

EX.NO :

DATE :

PROLOG

AIM :

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

SOURCE CODE:

```
1 male(peter).
2 male(john).
3 male(chris).
4 male(kevin).
5
6 female(betty).
7 female(jeny).
8 female(lisa).
9 female(helen).
10
11 parentof(chris,peter).
12 parentof(chris,betty).
13 parentof(helen,peter).
14 parentof(helen,betty).
15 parentof(kevin,chris).
16 parentof(kevin,lisa).
17 parentof(jeny,john).
18 parentof(jeny,helen).
19
20 father(X,Y):- male(Y), parentof(X,Y).
21 mother(X,Y):- female(Y), parentof(X,Y).
22 grandfather(X,Y):- male(Y),parentof(X,Z),parentof(Z,Y).
23 grandmother(X,Y):- female(Y),parentof(X,Z),parentof(Z,Y).
24 brother(X,Y):- male(Y), father(X,Z), father(Y,W),Z==W.
25 sister(X,Y):- female(Y), father(X,Z),father(Y,W),Z==W.
```

OUTPUT :

?- sister(X,Y).

Examples▲ History▲ Solutions▲ ☐ table results Run!

father(X,Y). ⬇ — ✕

X = chris,
Y = peter

Next 10 100 1,000 Stop

mother(X,Y). ⬇ — ✕

X = chris,
Y = betty

Next 10 100 1,000 Stop

sister(X,Y). ⬇ — ✕

X = Y, Y = jeny

Next 10 100 1,000 Stop

RESULT :

Thus the program is successfully executed and output is verified