

EX.NO:6

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INTRODUCTION TO PROLOG

AIM: To learn PROLOG terminologies and write basic programs.

CODE:

KB1:

woman(mia).

woman(jody).

woman(yolanda).

playsAirGuitar(jody).

party.

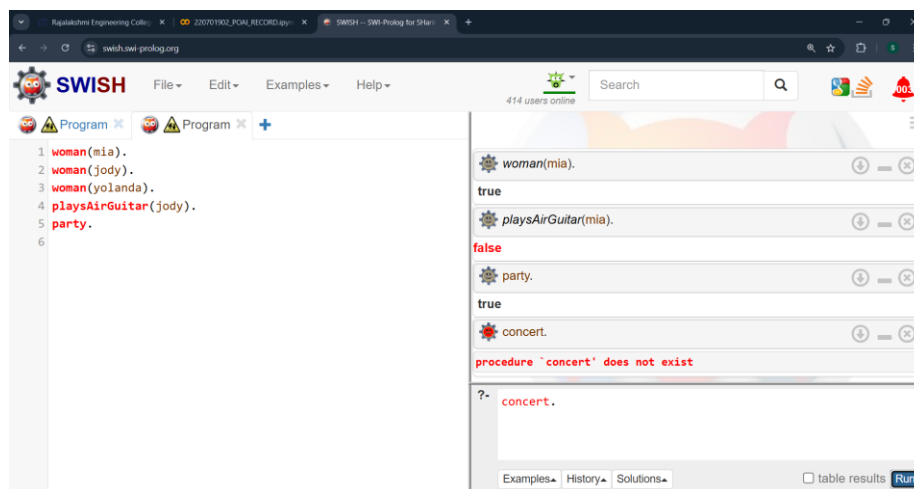
Query 1: ?-woman(mia).

Query 2: ?-playsAirGuitar(mia).

Query 3: ?-party.

Query 4: ?-concert.

OUTPUT:



KB2:

happy(yolanda).

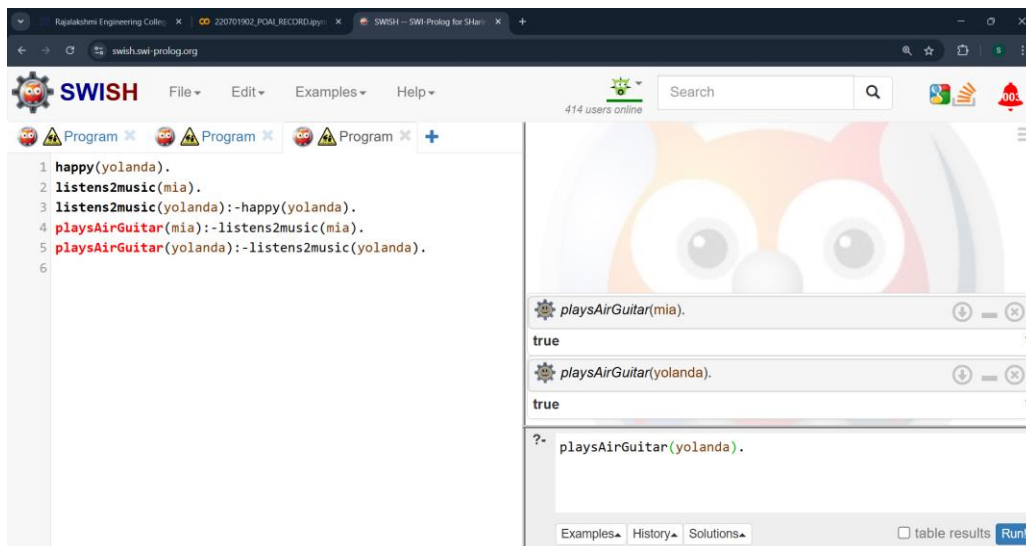
listens2music(mia).

Listens2music(yolanda):-happy(yolanda).

playsAirGuitar(mia):-listens2music(mia).

playsAirGuitar(Yolanda):-listens2music(yolanda).

OUTPUT: -



KB3:

likes(dan,sally).

