

EXP NO: 1 - INTRODUCTION TO PROLOG

AIM :

To learn prolog terminologies and write basic programs

ALGORITHM :

KB1 :

- 1) Define facts for people using women and actions (using play, sing, guitar).
- 2) Define a standalone fact for party
- 3) Use queries to check if specific facts exist or return true/false
- 4) Query undefined facts like concert to verify if they are false.

KB2 :

- 1) Define initial facts for happiness and music listening
- 2) Define rules to infer new facts based on existing ones
- 3) Use rules to deduce further relationships.
- 4) Run queries to check inferred relationships.

KB3 :

- 1) Define like relationships between individuals
- 2) Define married (x,y) if both x and y like each other
- 3) Define friends (x,y) if x likes y or y likes x.

CODE:

KB1:

/* FACTS */

woman (mia)

woman (jody)

woman (yolande)

play Air Guitar (jody)

party.

KB2:

/* FACTS */

happy (yolande)

listen2music (mia)

/* RULES */

listen2music (yolande) :- happy (yolande)

plays Air Guitar (mia) :- listen2music (mia)

plays Air Guitar (yolande) :- listen2music (yolande)

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:

KB1:

?- woman(mia)

true

?- playsAirGuitar(mia)

false

?- party

true

KB2:

?- playsAirGuitar(mia)

true

?- playsAirGuitar(ydonda)

true

KB-3:

?- likes(dan, x)?

x = sally

?- married(dan, sally)

true

?- married(bri john, britney)

false.

RESULT:

thus 'basic' programs of prolog is successfully executed
and output is verified