content
runat="server">
</asp:Content>
<asp:Content
                                                ID="Content2"
ContentPlaceHolderID="ContentPlaceHolder1" runat="server">
<div id="createAccount" class="floating-element-Center">
    >
                          ID="lblMessage"
          <asp:Label
                                           runat="server"
Visible="false"></asp:Label>
        <caption>Create Your Account</caption>
      >
          <asp:Label ID="LblUserName" runat="server" Text="User"
Name"></asp:Label>
```

```
<asp:TextBox ID="txtUserName" runat="server"
AutoPostBack="True"></asp:TextBox>
       <asp:RequiredFieldValidator
ID="RequiredFieldValidator1" runat="server"
           ControlToValidate="txtUserName"
ErrorMessage="Please
                          Enter
                                       the
                                                   User
Name;"></asp:RequiredFieldValidator>
       >
       <asp:Label ID="lblpassword"
                                           runat="server"
Text="Password"></asp:Label>
       ID="txtpassword"
         <asp:TextBox
                                       runat="server"
TextMode="Password"></asp:TextBox>
       >
         <asp:Label ID="lblConformPassword" runat="server"
Text="Conform Password"></asp:Label>
       <asp:TextBox ID="txtConformPassword" runat="server"
TextMode="Password"></asp:TextBox>
```

```
<asp:CompareValidator
                                      ID="CompareValidator1"
runat="server"
            ControlToCompare="txtpassword"
ControlToValidate="txtConformPassword"
            ErrorMessage="Password
                                    and
                                         Confrom
                                                  password
Shoukd be sane."></asp:CompareValidator>
        <asp:Label ID="lblEmail" runat="server" Text="E-
mail"></asp:Label>
        <asp:TextBox
                                               ID="txtEmail"
runat="server"></asp:TextBox>
        <asp:RegularExpressionValidator
ID="RegularExpressionValidator1" runat="server"
            ControlToValidate="txtEmail" ErrorMessage="E-mail id
is not in correct formate"
            ValidationExpression="\w+([-+.']\w+)*@\w+([-+.']\w+)
.]\w+)*\.\w+([-.]\w+)*"></asp:RegularExpressionValidator>
```

```
<asp:Button ID="btnSubmit" runat="server" Text="Submit"
             onclick="btnSubmit Click"/>
         >
           <asp:Button ID="btnCancel" runat="server" Text="Cancel"
             onclick="btnCancel Click"/>
         </div>
</asp:Content>
C#:
using System;
using System.Collections;
using System.Configuration;
using System.Data;
using System.Ling;
using System. Web;
using System. Web. Security;
using System.Web.UI;
using System. Web.UI. WebControls;
using System. Web. UI. WebControls. WebParts;
using System. Web. UI. Html Controls;
using System.Xml.Linq;
using System.Data.SqlClient;
using Microsoft. Visual Basic;
namespace Altheyani_Laibrary
  public partial class JoinUs: System.Web.UI.Page
```

```
SqlConnection con;
    SqlDataAdapter da;
    SqlCommand cmd;
    string sqlstatment;
    DataSet ds:
    SqlCommandBuilder cb;
    protected void Page_Load(object sender, EventArgs e)
           = new SqlConnection("user id=sa;password=123;data
      con
source=.;database=ASPClass");
    }
    protected void btnSubmit_Click(object sender, EventArgs e)
      string UserName = txtUserName.Text;
      string Password = txtpassword.Text;
      string ConfornPwd = txtConformPassword.Text;
      string email = txtEmail.Text;
      da = new SqlDataAdapter("select * from member", con);
      ds = new DataSet();
      da.MissingSchemaAction
MissingSchemaAction.AddWithKey;
      da.Fill(ds, "member");
      DataRow dr = ds.Tables[0].NewRow();
      //dr[0] = ;
      dr[1] = UserName;
      dr[2] = Password;
      dr[3] = ConfornPwd;
      dr[4] = email;
      ds.Tables[0].Rows.Add(dr);
      cb = new SqlCommandBuilder(da);
      da.Update(ds, "Member");
```

```
lblMessage.Visible = true;
lblMessage.Text = "Ur Account is Created Successfully";

protected void btnCancel_Click(object sender, EventArgs e)
{
    Response.Redirect("Home.aspx");
}
```

Contact us page code:

