Prolog

AIM :

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

SOURCE CODE

```
/* FACTS :: */
male ( peter).
male (john).
male (chris).
male (kevin).

female (betty).
female (jenny).
female (lisa).
female (helen).

parent of (chris, peter).
parent of (chris, betty).
parent of (helen, peter).
parent of (helen, betty).
parent of (kevin, chris).
parent of (kevin, lisa).
parent of (jenny, john).
parent of (jenny, helen).
```

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```prolog
father (x,y):-male (y),
parent of (x,y).

mother (x,y):- female (y),
parent of (x,y).

grandfather (x, y ):- male (y),
parent of (x,z),
parent of (z,y).

grandmother (x,y):-female (y),
parent of (x,z),
parent of (&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

→ male (peter)

true

→ father (chris, peter)

~~true~~ true

→ father (chris, betty)

false

→ grandfather (kevin, peter)

true

→ brother (chris, helen)

false

→ father (x, y)

x = chris,
Y = peter

x = helen,
Y = peter

x = jerry,
Y = john

x = kevin,
Y = chris

RESULT

thus, a family tree program using PROLOG
is successfully executed and the
output is verified.