EX.NO: 07 **DATE:**

REG.NO: 220701517

PROLOG- FAMILY TREE

AIM

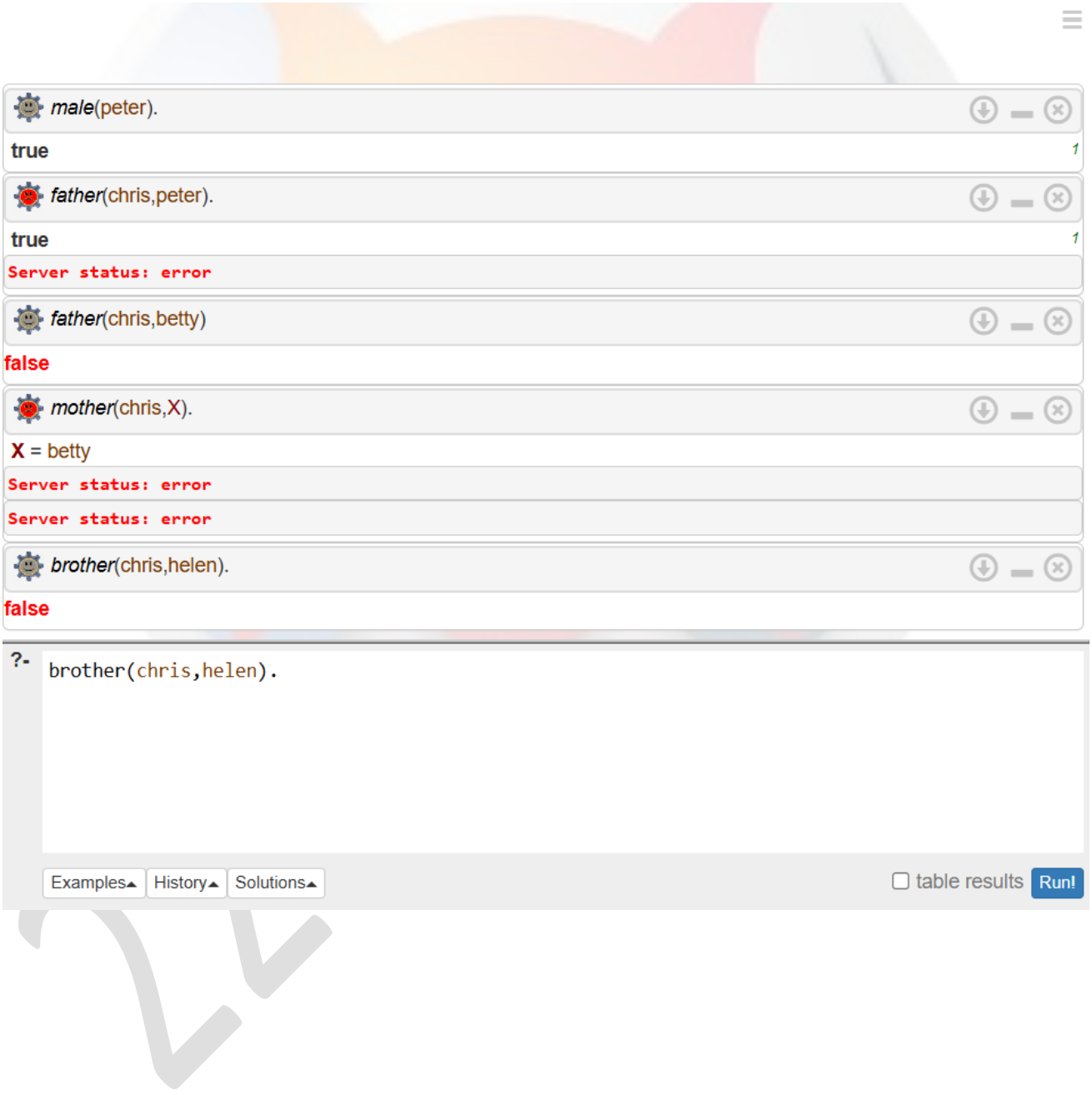
To develop a family tree program using PROLOG with all possible facts, rules, and queries.

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.
```

OUTPUT:



RESULT:

Thus the family tree program using PROLOG with all possible facts, rules, and queries has been implemented successfully.