

Exp 23. Write the prolog program to implement family tree.

```
parent(john, mary).
```

```
parent(john, tom).
```

```
parent(susan, mary).
```

```
parent(susan, tom).
```

```
parent(mary, alice).
```

```
parent(mary, bob).
```

```
parent(paul, alice).
```

```
parent(paul, bob).
```

```
% Rules
```

```
mother(X, Y) :- parent(X, Y), female(X).
```

```
father(X, Y) :- parent(X, Y), male(X).
```

```
grandparent(X, Y) :- parent(X, Z), parent(Z, Y).
```

```
sibling(X, Y) :- parent(Z, X), parent(Z, Y), X \= Y.
```

```
% Gender facts
```

```
male(john).
```

```
male(tom).
```

```
male(paul).
```

```
female(susan).
```

```
female(mary).
```

```
female(alice).
```

```
female(bob).
```

```
?-  
% Updating index for library c:/users/administrator/downloads/swipl/library/  
% Updating index for library c:/users/administrator/downloads/swipl/xpce/prolog/lib/  
?-  
|   father(john, paul).  
false.  
  
?- grandparent(john, alice).  
true ■
```