

EX.NO: 07**INTRODUCTION TO PROLOG****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 comma)

CODE:

**SWISH** File Edit Examples Help
Program +
1 likes(john,brittney).
2 likes(dan,sally).
3 likes(sally,dan).
4 married(X,Y) :- likes(X,Y) , likes(Y,X).
5 friends(X,Y) :- likes(X,Y) ; likes(Y,X).
6

OUTPUT:

GIVING QUERY:

?- friends(X,Y).

Examples History Solutions

☐ table results **Run!**

The screenshot displays a Prolog interpreter window with three separate query sessions, each in a distinct panel. Each panel includes a gear icon for settings, a close button, and a scroll bar on the right. The first panel shows the query `likes(john,Y).` with the result `Y = brittney`. The second panel shows the query `likes(Y,brittney).` with the result `Y = john`. The third panel shows the query `married(X,Y).` with results `X = dan,` and `Y = sally`. Below each query result is a control bar with buttons for 'Next', '10', '100', '1,000', and 'Stop'. The fourth panel shows the query `friends(X,Y).` with results `X = dan,` and `Y = sally`. The fifth panel shows the query `friends(X,Y).` with results `X = john,` and `Y = brittney`. Each of these two panels also has the same control bar with 'Next', '10', '100', '1,000', and 'Stop' buttons.

RESULT:

Thus, the implementing of PROLOG terminologies is successfully executed and the output is verified.