

EX.NO:7

Reg.no:220701044

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 :: */

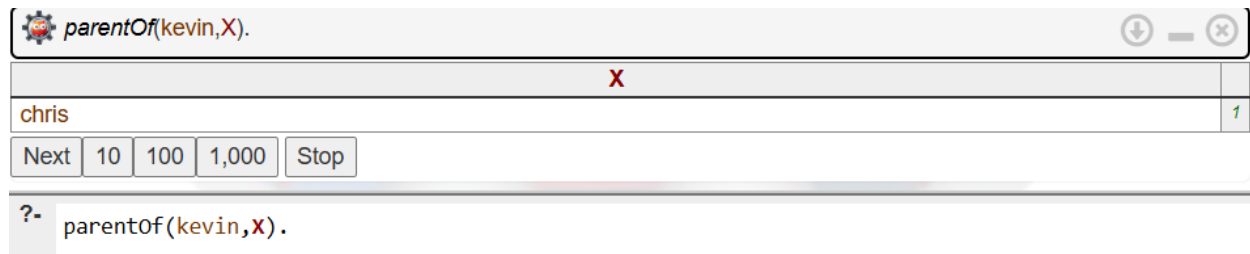
/* son, parent
* son, grandparent */

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)



parentOf(kevin, X).

X

chris	1
-------	---

Next 10 100 1,000 Stop

?- parentOf(kevin, X).

? father(X, chris)

X=kevin

father(X, chris)	
X	
kevin	1
?- father(X, chris)	

? sister(X, chris)

false

sister(X, chris)	
false	
?- sister(X, chris)	