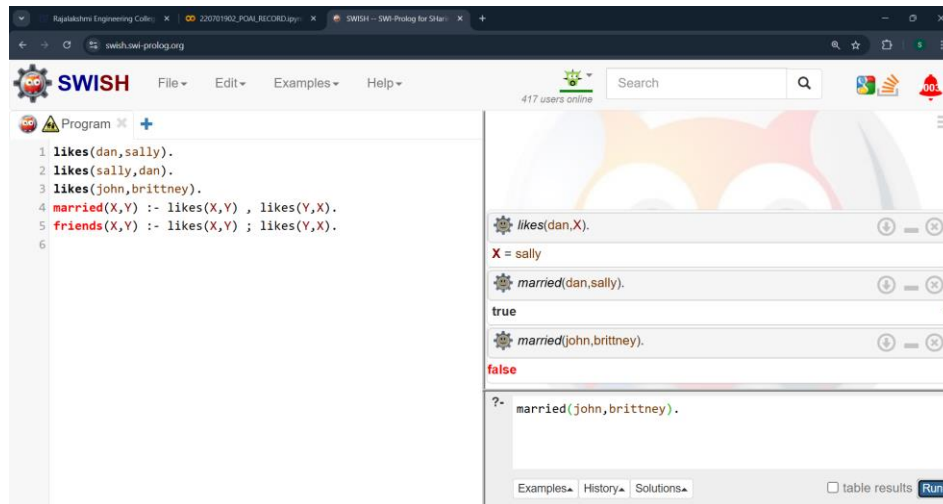
likes(sally,dan).

likes(john,brittney).

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

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

OUTPUT:



KB4:

`food(burger).`

`food(sandwich).`

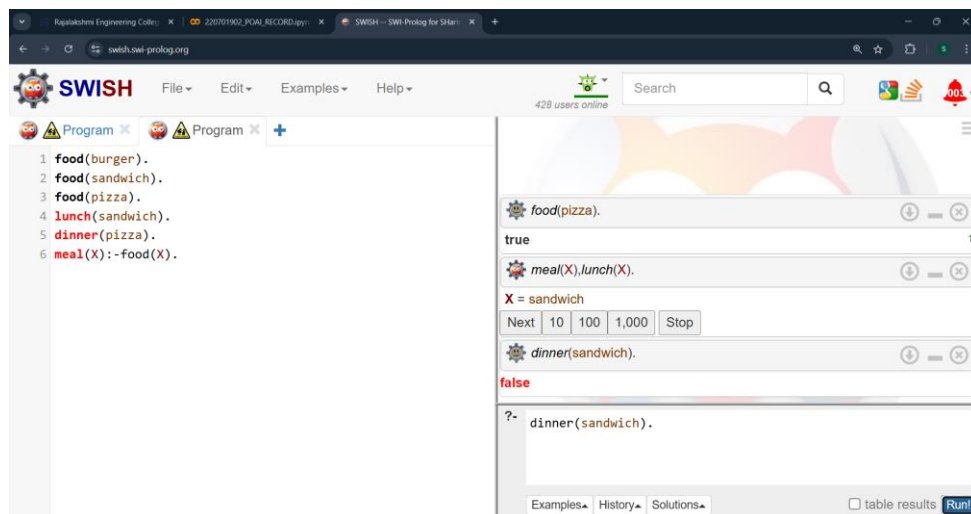
`food(pizza).`

`lunch(sandwich).`

`dinner(pizza).`

`meal(X) :- food(X).`

OUTPUT:



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:

The screenshot shows the SWISH Prolog IDE interface. On the left, the Prolog program is loaded in a text editor:

```
1 owns(jack,car(bmw)).  
2 owns(john,car(chevy)).  
3 owns(olivia,car(civic)).  
4 owns(jane,car(chevy)).  
5 sedan(car(bmw)).  
6 sedan(car(civic)).  
7 truck(car(chevy)).  
8
```

On the right, the execution results are displayed in a list of queries and their answers:

- Query: `owns(john,X).` Answer: `X = car(chevy)`
- Query: `owns(john,_).` Answer: `true`
- Query: `owns(Who,car(chevy)).` Answer: `Who = john`
- Query: `owns(jane,X),sedan(X).` Answer: `false`
- Query: `owns(jane,X),truck(X).` Answer: `X = car(chevy)`
- Query: `?- owns(jane,X),truck(X).` (The result area is empty for this query)

At the bottom right, there are buttons for "Examples", "History", "Solutions", and a "Run" button.