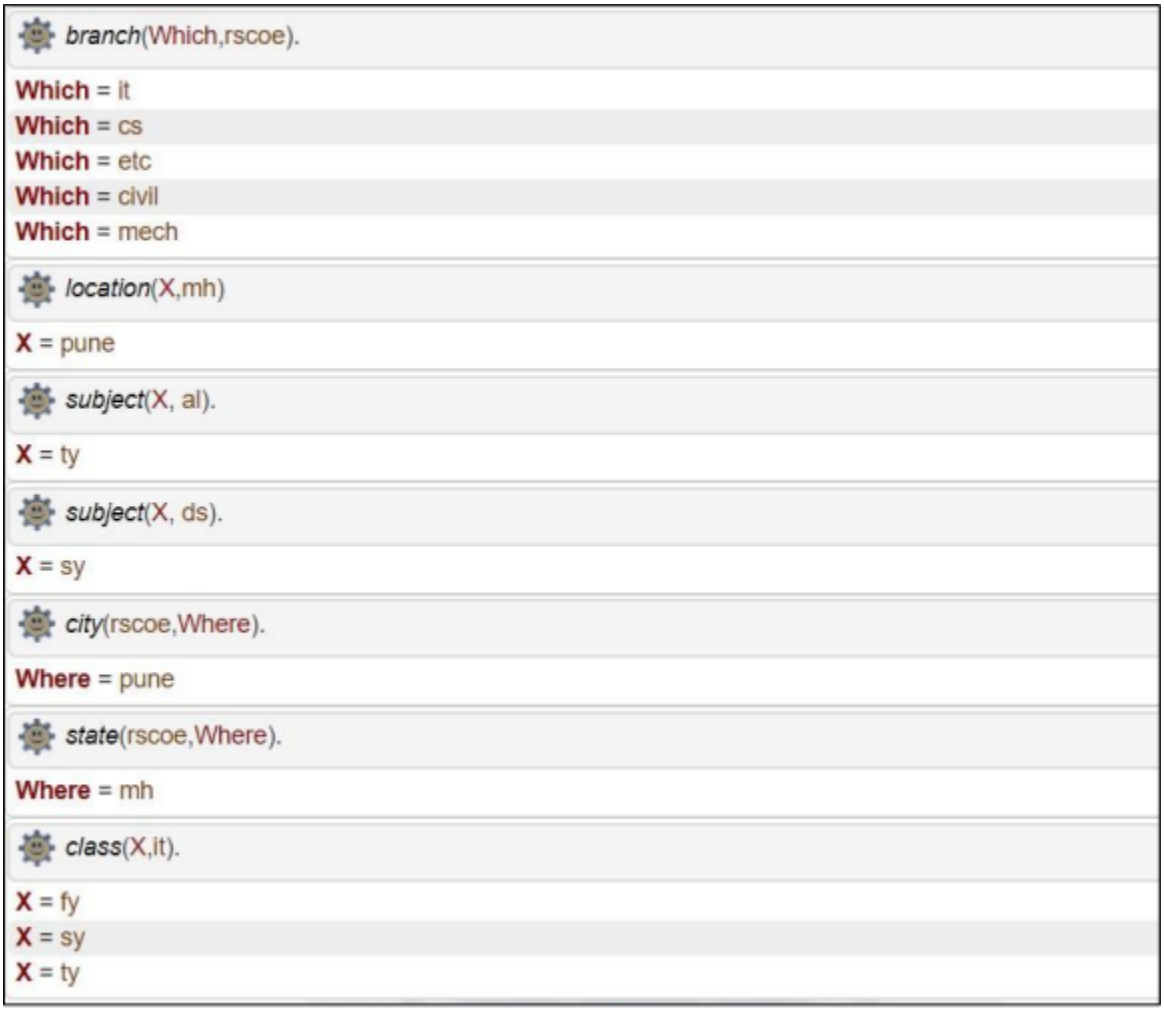
PROGRAM 1: PROLOG PROGRAM FOR COLLEGE KNOWLEDGE

```
class(fy,it).

class(sy,it).

class(ty,it).

college(rscoe).

city(rscoe,pune).

state(rscoe,mh).

branch(it,rscoe).

branch(cs,rscoe).

branch(etc,rscoe).

branch(civil,rscoe).

branch(mech,rscoe).

subject(fy,cpp).

subject(sy, ds).

subject(ty, al).

location(X,Y):-city(C,X), state(C,Y).

learns(X,Y):- class(C,X), subject(C,Y).
```



PROGRAM 2: PROLOG PROGRAM FOR RELATIONS KNOWLEDGE

parent(x,y).

parent(z,x).

child(X,Y):-parent(Y,X).

