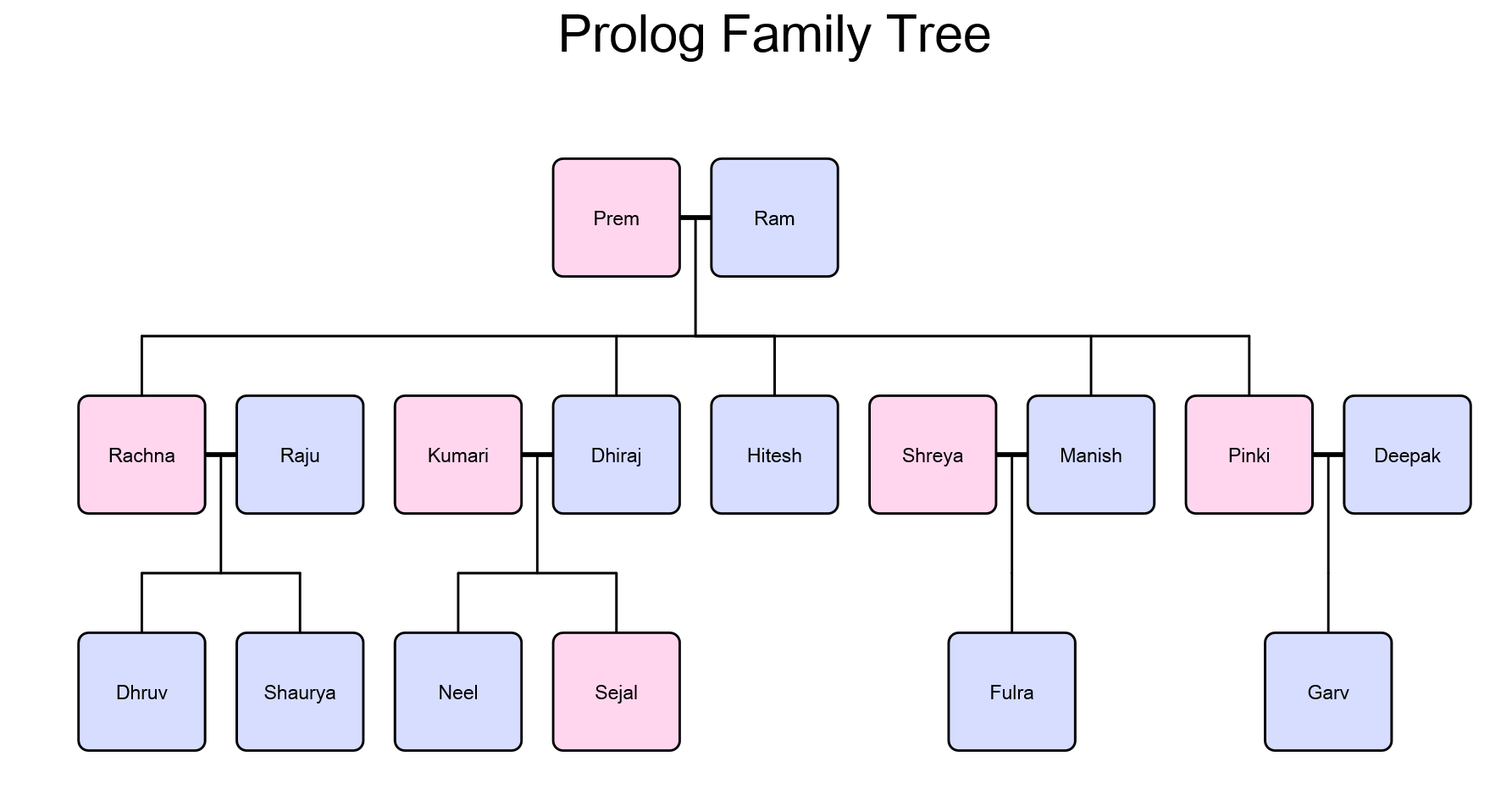


**Grand Parent ->  
  
  
  
  
  
Children and their partners(parents)->  
  
  
  
  
Grandchild->**



**Grand Parent ->  
  
  
  
  
  
  
Children and their partners ->  
  
  
  
  
  
  
Grandchild ->**

In the above diagrams I am showing my two families one is mine and other where my sister **‘rachna’** married to **‘Raju’** so the families are connected with this marriage so we can find out queries q with prolog

**Define Gender :-**

male(manish).

male(hitesh).

male(dhiraj).

male(kashiram).

male(ram).

male(raju).

male(deepak).

male(garv).

male(neel).

male(dhruv).

male(fulra).

male(shaurya).

female(shreya).

female(bai).

female(rachna).

female(pinki).

female(prem).

female(sejal).

female(kumari).