```
Page
               Language="C#"
                                MasterPageFile="~/Master1.Master"
AutoEventWireup="true"
                                   CodeBehind="ContactUs.aspx.cs"
Inherits="Altheyani_Laibrary.ContactUs" Title="Untitled Page" %>
                 ID="Content1"
                                      ContentPlaceHolderID="head"
<asp:Content
runat="server">
</asp:Content>
<asp:Content
                                                    ID="Content2"
ContentPlaceHolderID="ContentPlaceHolder1" runat="server">
<div class="floating-element-Center">
  <h3 style="background-color:Blue;">Created By</h3>
    <h4 style="color:Olive;">Thyazan Hasain Hadi Althyaani</h4>
           style="color:Olive;">Yasir
                                        Ali
                                               MMUTANI
                                                              AL-
ANBAKY</h4>
    <h4 style="color:Olive;">Badder</h4>
    <h3 style="background-color:Blue;">Conatct us</h3>
    <h4 style="color:Olive;">TheysonHussan@yahoo.com</h4>
</div>
 </asp:Content>
```

SYSTEM TESTING AND IMPLEMENTATION

8.1 <u>INTRODUCTION</u>

Software testing is a critical element of software quality assurance and represents the ultimate review of specification, design and coding. In fact, testing is the one step in the software engineering process that could be viewed as destructive rather than constructive.

A strategy for software testing integrates software test case design methods into a well-planned series of steps that result in the successful construction of software. Testing is the set of activities that can be planned in advance and conducted systematically. The underlying motivation of program testing is to affirm software quality with methods that can economically and effectively apply to both strategic to both large and small-scale systems.

8.2. STRATEGIC APPROACH TO SOFTWARE TESTING

The software engineering process can be viewed as a spiral. Initially system engineering defines the role of software and leads to software requirement analysis where the information domain, functions, behavior, performance, constraints and validation criteria for software are established. Moving inward along the spiral, we come to design and finally to coding. To develop computer software we spiral in along streamlines that decrease the level of abstraction on each turn.

A strategy for software testing may also be viewed in the context of the spiral. Unit testing begins at the vertex of the spiral and concentrates on each unit of the software as implemented in source code. Testing progress by moving outward along the spiral to integration testing, where the focus is on the design and the construction of the software architecture. Talking another turn on outward on the spiral we encounter validation testing where requirements established as part of software requirements analysis are validated against the software that has been constructed. Finally we arrive at system testing, where the software and other system elements are tested as a whole.



8.3. UNIT TESTING

Unit testing focuses verification effort on the smallest unit of software design, the module. The unit testing we have is white box oriented and some modules the steps are conducted in parallel.

1. WHITE BOX TESTING

This type of testing ensures that

- All independent paths have been exercised at least once
- All logical decisions have been exercised on their true and false sides

- All loops are executed at their boundaries and within their operational bounds
- All internal data structures have been exercised to assure their validity.

To follow the concept of white box testing we have tested each form .we have created independently to verify that Data flow is correct, All conditions are exercised to check their validity, All loops are executed on their boundaries.

2. BASIC PATH TESTING

Established technique of flow graph with Cyclomatic complexity was used to derive test cases for all the functions. The main steps in deriving test cases were:

Use the design of the code and draw correspondent flow graph.

Determine the Cyclomatic complexity of resultant flow graph, using formula:

$$V(G)=E-N+2$$
 or

$$V(G)=P+1$$
 or

V(G)=Number Of Regions

Where V(G) is Cyclomatic complexity,

E is the number of edges,

N is the number of flow graph nodes,

P is the number of predicate nodes.

Determine the basis of set of linearly independent paths.

3. CONDITIONAL TESTING

In this part of the testing each of the conditions were tested to both true and false aspects. And all the resulting paths were tested. So that each path that may be generate on particular condition is traced to uncover any possible errors.

4. DATA FLOW TESTING

This type of testing selects the path of the program according to the location of definition and use of variables. This kind of testing was used only when some local variable were declared. The *definition-use chain* method was used in this type of testing. These were particularly useful in nested statements.

5. LOOP TESTING

In this type of testing all the loops are tested to all the limits possible. The following exercise was adopted for all loops:

All the loops were tested at their limits, just above them and just below them.

All the loops were skipped at least once.

For nested loops test the inner most loop first and then work outwards.

For concatenated loops the values of dependent loops were set with the help of connected loop. Unstructured loops were resolved into nested loops or concatenated loops and tested as above.

Each unit has been separately tested by the development team itself and all the input have been validated.

8.4 TEST CASES

Paste Your Project Test Cases Here

SYSTEM SECURITY

9.1 INTRODUCTION

The protection of computer based resources that includes hardware, software, data, procedures and people against unauthorized use or natural

Disaster is known as System Security.

System Security can be divided into four related issues:

- Security
- Integrity
- Privacy
- Confidentiality

SYSTEM SECURITY refers to the technical innovations and procedures applied to the hardware and operation systems to protect against deliberate or accidental damage from a defined threat.

DATA SECURITY is the protection of data from loss, disclosure, modification and destruction.

