EX NO: 06
DATE:

PROLOG1.

AIM:

To develop a family tree program using PROLOG1 with all possible facts, rules and Queries.

SOURCECODE:-

```
/* FACTS : :*/
male(peter).
male(John)
male(chris)
male(Kevin)
female(betty)
female(Jeny)
females(lisa)
female(helen)
Parent of(chris, peter)
parent of(chris, betty).
Parent of(helen, peter)
parent of(helen, betty)
Parent of(Kevin, chris)
Parent of(Kevin, lisa)
Parent of(Jeny, John)
Parent of(Jeny, helen).
/* Rules * : : )
/* son:parent
* son grandparent */
father(X, Y) :- male(Y),
Parent of(X, Y).
mother(X, Y) :- female(Y),
Parent(X, Y).
grandfather(X, Y) :- Male(Y),
    Parent of(X, Z),
    Parent of(Z, Y).
```

```
grandmother(X,Y):- female(Y)
    Parent of(X,Z),
    Parent of(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:-

```
male(Peter)
true
father(Cheris,Peter)
true
father(Cheris, betty)
false
mother(Cheris, X)
X = betty
brother(Cheris, helen)
false
```

RESULT:-

Thus Prolog for family tree program using prolog is implemented and executed successfully.