**Define Parent Relation:-**

parent(raju,dhruv).

parent(rachna,dhruv).

parent(rachna,shaurya).

parent(raju,shaurya).

parent(kashiram, raju).

parent(bai, raju).

parent(prem, rachna).

parent(ram, rachna).

parent(manish, fulra).

parent(shreya, fulra).

parent(ram, manish).

parent(prem, manish).

parent(deepak, garv).

parent(pinki, garv).

parent(ram, pinki).

parent(prem, pinki).

parent(dhiraj, sejal).

parent(kumari, sejal).

parent(dhiraj, neel).

parent(kumari, neel).

parent(prem, dhiraj).

parent(ram, dhiraj).

parent(prem, hitesh).

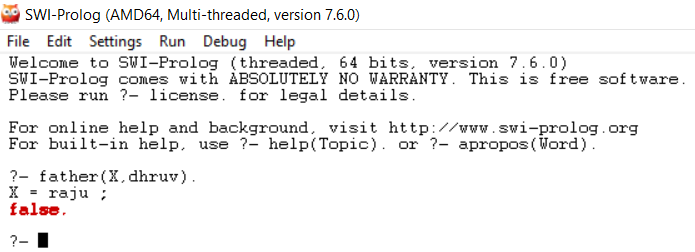
parent(ram, hitesh).

**The tests check for true and false values as well as queries of certain procedures.**

**All these tests return the proper values.**

1 ?- father(X, dhruv). /\* Who is father of ‘dhruv’ \*/

X = raju.



2 ?- father(raju, X). /\* whose father is ‘raju’ \*/

X = dhruv;

X = shaurya.

3 ?- father(raju, dhruv). /\* to check raju is father of dhruv ?\*/

true.

4 ?- father(raju, shaurya). /\* to check raju is father of shaurya?\*/

true.

5 ?- mother(X, dhruv). /\* who is mother of dhruv \*/

X = rachna.

6 ?- mother(rachna, X). /\* to check whose mother is Rachna \*/

X = dhruv;

X = shaurya.

7 ?- mother(rachna, dhruv)./\* to check rachna is mother of dhruv \*/

true.

8 ?- father(raju,garv). /\* to check raju is father of garv?\*/

false.

9 ?- male(dhruv)./\* to check gender\*/

true.

10 ?- female(rachna).

true.

11 ?- parent(X, dhruv). /\* to fund the parents of dhruv \*/

X = raju;

X = rachna.

12 ?- parent(raju, dhruv). /\* to check raju is parent of dhruv \*/

true .

13 ?- married(raju, rachna).

true.

14 ?- married(raju, X). /\* to check raju married to whom? \*/

X = rachna.

15 ?- grandfather\_of(kashiram, dhruv). /\* to check kashiram is grand father of dhruv? \*/

true .

16 ?- grandfather\_of(X, dhruv). /\* to find paternal grand father and maternal grand father \*/

X = kashiram ;

X = ram ;

false.

17 ?- grandfather\_of(ram, X)./\* to check whose grand father is ram \*/

X = dhruv ;

X = shaurya ;

X = fulra ;

X = garv ;

X = sejal ;

X = neel ;

18 ?- grandmother\_of(bai, dhruv). /\* to check kashiram is grand mother of dhruv? \*/

true .

19 ?- grandmother\_of(prem, X). /\* to check whose grand mother is prem \*/

X = dhruv ;

X = shaurya ;

X = fulra ;

X = garv ;

X = sejal ;

X = neel ;

20 ?- grandchild(X, ram)./\* to check who is grand child of ram \*/

X = dhruv ;

X = shaurya ;

X = fulra ;

X = garv ;

X = sejal ;

X = neel ;

false.

21 ?- sibling(rachna, X).

X = manish ;

X = pinki ;

X = dhiraj ;

X = hitesh ;

false.

22 ?- ancestor(ram, X).

X = rachna ;

X = manish ;

X = pinki ;

X = dhiraj ;

X = hitesh ;

X = dhruv ;

X = shaurya ;

X = fulra ;

X = garv ;

X = sejal ;

X = neel ;

false.

23 ?- descendent(dhruv, X).

X = raju ;

X = rachna ;

X = kashiram ;

X = bai ;

X = prem ;

X = ram ;

false.

24 ?- sister\_of(rachna, X)./\* Rachna is sister of whom ?\*/

X = manish ;

X = pinki ;

X = dhiraj ;

X = hitesh ;

false.

25 ?- brother\_of(manish,X). )./\* manish is brother of whom ?\*/

X = rachna ;

X = pinki ;

X = dhiraj ;

X = hitesh ;

false.