EX.NO:6   **DATE:30/10/2024**

<div align="center">

INTRODUCTION TO PROLOG

</div>

AIM:

To learn PROLOG terminologies and write basic programs.

TERMINOLOGIES:

1.Atomic Terms: -

Atomic terms are usually strings made up of lower- and uppercase letters, digits, and the underscore, starting with a lowercase letter.
Ex: dog ,ab_c_321

2. Variables: -

Variables are strings of letters, digits, and the underscore, starting with a capital letter or an underscore.
Ex: Dog Apple_420

3. Compound Terms: -

Compound terms are made up of a PROLOG atom and a number of arguments (PROLOG terms, i.e., atoms, numbers, variables, or other compound terms) enclosed in parentheses and separated by commas.
Ex: is_bigger(elephant,X) f(g(X,_),7)

4. Facts: -

A fact is a predicate followed by a dot.
Ex: bigger_animal(whale). life_is_beautiful.

5.Rules: -

A rule consists of a head (a predicate) and a body (a sequence of predicates separated by commas). Ex: is_smaller(X,Y):-
is_bigger(Y,X).
    aunt(Aunt,Child):-sister(Aunt,Parent),parent(Parent,Child).

SOURCE CODE:

KB1:

woman(mia). woman(jody).
woman(yolanda).
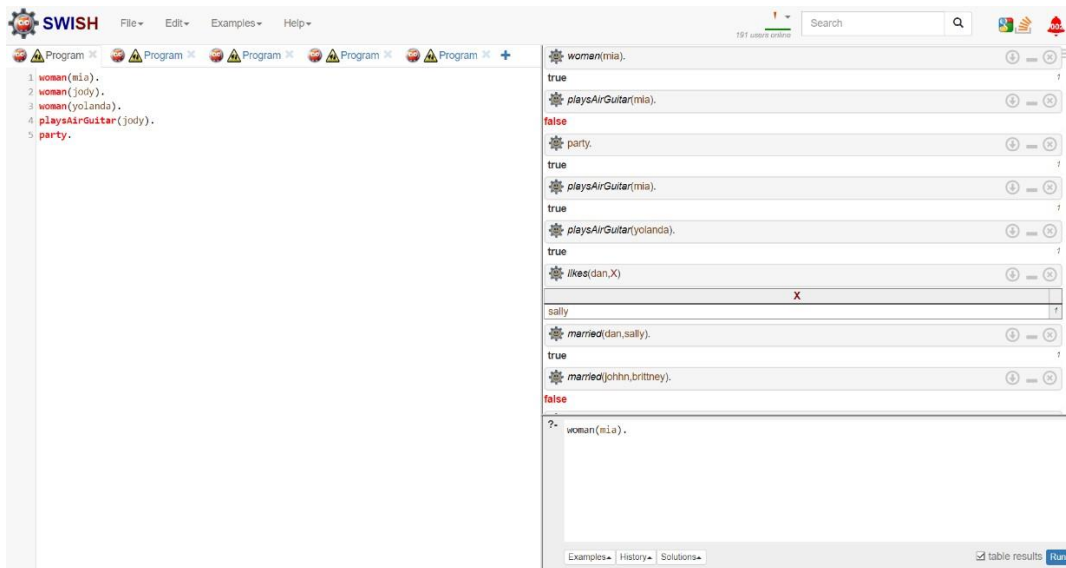playsAirGuitar(jody). party.

Query 1: ?-woman(mia).
Query 2: ?-playsAirGuitar(mia).
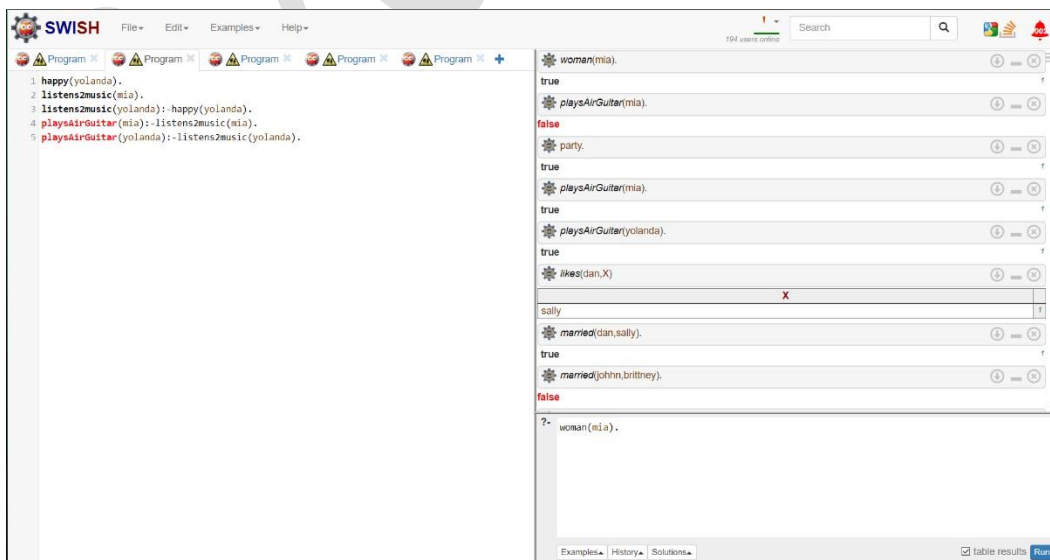Query 3: ?-party.
Query 4: ?-concert.

