

## How to solve a problem

Example 1:

Prolog code of proffamily.pl:

name(1,ibrahim).

name(2,alqasem).

name(3,abdullah).

name(4,zainab).

name(5,roqaiyah).

name(6,omkalthom).

name(7,fatemah).

mother(mary, ibrahim).

mother(khadijah,alqasem).

mother(khadijah,abdullah).

mother(khadijah,zainab).

mother(khadijah,roqaiyah).

mother(khadijah,fatemah).

mother(khadijah,omkalthom).

proffamily:-

write('our prophet Mohammad has the following children: '),nl,

write(' 1. ibrahim. '),nl,

write(' 2. alqasem. '),nl,

write(' 3. abdullah. '),nl,

write(' 4. zainab. '),nl,

```
write(' 5. roqaiyah. '),nl,
write(' 6. omkalthom. '),nl,
write(' 7. fatemah. '),nl,
write('Select the child number [1-7] to know his/her mother: '),
read(X),name(X,Y),mother(M,Y),write(M),write(' is the mother of '),
write(Y),nl,
write('Press r/R to repeat or any other key exit: '),
read(CH),askagain(CH).
askagain(CH):-
CH=r -> proffamily;
CH='R'->proffamily;
write('Thank you.').
```

### **Consulting and running:**

?- ['proffamily.pl'].

?- proffamily.

our prophet Mohammad has the following children:

1. ibrahim.
2. alqasem.
3. abdullah.
4. zainab.
5. roqaiyah.
6. omkalthom.
7. fatemah.

Select the child number [1-7] to know his/her mother: 3.

khadijah is the mother of abdullah

Press r/R to repeat or any other key exit: r.

our prophet Mohammad has the following children:

1. ibrahim.
2. alqasem.
3. abdullah.
4. zainab.
5. roqaiah.
6. omkalthom.
7. fatemah.

Select the child number [1-7] to know his/her mother: 5.

khadijah is the mother of roqaiah

Press r/R to repeat or any other key exit: R.

our prophet Mohammad has the following children:

1. ibrahim.
2. alqasem.
3. abdullah.
4. zainab.
5. roqaiah.
6. omkalthom.
7. fatemah.

Select the child number [1-7] to know his/her mother: 7.

khadijah is the mother of fatemah

Press r/R to repeat or any other key exit: x.

Thank you.

true

Example 2:

Prolog code of proffamily1.pl:

proffamily1:-

write('our prophet Mohammad has the following children: '),nl,

write(' 1. ibrahim. '),nl,

write(' 2. alqasem. '),nl,

write(' 3. abdullah. '),nl,

write(' 4. zainab. '),nl,

write(' 5. roqaiah. '),nl,

write(' 6. omkalthom. '),nl,

write(' 7. fatemah. '),nl,

write('Select the child number [1-7] to know his/her mother: '),

read(X),processX(X).

processX(X):-

X=1->write('Mary is the mother of Ibrahim'),processloop;

X=2->write('khadijah is the mother of Alqasem. '),processloop;

X=3->write('khadijah is the mother of Abdullah. '),processloop;

X=4->write('khadijah is the mother of Zainab. '),processloop;

X=5->write('khadijah is the mother of Roqaiah. '),processloop;

X=6->write('khadijah is the mother of Omkalthom. '),processloop;

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X=7->write('khadijah is the mother of Fatemah. '),processloop;
```

```
X<1->proffamily1;
```

```
X>7->proffamily1.
```

processloop:-

```
nl,write('Press r/R to repeat or any other key exit: '),
```

```
read(CH),askagain(CH).
```

askagain(CH):-

```
CH=r -> proffamily1;
```

```
write('Thank you.').
```

### Consulting and running:

```
?- ['proffamily1.pl'].
```

```
% proffamily1.pl compiled 0.00 sec, 84 bytes
```

```
true.
```

```
?- proffamily1.
```

our prophet Mohammad has the following children:

1. ibrahim.
2. alqasem.
3. abdullah.
4. zainab.
5. roqaiyah.
6. omkalthom.
7. fatemah.

Select the child number [1-7] to know his/her mother: 4.

khadijah is the mother of Zainab.Press r/R to repeat or any other key exit: R.

our prophet Mohammad has the following children:

1. ibrahim.
2. alqasem.
3. abdullah.
4. zainab.
5. roqaiah.
6. omkalthom.
7. fatemah.

Select the child number [1-7] to know his/her mother:

Example 3:

prolog code for salat.pl:

salat:-

write('our prayer names are: '),nl,

write(' 1. الفجر. '),nl,

write(' 2. الظهر. '),nl,

write(' 3. العصر. '),nl,

write(' 4. المغرب. '),nl,

write(' 5. العشاء. '),nl,

write('Select the prayer number [1-5] to know more info: '),

read(X),process(X).

process(X):-

X=1->write(' صلاة الفجر ركعتان '),nl,askme;

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```
X=2->write(' صلاة الظهر أربع ركعات '),nl,askme;
```

```
X=3->write(' صلاة العصر أربع ركعات '),nl,askme;
```

```
X=4->write(' صلاة المغرب ثلاث ركعات '),nl,askme;
```

```
X=5->write(' صلاة العشاء أربع ركعات '),nl,askme;
```

```
X<1->salat;
```

```
X>5->salat.
```

askme:-

```
write('Press c/C to repeat or any other key exit: '),read(CH),askagain(CH).
```

askagain(CH):-

```
CH=c -> salat;
```

```
CH='C' ->salat;
```

```
write('Thank you.').
```

### Consulting and running:

5 ?- ['salat.pl'].

Warning: c:/users/nagi/documents/prolog/salat.pl:11:

Redefined static procedure process/1

% salat.pl compiled 0.00 sec, -160 bytes

true.

6 ?- salat.

our prayer names are:

1. الفجر.

2. الظهر.

3. العصر.

5. العشاء.

Select the prayer number [1-5] to know more info: 3.

صلاة العصر أربع ركعات

Press c/C to repeat or any other key exit: c.

our prayer names are:

1. الفجر.

2. الظهر.

3. العصر.

4. المغرب.

5. العشاء.

Select the prayer number [1-5] to know more info: 5.

صلاة العشاء أربع ركعات

Press c/C to repeat or any other key exit: x.

Thank you.

true.