EX.NO:6 **DATE:4/9/2024**

Reg.no:220701057

INTRODUCTION TO PROLOG

AIM: To learn PROLOG terminologies and write basic programs**.**

CODE:

KB1:

```
woman(mia).

woman(jody).

woman(yolanda).

playsAirGuitar(jody).

party.

Query 1: ?-woman(mia).

Query 2: ?-playsAirGuitar(mia).

Query 3: ?-party.

Query 4: ?-concert.
```

OUTPUT: -

```
?- woman(mia).
true.

?- playsAirGuitar(mia).
false.

?- party.
true.
```

KB2:

```
happy(yolanda).
```

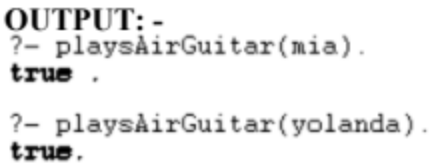
listens2music(mia).

Listens2music(yolanda):-happy(yolanda).

playsAirGuitar(mia):-listens2music(mia).

playsAirGuitar(Yolanda):-listens2music(yolanda).

OUTPUT: -



KB3:

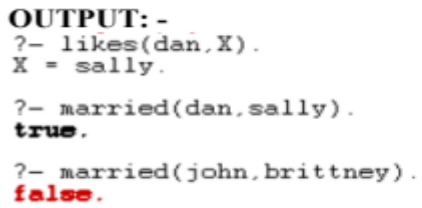
likes(dan,sally).

likes(sally,dan).

likes(john,brittney).

married(X,Y) :- likes(X,Y) , likes(Y,X).

friends(X,Y) :- likes(X,Y) ; likes(Y,X).



KB4:

food(burger).

food(sandwich).

food(pizza).

lunch(sandwich).

dinner(pizza).

meal(X):

-food(X).

OUTPUT:

```
?-
|    food(pizza).
true.

?- meal(X),lunch(X).
X = sandwich ;

?- dinner(sandwich).
false.

?-
```

KB5:

owns(jack,car(bmw)).

owns(john,car(chevy)).

owns(olivia,car(civic)).

owns(jane,car(chevy)).

sedan(car(bmw)).

sedan(car(civic)).

truck(car(chevy)).

OUTPUT:

```
?-
|    owns(john,X).
X = car(chevy).

?- owns(john,_).
true.

?- owns(Who,car(chevy)).
Who = john ;

?- owns(jane,X),sedan(X).
false.

?- owns(jane,X),truck(X).
X = car(chevy).
```