

**EX.NO:7**

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## **PROLOG- FAMILY TREE**

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

### **CODE:**

```
/*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:**

**? parentof(kevin, X)**

**X=chris**

**? father(X, chris)**

**X=kevin**

**? sister(X, chris)**

**false**