

EX.NO: 7

DATE:

INTRODUCTION TO PROLOG

AIM

To learn PROLOG terminologies and write basic programs.

TERMINOLOGIES

- 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

- Variables: -

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

Ex:

Dog
Apple_420

- 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)

- Facts: -

- fact is a predicate followed by a dot.

Ex:

bigger_animal(whale).
life_is_beautiful.


- Rules: -

- 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).


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).


OUTPUT: -

?- friends(X,Y).


Examples History Solutions ☐ table results Run

 likes(john,Y).

Y = brittney


 likes(Y,brittney).

Y = john

 married(X,Y).


X = dan,
Y = sally

Next 10 100 1,000 Stop

 friends(X,Y).

X = dan,
Y = sally

Next 10 100 1,000 Stop

 friends(X,Y).

X = john,
Y = brittney

Next 10 100 1,000 Stop

RESULT:

Thus the program is successfully executed and output is verified