

## EXPERIMENT-33

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Course: CSA1789 Artificial Intelligence

Q)Write a Prolog Program to suggest Dieting System based on Disease.

Program:

```
domain
disease,indication,name = symbol

predicates
    hypothesis(name,disease)
    symptom(name,indication)

clauses
    symptom(amit,fever).
    symptom(amit,rash).
    symptom(amit,headache).
    symptom(amit,runn_nose).

    symptom(kaushal,chills).
    symptom(kaushal,fever).
    symptom(kaushal,hedache).

    symptom(dipen,runny_nose).
    symptom(dipen,rash).
    symptom(dipen,flu).

    hypothesis(Patient,measels):-
        symptom(Patient,fever),
        symptom(Patient,cough),
        symptom(Patient,conjunctivitis),
        symptom(Patient,rash).

    hypothesis(Patient,german_measles) :-
        symptom(Patient,fever),
        symptom(Patient,headache),
        symptom(Patient,runny_nose),
        symptom(Patient,rash).

    hypothesis(Patient,flu) :-
        symptom(Patient,fever),
        symptom(Patient,headache),
        symptom(Patient,body_ache),
        symptom(Patient,chills).

    hypothesis(Patient,common_cold) :-
        symptom(Patient,headache),
        symptom(Patient,sneezing),
        symptom(Patient,sore_throat),
        symptom(Patient,chills).
```

OUTPUT:

```
SWI-Prolog (AMD64 Multi-threaded, version 9.0.4)
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).

?-
ERROR: e:/college/ai/dieting system.pl:3:8: Syntax error: Operator expected
ERROR: e:/college/ai/dieting system.pl:3:8: Syntax error: Operator expected
e e /College/AI-dieting system.pl compiled 0.00 sec, 15 clauses
?- symptoms(Patient, cough).
Correct to: "symptom(Patient,cough)"? yes
false.
?- symptoms(Patient, fever).
Correct to: "symptom(Patient,fever)"? yes
Patient = amit .
?- symptoms(Patient,runny_nose).
Correct to: "symptom(Patient,runny_nose)"? yes
Patient = dipen.
?- symptoms(Patient, chills).
Correct to: "symptom(Patient,chills)"? yes
Patient = kaushal.
?-
```