

Name : Nupur Suresh Shinde.

Class : TY-IT-A

Roll No : 54

Batch No : B2

PRN No: 12010610

Lab No : 3

Problem Statement : Install Prolog and Run the Knowledge Bases

Knowledge Base 1:

Code:

woman(mia).

woman(jody).

woman(yolanda).

playsAirGuitar(jody).

party.

Output:

```
?-
% c:/Users/nupur/Documents/Prolog/kb1.pl compiled 0.00 sec, 5 clauses
?-
|   woman(mia).
true.

?- playsAirGuitar(jody).
true.

?- woman(john).
false.

?- playsAirGuitar(yolanda).
false.

?- party.
true.

?- rockconcert.
ERROR: Unknown procedure: rockconcert/0 (DWIM could not correct goal)
?- tattoed(jody).
ERROR: Unknown procedure: tattoed/1 (DWIM could not correct goal)
?- ■
```

Knowledge Base 2:

Code:

happy(yolanda).

listens2music(mia).

listens2music(yolanda):-happy(yolanda).

playsAirGuitar(mia):-listens2music(mia).

playsAirGuitar(yolanda):-listens2music(yolanda).

Output:

```
?-  
% c:/Users/nupur/Documents/Prolog/kb2.pl compiled 0.00 sec, 5 clauses  
?- listens2music(yolanda).  
true.  
  
?- playsAirGuitar(yolanda).  
true.  
  
?- happy(mia).  
false.  
  
?- playsAirGuitar(mia).  
true.  
  
?- listens2music(john).  
false.  
  
?- listens2music(mia).  
true.  
  
?- ■
```

Knowledge Base 3:

Code:

happy(vincent).

listens2music(butch).

playsAirGuitar(vincent):-listens2music(vincent),happy(vincent).

playsAirGuitar(butch):-happy(butch);listens2music(butch).

Output:

```
?-  
% c:/Users/nupur/Documents/Prolog/kb3.pl compiled 0.00 sec, 4 clauses  
?- playsAirGuitar(butch).  
true.  
  
?- happy(butch).  
false.  
  
?- listens2music(vincent).  
false.  
  
?- playsAirGuitar(vincent).  
false.  
  
?- happy(vincent).  
true.  
  
?- ■
```

Knowledge Base 4:

Code:

woman(mia).

woman(jody).

woman(yolanda).

loves(vincent,mia).

loves(marsellus,mia).

loves(pumpkin,honey_bunny).

loves(honey_bunny,pumpkin).

Output:

```
?-  
% c:/Users/nupur/Documents/Prolog/kb4.pl compiled 0.00 sec, 7 clauses  
?- woman(X).  
X = mia ;  
X = jody ;  
X = yolanda.  
  
?- loves(pumpkin,mia).  
false.  
  
?- loves(mia,vincent).  
false.  
  
?- loves(vincent,mia).  
true.  
  
?- loves(honey_bunny,pumpkin).  
true.  
  
?- loves(pumpkin,honey_bunny).  
true.  
  
?- loves(marsellus,X),woman(X).  
X = mia.  
  
?- loves(vincent,X),woman(X).  
X = mia.  
  
?- loves(pumpkin,X),woman(X).  
false.  
  
?- ■
```

Knowledge Base 5:

Code:

loves(vincent,mia).

loves(marsellus,mia).

loves(mia,john).

loves(jody,vincent).

loves(pumpkin,honey_bunny).

loves(honey_bunny,pumpkin).

jealous(X,Y):-loves(X,Z),loves(Z,Y).

Output:

```
?-  
% c:/Users/nupur/Documents/Prolog/kb5.pl compiled 0.00 sec, 6 clauses  
?- jealous(vincent,X).  
X = john.  
  
?- jealous(marsellus,X).  
X = john.  
  
?- jealous(pumpkin,X).  
X = pumpkin.  
  
?- loves(mia,vincent).  
false.  
  
?- loves(jody,vincent).  
false.  
  
?- ■
```