OUTPUT:

KB2: happy(yolanda).
listens2music(mia).
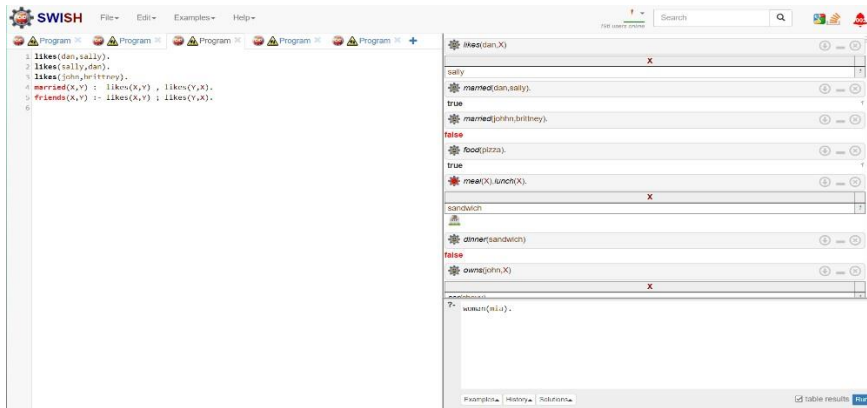Listens2music(yolanda):-happy(yolanda). playsAirGuitar(mia):-
listens2music(mia). playsAirGuitar(Yolanda):-listens2music(yolanda).

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:

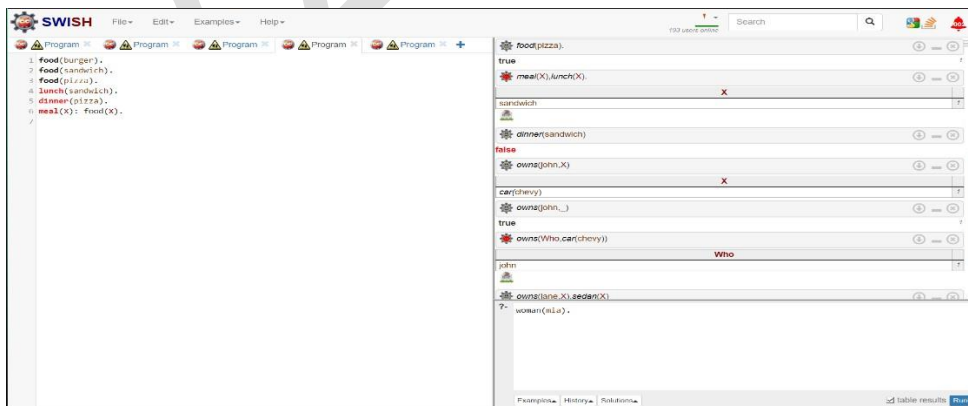**KB4:** food(burger).

food(sandwich).

food(pizza).

lunch(sandwich).

dinner(pizza).

meal(X): -food(X).

OUTPUT:

KB5:

Reg.no:220701030
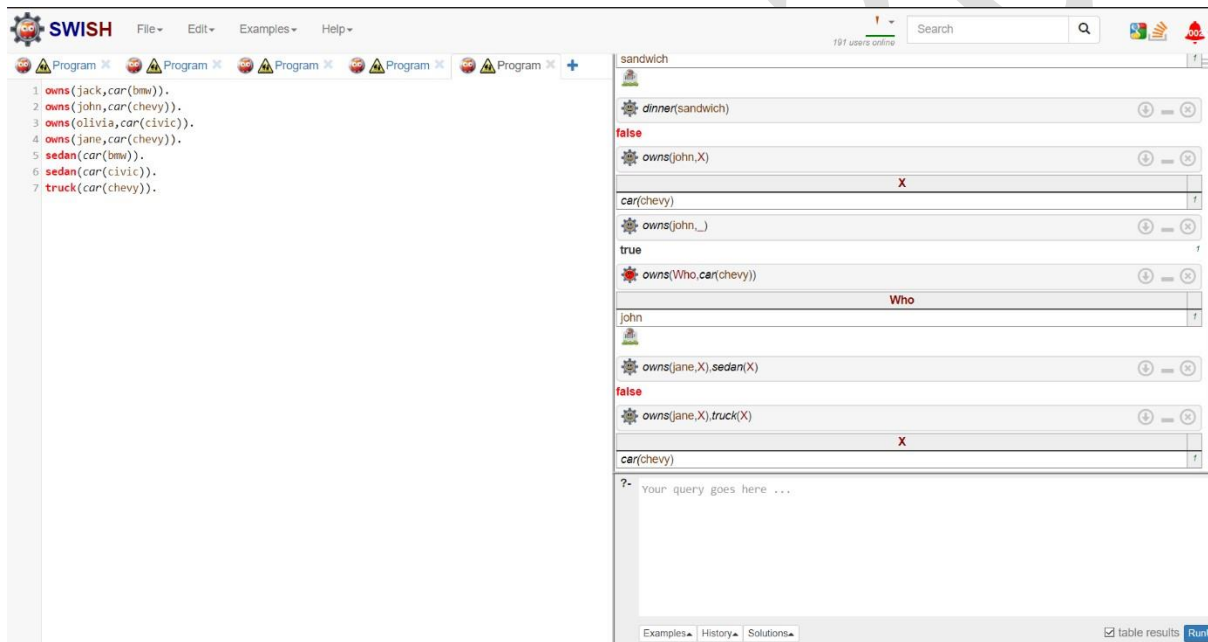
owns(jack,car(bmw)).

owns(john,car(chevy)).

owns(olivia,car(civic)).

owns(jane,car(chevy)).

sedan(car(bmw)). sedan(car(civic)).

truck(car(chevy)).

OUTPUT:

RESULT:

Thus, the basic prolog programs have been implemented successfully.