

REGNO.220701055

EX.NO:8

DATE:15.11.24

PROLOG- FAMILY TREE

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.
```

RESULT: Thus the prolog family tree problems are executed successfully.