Write the prolog program for Medical Diagnosis

AIM

To write a Prolog program to diagnose a disease based on the symptoms provided by the user.

ALGORITHM

1. Start the program.

2. Define disease rules with their associated symptoms using disease(Name) :- symptom1, symptom2, ...

3. Enter the patient's symptoms as facts using symptom(Name).

4. Query Prolog with disease(X). to find which disease matches the entered symptoms.

5. Prolog checks each disease rule against the given symptoms.

6. If all symptoms of a disease are present, that disease is identified.

7. Stop.

```prolog
% Facts: symptoms of diseases
disease(flu) :- symptom(fever), symptom(cough), symptom(headache).
disease(cold) :- symptom(cough), symptom(sneezing).
disease(malaria) :- symptom(fever), symptom(chills), symptom(sweating).
disease(covid) :- symptom(fever), symptom(cough), symptom(breathing_problem).

% Example symptoms entered by user
symptom(fever).
symptom(cough).
symptom(headache).
```

OUTPUT:

```
?-
% c:/Users/gayathri/Downloads/disease.pl compiled 0.02 sec, 7 clauses
?- disease(What).
What = flu ;
false.

?-  disease(malaria).
false.

?- disease(X).
X = flu ;
false.

?- disease(X).
X = flu .

?- symptom(X).
X = fever .

?- ▮
```

RESULT

The program successfully identifies the disease based on the entered symptoms.
For example, with symptoms fever, cough, and headache, the diagnosed disease
is **flu**.