**Lec 4 third class**

Program (7) :- write a prolog program to find the capital of Iraq, Egypt, Jordan, (using rule)

predicates

information( symbol,symbol).

capital(symbol,symbol).

clauses

capital(baghdad,iraq).

capital(amman,jordan).

capital(cairo,egypt).

information (X,Y):- capital(X,Y).

GOAL : information(A,B).

GOAL: information (A,iraq)

Goal: information (cairo,Z).

Program ( 8 ) :- run this program

Predicates

ask\_que(string,string).

clauses

ask\_que (Que,Ans):- write (Que, ‘?’),nl, readln(Ans), nl.

Goal: ask\_que(“what is your name “, Ans).

* **Family Tree**

domains 

X,Y,Z =symbol.

predicates

parent(x,x).

male(x).

female(x).

grandfather(x,x).

grandmother(x,x).

sister(x,x).

brother(x,x).

uncle(x,x).

aunt(x,x).

clauses

parent(bill,jack).

parent(ann,jack).

parent (jack,liza).

parent(jack,jody).

male(bill).

male(jack).

female(ann).

female(liza).

female(jody).

**father (X,Y):**- parent (X,Y), male(X).,

mother(X,Y):- parent (X,Y), female(X).

grandfather(X,Y):- parent (X,**Z**),parent(**Z**,Y),male(X).

grandmother(X,Y):- parent (X,Z),parent(Z,Y),female(X).

sister(X,Y):- parent (Z,X), parent (Z,Y), female (X).

brother(X,Y):- parent (Z,X), parent (Z,Y), male (X).

uncle (X,Y):- brother (X,Z), parent(Z,Y),male(X) .

aunt(X,Y):- sister(X,Z),parent (Z,Y), female(X).