**Question 1:** Write simple fact for following:

a. Ram likes mango.

b.Mohan likes apple.

c. Seema is a girl.

d. Rose is red.

e. John owns gold.

Program: Clauses

likes(ram ,mango).

girl(seema).

red(rose).

likes(bill ,cindy).

owns(john ,gold).

Output: Goal queries

?-likes(ram,What). What= mango

?-likes(Who,cindy). Who= cindy

?-red(What). What= rose

?-owns(Who,What). Who= john What= gold

**Question 2:**

female(pammi).  
female(lizza).  
female(patty).  
female(anny).  
male(jimmy).  
male(bobby).  
male(tomy).  
male(pitter).  
parent(pammi,bobby).  
parent(tomy,bobby).  
parent(tomy,lizza).  
parent(bobby,anny).  
parent(bobby,patty).  
parent(patty,jimmy).  
parent(bobby,pitter).  
parent(pitter,jimmy).  
mother(X,Y):- parent(X,Y),female(X).  
father(X,Y):- parent(X,Y),male(X).  
haschild(X):- parent(X,\_).  
sister(X,Y):- parent(Z,X),parent(Z,Y),female(X),X\==Y.  
brother(X,Y):-parent(Z,X),parent(Z,Y),male(X),X\==Y.

Input:  
parent(X,jimmy).  
mother(X,Y).  
haschild(X).  
sister(X,Y).

**Question 3:**

female(trisha).  
female(joseph).  
male(rahil).  
male(karim).  
male(kabil).  
male(riya).  
parent(rahil,karim).  
parent(rahil,kabil).  
parent(karim,trisha).  
parent(karim,joseph).  
son(X,Y):-male(X) ,parent(Y,X).  
daughter(X, Y):- female(X) ,parent(Y ,X).  
sibling(X, Y):-  
parent(Z, X) ,parent(Z,Y), X \= Y.  
Input:  
son(karim,rahil).  
son(joseph,karim).  
daughter(trisha,kabil).  
daughter(riya,kabir).  
sibling(karim,kabil).