

Ex: No: 6

Prolog.

Date:

Program code:

male (peter)

male (john)

male (chris)

male (kevin)

female (betty)

female (jerry)

female (lisa)

female (helen)

parentOf (chris , peter)

parentOf (chris , betty)

parent of (helen , peter)

parent of (helen , betty)

parent of (kevin , chris)

parent of (kevin , lisa)

parent of (jerry , john)

parent of (jerry , helen)

father $(x, y) :- \text{male}(y),$

parent of $(x, y).$

mother $(x, y) :- \text{female}(y),$

parent of (x, y)

grandfather $(x, y) :- \text{male}(y)$

parent of $(x, z),$

parent of $(z, y).$

grandmother $(x, y) :- \text{female}(y).$

parent of $(x, z).$

parent of $(z, y).$

brother $(x, y) :- \text{male}(y),$

father $(x, z).$

father $(y, w),$

$z = w.$

sister $(x, y) :- \text{female}(y).$

father $(x, z).$

~~father (x, w)~~

~~$z = w.$~~

output:

```
?- father('chris', 'peter').  
true.  
?- mother('helen', 'peter').  
false.  
?- grandfather('kevin', 'peter').  
true.  
?- grandmother('jeny', 'helen').  
false.  
?- brother('peter', 'betty').  
false.  
?- sister('betty', 'peter').  
false.
```

Result:

Thus the program was successfully executed & the output is verified.

