

Diagnosis Expert System

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Outline

-INTRODUCTION

-WHAT IS (DExS)

-HOW CAN (DExS) PROGRAM APPLIED

-CONCLUSION

INTRODUCTION

An expert system is a computer software that mimics the decision-making abilities of a human expert. By doing so, it mimics the behavior of a human expert, using human knowledge to solve problems that would normally require human intelligence.



What is Diagnosis Expert System(DEXS)

A Diagnosis Expert System (DEXS) can substantially aid in the identification of diseases and the description of treatment methods while taking into account the user's ability to cope with and engage with the expert system in a simple and plain manner.



















How can the DExS program applied?

The DExS Technique can be applied in consultations since it immediately displays the diagnosis and clarifies of results ,then expert system store "exploratory knowledge, and it will come to a conclusion about the diagnosis based on the user's responses to certain questions posed by the system.

MEDICALNEWS TODAY

COVID-19 vs. Flu vs. Cold

	COVID-19	Flu	Cold
 Incubation period	2–14 days	1–4 days	1–3 days
 Symptom onset	Gradual	Abrupt	Gradual
 Cough	Common	Common	Mild to moderate
 Shortness of breath	Common	Sometimes	Mild
 Fever	Common	Common	Rare
 Fatigue	Common	Common	Sometimes
 Runny nose	Sometimes	Sometimes	Common
 Nasal congestion	Sometimes	Sometimes	Common
 Diarrhea	Sometimes	Sometimes	Rare
 Body aches	Sometimes	Common	Slight
 Sore throat	Sometimes	Sometimes	Common
 Headache	Sometimes	Common	Rare
 Loss of appetite	Sometimes	Common	Sometimes
 Respiratory issues	Common	Sometimes	Sometimes
 Chills	Sometimes*	Fairly common	Uncommon
 New loss of taste or smell	Sometimes	Sometimes	Sometimes

*including repeated shaking with chills

Screenshots of solving proplem

The screenshot displays the SWISH Prolog IDE interface. The left pane shows the source code for a Prolog program named `im_sick`. The right pane shows the execution results, which are a series of questions and user inputs.

Source Code (Left Pane):

```
1 im_sick:-
2   guessing(Disease),
3   write("after checking your symptoms i think u have: "),write(Disease),nl,
4   write(" thats it take care and remmber Prevention is better than cure "),undo.
5
6 guessing(cold):- cold,!
7 guessing(flu):- flu,!
8 guessing(covid):-covid,!
9
10 cold :-
11   check(sore_throat),
12   check(runny_nose),
13   check(sneezing),
14   check(shortness_of_breath),
15   check(cough),
16   check(nasal_congestion),
17   check(respiratory_issuse),
18   check(lossing_appetite),
19   write("incubation period is 1-3 days so dont woory just
20   take panadol , rest and drink hot drinks because "),nl.
21 flu :-
22   check(fever),
23   check(lossing_appetite),
24   ...
```

Execution Results (Right Pane):

The results show a sequence of questions and user inputs:

- im_sick.
- dear patient do you have this Symptom: sore_throat?
y
- dear patient do you have this Symptom: runny_nose?
y
- dear patient do you have this Symptom: sneezing?
y
- dear patient do you have this Symptom: shortness_of_breath?
y
- dear patient do you have this Symptom: cough?
y
- dear patient do you have this Symptom: nasal_congestion?
- ?- im_sick.

The bottom of the right pane shows tabs for Examples, History, and Solutions, along with a checkbox for "table results" and a "Run!" button.

**SWISH**

File ▾

Edit ▾

Examples ▾

Help ▾



160 users online

Search



25

((new))

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```
24     check(chills),
25     check(headache),
26     check(body_aches),
27     check(cough),
28     check(fatigue),
29 write("incubation period is 1-4 days take antiviral drugs 2 time for 5 days,
30 for watry eays you take antihstamine helpful for your flu,
31 stay home and u may use cold compresses for the fever because "),nl.
32 covid :-
33     check(loos_of_taste/smell),
34     check(fever),
35     check(lossing_appetite),
36     check(chills),
37     check(headache),
38     check(shortness_of_breath),
39     check(cough),
40     check(respiratory_issuse),
41 write("incubation period is 2-14 days
42 there is no cure discovered just eat well ,sleep well ,
43 drink plenty of fluids, open windos if u breathless  because "),nl.
44
45 ask(Q):-
46     write("dear patient do you have this Symptom: "),
47     write(Q) write(' ') read(Ansvar) nl
```

dear patient do you have this Symptom: cough?

y

dear patient do you have this Symptom: nasal_congestion?

y

dear patient do you have this Symptom: respiratory_issuse?

y

dear patient do you have this Symptom: lossing_appetite?

y

incubation period is 1-3 days so dont woory just take panadol , rest and drink
hot drinks because

after checking your symptoms i think u have: cold
thats it take care and remmber Prevention is better than cure

true

1

?- im_sick.

Examples ▴

History ▴

Solutions ▴

☒ table results

Run!

**SWISH**

File ▾

Edit ▾

Examples ▾

Help ▾



159 users online

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```
33 check(loos_of_taste/smell),
34 check(fever),
35 check(lossing_appetite),
36 check(chills),
37 check(headache),
38 check(shortness_of_breath),
39 check(cough),
40 check(respiratory_issue),
41 write("incubation period is 2-14 days
42 there is no cure discovered just eat well ,sleep well ,
43 drink plenty of fluids, open windos if u breathless because "),nl.
44
45 ask(Q):-
46   write("dear patient do you have this Symptom: "),
47   write(Q),write('?'),read(Answer),nl,
48   ((Answer==yes;Answer==y)->assert(yes(Q));
49   assert(no(Q)),fail).
50 :- dynamic yes/1,no/1.
51 check(Symptoms):-
52   (yes(Symptoms)->true;(no(Symptoms)-> fail;ask(Symptoms))).
53 undo :- retract(yes(_)),fail.
54 undo :- retract(no(_)),fail.
55 undo.
```

dear patient do you have this Symptom: cough?

y

dear patient do you have this Symptom: nasal_congestion?

y

dear patient do you have this Symptom: respiratory_issue?

y

dear patient do you have this Symptom: lossing_appetite?

y

incubation period is 1-3 days so dont woory just take panadol , rest and drink hot drinks because

after checking your symptoms i think u have: cold
thats it take care and remmber Prevention is better than cure

true

?- im_sick.

Examples ▾

History ▾

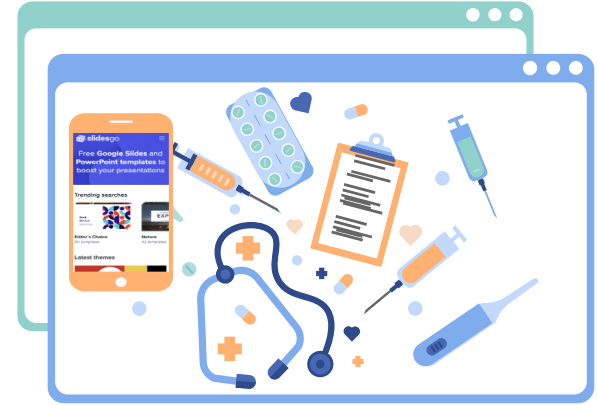
Solutions ▾

☒ table results

Run!

conclusion

If you have any symptoms, you can consult a doctor through this system, and it will diagnose your medical condition in a quick, clear and direct way, while also assuring that the diagnosis is correct and reliable.



THANKS!

Any questions?

