EX.NO: 7 **DATE: 04 - 10 - 2024**

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.
```

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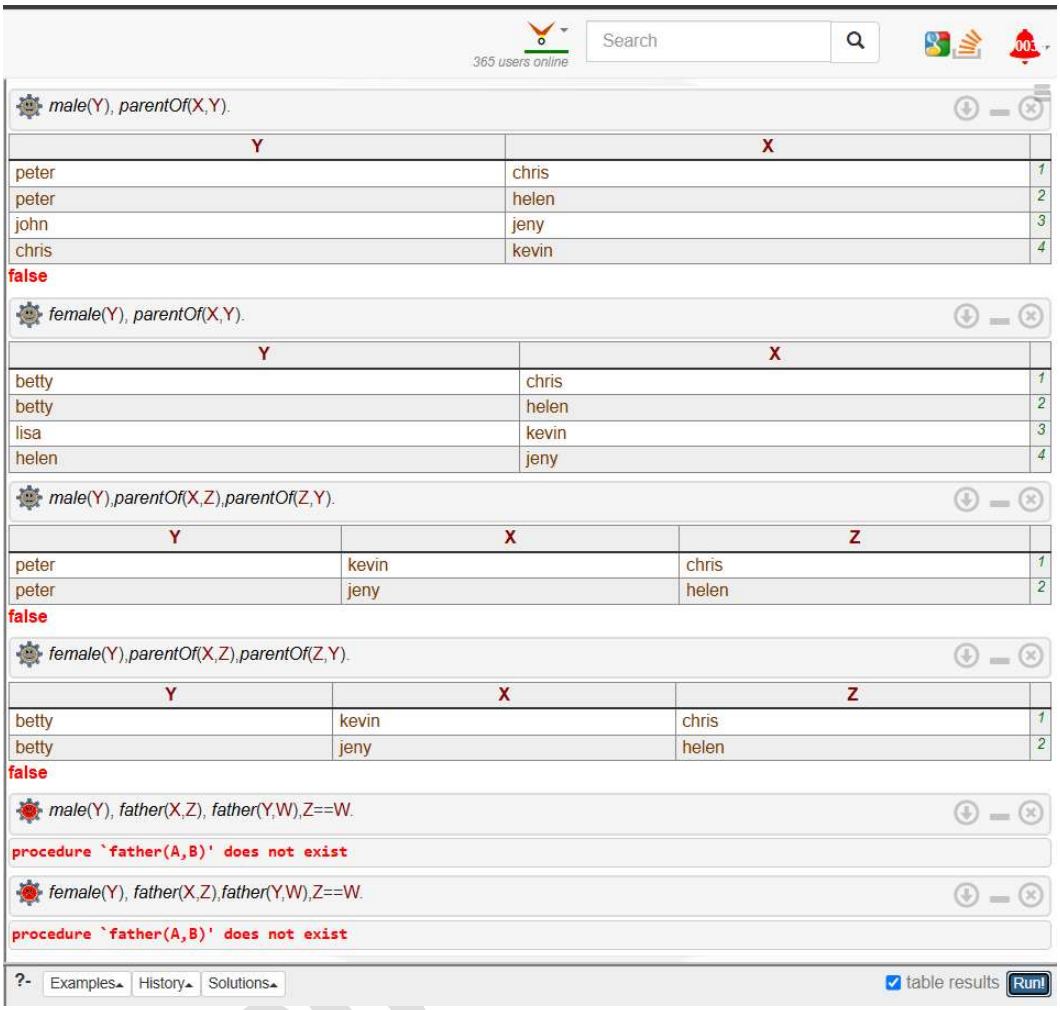
OUTPUT:



RESULT:

Thus, we have developed a family tree program using PROLOG with all possible facts, rules, and queries.