EX.NO : 6

PROLOG

AIM :

To develop a family tree program using PROLOG with all possible facts , rules and queries.

SOURCE CODE:

KNOWLEDGE BASE:

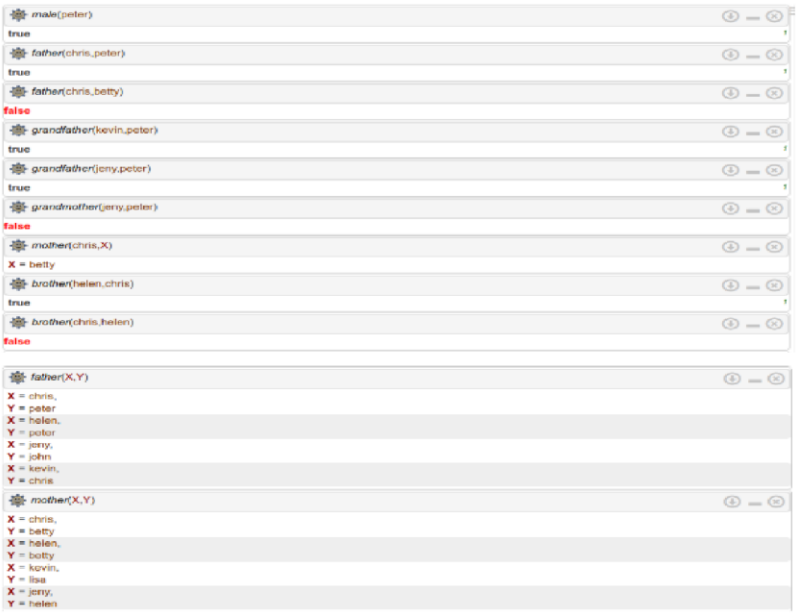
```
/*FACTS :: */
male(peter).
male(john). male(chris).
male(kevin).

female(betty).
female(jeny). female(lisa).
female(helen).

parentOf(chris,peter).
parentOf(chris,betty).
parentOf(helen,peter).
parentOf(helen,betty).
parentOf(kevin,chris).
parentOf(kevin,lisa).
parentOf(jeny,john).
parentOf(jeny,helen).

/*RULES :: */
/* son,parent
* son,grandparent*/

father(X,Y):- male(Y), parentOf(X,Y).

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

grandfather(X,Y):- male(Y),
parentOf(X,Z), parentOf(Z,Y).
```

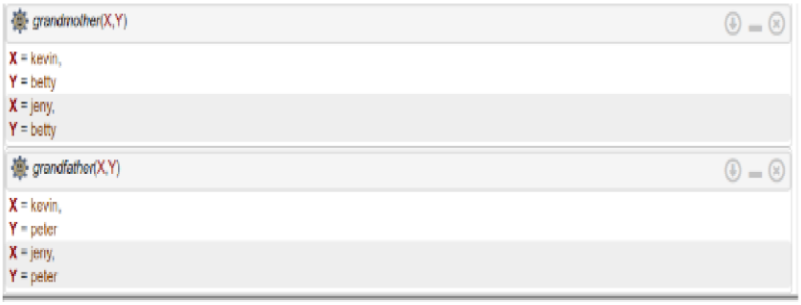
grandmother(X,Y):- female(Y),
parentOf(X,Z), parentOf(Z,Y).

brother(X,Y):- male(Y),
father(X,Z),
father(Y,W), Z==W.

sister(X,Y):- female(Y),
father(X,Z),
father(Y,W), Z==W.

OUTPUT :





RESULT : Thus the above python code is executed successfully and output is verified.