

Assignment

#code

% Define rules for diagnosing diseases based on symptoms

disease(flu) :-

```
    is_true("Do you have fever?"),
    is_true("Do you have body ache?"),
    is_true("Do you have cough?").
```

disease(cold) :-

```
    is_true("Do you have sneezing?"),
    is_true("Do you have sore throat?"),
    is_true("Do you have mild fever?").
```

disease(malaria) :-

```
    is_true("Do you have chills?"),
    is_true("Do you have high fever?"),
    is_true("Do you have sweating?").
```

% Ask user for input and check if it is 'yes.'

is_true(Question) :-

```
    format("~s (yes/no): ", [Question]),
    read(Response),
    Response == yes.
```

% Start diagnosis

start_diagnosis :-

```
    nl,
    write('Welcome to the Medical Diagnosis Expert System'), nl,
    write('Please answer the following questions with "yes" or "no".'), nl, nl,
    ( disease(Disease) ->
        format('You may have ~w.\n', [Disease])
    ; write('Sorry, your symptoms do not match any known disease in our system.\n'),
        start_diagnosis
    ).
```

#Output :-

shivrajchaudar@Shivrajs-Macbook-Pro LP-II % swipl

Welcome to SWI-Prolog (threaded, 64 bits, version 9.2.9)

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For built-in help, use ?- help(Topic). or ?- apropos(Word).

?- [a6].
true.

?- start_diagnosis.

Welcome to the Medical Diagnosis Expert System
Please answer the following questions with "yes" or "no".

Do you have fever? (yes/no): yes.
Do you have body ache? (yes/no): |: yes.
Do you have cough? (yes/no): |: yes.
You may have flu.

Welcome to the Medical Diagnosis Expert System
Please answer the following questions with "yes" or "no".

Do you have fever? (yes/no): |: no.
Do you have sneezing? (yes/no): |: yes.
Do you have sore throat? (yes/no): |: yes.
Do you have mild fever? (yes/no): |: yes.
You may have cold.

Welcome to the Medical Diagnosis Expert System
Please answer the following questions with "yes" or "no".

Do you have fever? (yes/no): |: no.
Do you have sneezing? (yes/no): |: no.
Do you have chills? (yes/no): |: no.
Sorry, your symptoms do not match any known disease in our system.

Welcome to the Medical Diagnosis Expert System
Please answer the following questions with "yes" or "no".

Do you have fever? (yes/no): |: yes.
Do you have body ache? (yes/no): |: no.
Do you have sneezing? (yes/no): |: yes.
Do you have sore throat? (yes/no): |: no.
Do you have chills? (yes/no): |: yes.
Do you have high fever? (yes/no): |: no.
Sorry, your symptoms do not match any known disease in our system.

Welcome to the Medical Diagnosis Expert System
Please answer the following questions with "yes" or "no".

Do you have fever? (yes/no): |: ^C
Action (h for help) ? exit (status 4)
shivrajchaudar@Shivrajs-Macbook-Pro LP-II %