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 :- discontiguous likes/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.