

**Vivekanand Education Society's Institute of Technology**  
**Department of Computer Engineering**



**Subject: AI**

**Class :- CMPN**

**Semester:-6**

**Div :- D12A**

Roll No: 08	Name: Varnit Batheja		
Exp No: 07	Title: Implement the knowledge representation and create a knowledge base for the chosen Problem Statement as done in lab 1 applying FOL using PROLOG (Mini-Project)		
DOP:	22-03-22	DOS:	08-04-22
GRADE:		LAB OUTCOMES:	SIGNATURE:

# Input Code

```
face_recognise :- hypothesize(Face),
                  write(Face),
                  nl,
                  undo.

hypothesize(bob) :- bob,!.
hypothesize(sheldon) :- sheldon,!.
hypothesize(melissa) :- melissa,!.
hypothesize(sylvia) :- sylvia,!.
hypothesize(eru) :- eru,!.

bob :- verify(beard),
      verify(adam_apple).

sheldon :- verify(long_hair),
           verify(fair_skin),
           verify(moustache).

melissa :- verify(long_hair),
           verify(fair_skin),
           verify(lipstick).

sylvia :- verify(long_hair),
          verify(doe_eyes),
          verify(blush_cheeks).

eru :- verify(long_hair),
       verify(fair_skin),
       verify(full_lips),
       verify(doe_eyes),
       verify(blush_cheeks).

ask(Question) :-
    write('Does the person have any of the following attributes? '),
    write(Question),
    write('? '),
    read(Response),
    nl,
    (
        (Response == yes ; Response == y)
        ->
            assertz(yes(Question)) ;
            assertz(no(Question)),fail
    ).
:- dynamic(yes/1,no/1).

verify(S) :-
    (
        yes(S)
        ->
            true ;
    )
```

```
        no(S)
        ->
        fail ;
        ask(S)
    )
).

undo:- retract(yes(_)),fail.
undo:- retract(no(_)),fail.
undo.
```

## Output

---

File Edit Terminal Prolog Help

GNU Prolog 1.5.0 (64 bits)

Compiled Jul 8 2021, 12:22:53 with gcc

Copyright (C) 1999-2021 Daniel Diaz

| ?- change\_directory('D:/VESIT/SEM VI/Artificial Intelligence/Experiment 7').

yes

| ?- [face].

compiling D:/VESIT/SEM VI/Artificial Intelligence/Experiment 7/face.pl for byte code

D:/VESIT/SEM VI/Artificial Intelligence/Experiment 7/face.pl compiled, 61 lines read

yes

| ?- face\_recognise.

Does the person have any of the following attributes? beard? y.

Does the person have any of the following attributes? adam\_apple? y.

bob

yes

| ?- face\_recognise.

Does the person have any of the following attributes? beard? n.

Does the person have any of the following attributes? long\_hair? y.

Does the person have any of the following attributes? fair\_skin? y.

Does the person have any of the following attributes? moustache? n.

Does the person have any of the following attributes? lipstick? n.

Does the person have any of the following attributes? doe\_eyes? y.

Does the person have any of the following attributes? blush\_cheeks? y.

sylvia

(15 ms) yes

| ?- |