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

friend(p,y).

friend(X,Y):-friend(Y,X).

likes(p,sing).

likes(y,cricket).

classmates(p,y).

classmates(X,Y):-classmates(Y,X).

PROGRAM 3: PROLOG PROGRAM FOR TEACHER STUDENT KNOWLEDGE

studies(charlie, csc135).

studies(olivia, csc135).

studies(jack, csc131).

studies(arthur, csc134).

teaches(kirke, csc135).

teaches(collins, csc131).

teaches(collins, csc171).

teaches(juniper, csc134).

professor(X, Y) :- teaches(X, C), studies(Y, C).

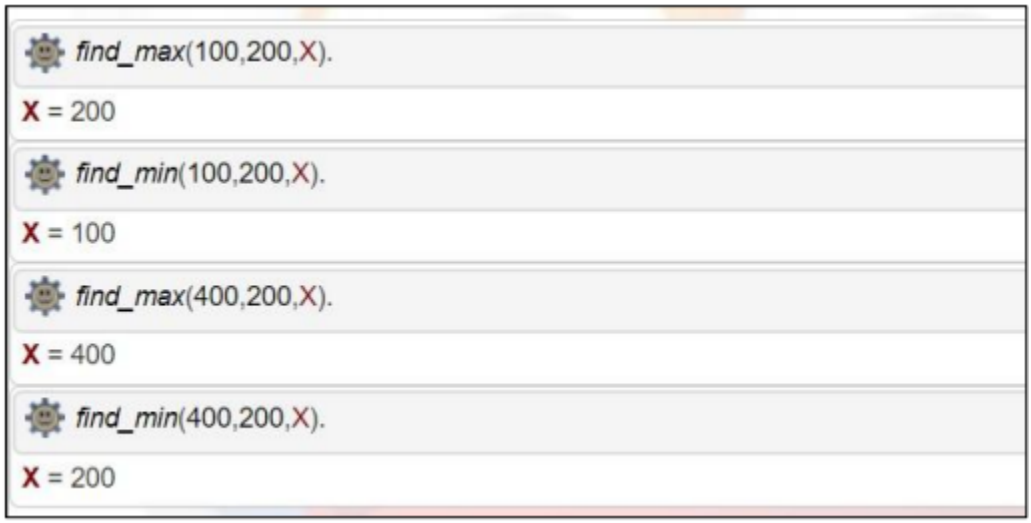
PROGRAM 4: PROLOG PROGRAM FOR MIN MAX

find_max(X,Y,X):-X>Y , ! .

find_max(X,Y,Y):-Y>X.

find_min(X,Y,X):-X<Y,!.

find_min(X,Y,Y):-Y<X.



PROGRAM 5: PROLOG PROGRAM FOR BIKES

```
bike(ktm).
bike(bike1).
bike(bike2).
bike(bike3).
location(bike1,city1).
location(bike1,city2).
location(bike2,city2).
location(bike3,city3).
category(bike1,electric).
category(bike2,petrol).
category(bike3,pertol).
price(bike1,80000).
price(bike2,70000).
price(bike3,60000).
find_max(A,B,A):-price(A,X),price(B,Y),X>=Y, ! .
find_max(A,B,B):-price(A,X),price(B,Y),Y>X.
find_min(A,B,A):-price(A,X),price(B,Y),X<Y, ! .
find_min(A,B,B):-price(A,X),price(B,Y),Y<X.
```

find_max(bike1,bike2,What).

What = bike1

find_max(bike2,bike3,What).

What = bike2

find_max(bike1,bike3,What).

What = bike1

find_min(bike1,bike2,What).

What = bike2

find_min(bike2,bike3,What).

What = bike3

find_min(bike1,bike3,What).

What = bike3

location(bike1,X).

X = city1
X = city2

location(bike2,X).

X = city2

location(bike3,X).

X = city3