

## **Experiment No. 2(A)**

**Objective:** Write simple fact for the following:

- a. Ram likes mango.
- b. Seema is a girl.
- c. Bill likes Cindy.
- d. Rose is red.
- e. John owns gold.

**APPARATUS USED:** SWI-PROLOG 9.0.4

**Program:**

In Prolog, the format for expressing facts is generally predicate(term1, term2,..., termN).

where predicate is the name of the relation, and term1, term2, involved in the relation. Each term can be a variable, an atom, or a compound term.

**CODE:**

Create a file 'facts.pl' and write the following facts in it:

```
likes(ram,mango) .  
is_a(seema,girl) .  
likes(bill,cindy) .  
is_color(rose,red) .  
owns(john,gold) .
```

Now open SWI-Prolog and consult 'facts.pl' and type in your queries.

## **OUTPUT:**

```
?- consult('expt.pl').
Warning: c:/users/dell/documents/prolog/expt.pl:3:
Warning:   Clauses of likes/2 are not together in the source-file
Warning:   Earlier definition at c:/users/dell/documents/prolog/expt1.pl:1
Warning:   Current predicate: is_a/2
Warning:   Use :- disjointlikes/2. to suppress this message
true.

?- likes(A,B)
|
|
A = ram,
B = mango ,

?- likes(A,cindy).
A = bill.

?- owns(John,B).
John = john,
B = gold.

?- ■
```

**Outcome:** Student will understand how to write simple facts using prolog.

## **Experiment No. 2(B)**

**Objective:** Write simple fact for the following:

- ☐ Sachin likes cricket
- ☐ Saurav likes cricket
- ☐ Raj likes Football
- ☐ Karan likes Basketball
- ☐ Indira likes Chess
- ☐ Parth likes whatever Saurav likes

Also write code for following Queries:

- ☐ Display list of all player with games they like
- ☐ Find name of all player who like cricket
- ☐ Check whether Raj likes cricket or not
- ☐ Display names of player who like any game except cricket

**APPARATUS USED:** SWI-PROLOG 9.0.4

**CODE:**

```
likes(sachin,cricket) .  
likes(raj,football) .  
likes(saurav,cricket) .  
likes(karan,basketball) .  
likes(indra,chess) .  
likes(parth,Y):-likes(saurav,Y) .
```

## OUTPUT:

File Edit Settings Run Debug Help

Welcome to SWI-Prolog (threaded, 64 bits, version 9.0.4)  
SWI-Prolog comes with ABSOLUTELY NO WARRANTY. This is free software.  
Please run `?- license.` for legal details.

For online help and background, visit <https://www.swi-prolog.org>  
For built-in help, use `?- help(Topic).` or `?- apropos(Word).`

`?- likes(X,Y).`

`X = sachin,`

`Y = cricket ;`

`X = raj,`

`Y = football ;`

`X = saurav,`

`Y = cricket ;`

`X = karan,`

`Y = basketball ;`

`X = indra,`

`Y = chess ;`

`X = parth,`

`Y = cricket.`

`?- likes(X,cricket).`

`X = sachin ;`

`X = saurav ;`

`X = parth.`

`?- likes(raj,cricket).`

**false.**

`?- likes(X,Y),not(Y=cricket).`

`X = raj,`

`Y = football ;`

`X = karan,`

`Y = basketball ;`

`X = indra,`

`Y = chess ;`

**false.**

`?- █`

**Outcome:** Student will understand how to write simple facts using prolog.