

Artificial Intelligence

 **Practical-2: Write a PROLOG program for diagnosis the childhood diseases.**

➤ **Code in Prolog:**

```
symptom(arjun,fever).
symptom(arjun,headache).
symptom(arjun,runnynose).
symptom(arjun,rash).

hypothesis(patient,measles):-
    symptom(Patient,fever),
    symptom(Patient,cough),
    symptom(Patient,conjunctive),
    symptom(Patient,runnynose),
    symptom(Patient,rash).

hypothesis(Patient,germanmeasles):-
    symptom(Patient,fever),
    symptom(Patient,headache),
    symptom(Patient,runnynose),
    symptom(Patient,rash).

hypothesis(Patient,flu):-
    symptom(Patient,fever),
    symptom(Patient,headache),
    symptom(Patient,bodyache),
```

```
symptom(Patient,chills),  
symptom(Patient,sorethroat),  
symptom(Patient,cough),  
symptom(Patient,conjunctive),  
symptom(Patient,conjunctive),  
symptom(Patient,runnynose).
```

hypothesis(Patient,commoncold):-

```
symptom(Patient,headache),  
symptom(Patient,runnynose),  
symptom(Patient,snuzing),  
symptom(Patient,chills),  
symptom(Patient,sorethroat).
```

hypothesis(Patient,mumps):-

```
symptom(Patient,fever),  
symptom(Patient,swallenglands).
```

hypothesis(Patient,chickenpox):-

```
symptom(Patient,fever),  
symptom(Patient,rash),  
symptom(Patient,bodyache).
```

hypothesis(Patient,whooping-cough):-

```
symptom(Patient,runnynose),  
symptom(Patient,snuzing),  
symptom(Patient,cough).
```

Output:

```
SWI-Prolog -- c:/Users/Arjun Vankani/Desktop/CE SEM 7/ASS/AI/Lab2/child.pl
File Edit Settings Run Debug Help
?-
% c:/Users/Arjun Vankani/Desktop/CE SEM 7/ASS/AI/Lab2/child.pl compiled 0.00 sec, -3 clauses
?- hypothesis(Patient,Disease).
Patient = arjun,
Disease = germanmeasles ■
```