SYSTEM INTEGRITY refers to the power functioning of hardware and programs, appropriate physical security and safety against external threats such as eavesdropping and wiretapping.

PRIVACY defines the rights of the user or organizations to determine what information they are willing to share with or accept from others and how the organization can be protected against unwelcome, unfair or excessive dissemination of information about it.

CONFIDENTIALITY is a special status given to sensitive information in a database to minimize the possible invasion of privacy. It is an attribute of information that characterizes its need for protection.

9.3 SECURITY SOFTWARE

System security refers to various validations on data in form of checks and controls to avoid the system from failing. It is always important to ensure that only valid data is entered and only valid operations are performed on the system. The system employees two types of checks and controls:

CLIENT SIDE VALIDATION

Various client side validations are used to ensure on the client side that only valid data is entered. Client side validation saves server time and load to handle invalid data. Some checks imposed are:

- VBScript in used to ensure those required fields are filled with suitable data only. Maximum lengths of the fields of the forms are appropriately defined.
- Forms cannot be submitted without filling up the mandatory data so that manual mistakes of submitting empty fields that are mandatory can be sorted out at the client side to save the server time and load.
- Tab-indexes are set according to the need and taking into account the ease of user while working with the system.

SERVER SIDE VALIDATION

Some checks cannot be applied at client side. Server side checks are necessary to save the system from failing and intimating the user that some invalid operation has been performed or the performed operation is restricted. Some of the server side checks imposed is:

- Server side constraint has been imposed to check for the validity of primary key and foreign key. A primary key value cannot be duplicated. Any attempt to duplicate the primary value results into a message intimating the user about those values through the forms using foreign key can be updated only of the existing foreign key values.
- User is intimating through appropriate messages about the successful operations or exceptions occurring at server side.
- Various Access Control Mechanisms have been built so that one user may not agitate upon another. Access permissions to various types of users are controlled according to the organizational structure. Only permitted users can log on to the system and can have access according to their category. User- name, passwords and permissions are controlled o the server side.
- Using server side validation, constraints on several restricted operations are imposed.

CONCLUSION

It has been a great pleasure for me to work on this exciting and challenging project. This project proved good for me as it provided practical knowledge of not only programming in ASP.NET and C#.NET web based application and no some extent Windows Application and SQL Server, but also about all handling procedure related with "E-Library". It also provides knowledge about the latest technology used in developing web enabled application and client server technology that will be great demand in future. This will provide better opportunities and guidance in future in developing projects independently.

BENEFITS:

The project is identified by the merits of the system offered to the user. The merits of this project are as follows: -

- It's a web-enabled project.
- This project offers user to enter the data through simple and interactive forms. This is very helpful for the client to enter the desired information through so much simplicity.
- The user is mainly more concerned about the validity of the data, whatever he is entering. There are checks on every stages of any new creation, data entry or updation so that the user cannot enter the invalid data, which can create problems at later date.
- Sometimes the user finds in the later stages of using project that he needs to update some of the information that he entered earlier. There are options for him by which he can update the records. Moreover there is restriction for his that he cannot change the primary data field. This keeps the validity of the data to longer extent.

- User is provided the option of monitoring the records he entered earlier. He can see the desired records with the variety of options provided by him.
- From every part of the project the user is provided with the links through framing so that he can go from one option of the project to other as per the requirement. This is bound to be simple and very friendly as per the user is concerned. That is, we can sat that the project is user friendly which is one of the primary concerns of any good project.
- Data storage and retrieval will become faster and easier to maintain because data is stored in a systematic manner and in a single database.
- Decision making process would be greatly enhanced because of faster processing of information since data collection from information available on computer takes much less time then manual system.
- Allocating of sample results becomes much faster because at a time the user can see the records of last years.
- Easier and faster data transfer through latest technology associated with the computer and communication.
- Through these features it will increase the efficiency, accuracy and transparency,

LIMITATIONS:

- The size of the database increases day-by-day, increasing the load on the database back up and data maintenance activity.
- Training for simple computer operations is necessary for the users working on the system.

BIBLIOGRAPHY

• FOR .NET INSTALLATION

www.support.mircosoft.com

• FOR DEPLOYMENT AND PACKING ON SERVER

www.developer.com

www.15seconds.com

• FOR SQL

www.msdn.microsoft.com

FOR ASP.NET

Asp.Net 3.5 Unleashed

www.msdn.microsoft.com/net/quickstart/aspplus/defaul

t.com

www.asp.net

www.fmexpense.com/quickstart/aspplus/default.com

www.asptoday.com

www.aspfree.com

www.4guysfromrolla.com/index.aspx

• Software Engineering (Roger's Pressman)