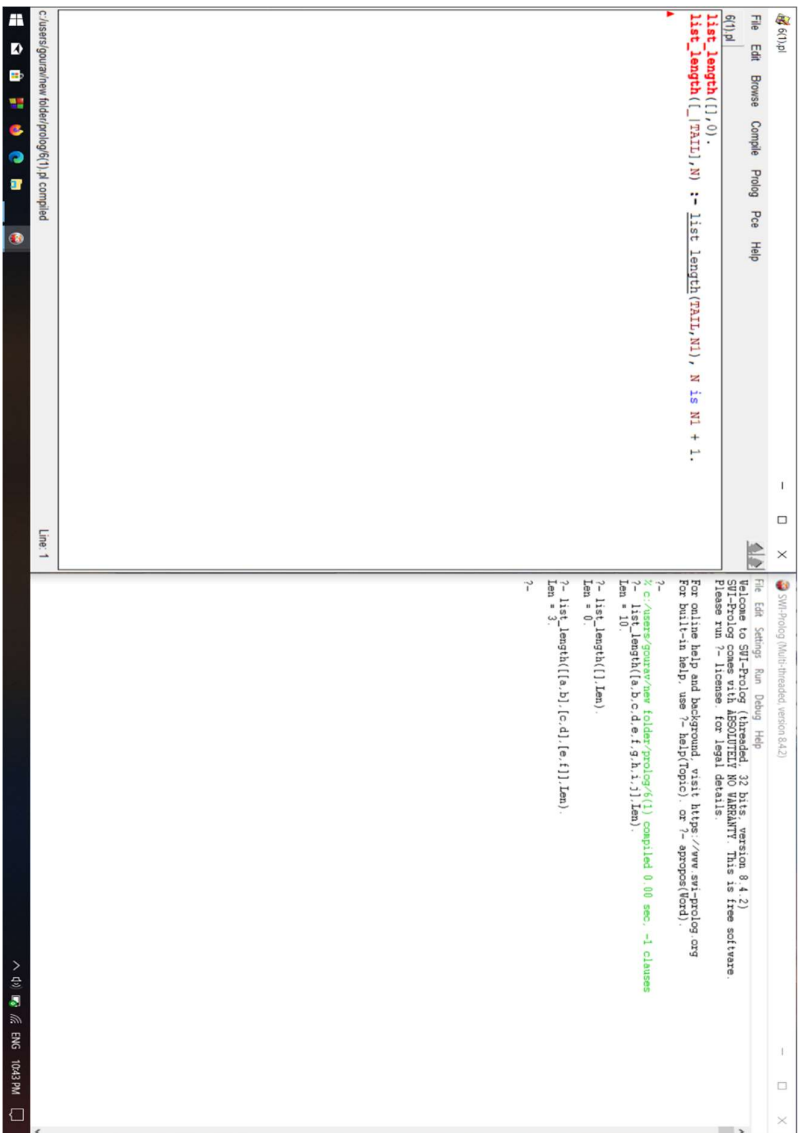


11					
12					
13					
14					



File Edit Browse Compile Policy Poe Help

14.pl

```
domain:-
    town = symbol,
    distance = integer.

predicates:
    nondeterm,road(town,town,distance).
    nondeterm,route(town,town,distance).

clauses:
    road("tampa","houston",200).
    road("gordon","tampa",300).
    road("houston","gordon",100).
    road("houston","kansas_city",120).
    road("gordon","kansas_city",130).
    route(town1,town2,distance):-
        road(town1,town2,distance).
    route(town1,town2,distance):-
        route(X,town2,dist2), Distance=Dist1+Dist2,
        road(town1,X,dist1), route(X,town2,dist2), Distance=Dist1+Dist2,!.

Line 14
```

SWI-Prolog (Multi-threaded, version 8.4.2)

File Edit Settings Run Debug Help

```
% c:\swi\swi\swi\new\14.pl\14.pl compiled 0.02 sec. -2 clauses
?- route("tampa","kansas_city",X),
   write("Distance from Tampa to Kansas City is ",X),nl.
   false.
?- route("tampa","kansas_city",X),
   write("Distance from Tampa to Kansas City is ",X),nl.
   false.
?-
```

PROLOG~1.EXE

Files Edit Run Compile Options Setup

Editor Dialog

Line 75 Col 1 C:\USERS\NIRAU\DESKTOP\BORLAN

```
hypothesis(Patient,measles) :-  
    symptom(Patient,fever),  
    symptom(Patient,cough),  
    symptom(Patient,conjunctivitis),  
    symptom(Patient,runny_nose),  
    symptom(Patient,rash).  
  
hypothesis(Patient,german_measles) :-  
    symptom(Patient,fever),  
    symptom(Patient,headache),  
    symptom(Patient,runny_nose),  
    symptom(Patient,rash).
```

No
Goal: hypothesis(patient,measles)
Does patient have a fever (y/n) ?y
Does patient have a cough (y/n) ?y
Does patient have a conjunctivitis (y/n) ?y
Does patient have a runny_nose (y/n) ?n
Does patient have a cough (y/n) ?n
No
Goal: _

Message Trace

N~1.0\MEDICAL2.PRO
hypothesis
symptom
response

F2-Save F3-Load F5-Zoom F6-Next F8-Previous goal Shift-F10-Resize F10-End

```
SWI-Prolog (AMD64, Multi-threaded, version 8.4.2)
File Edit Settings Run Debug Help

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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).

?-
% c:/Users/deves/OneDrive/Desktop/nqueens.pl compiled 0
?- n_queen(4,[2,4,1,3]).
true.

?- n_queen(4,[1,3,2,4]).
false.

?- n_queen(4,[3,1,4,2]).
true.

?- n_queen(4,[3,1,2,4]).
false.

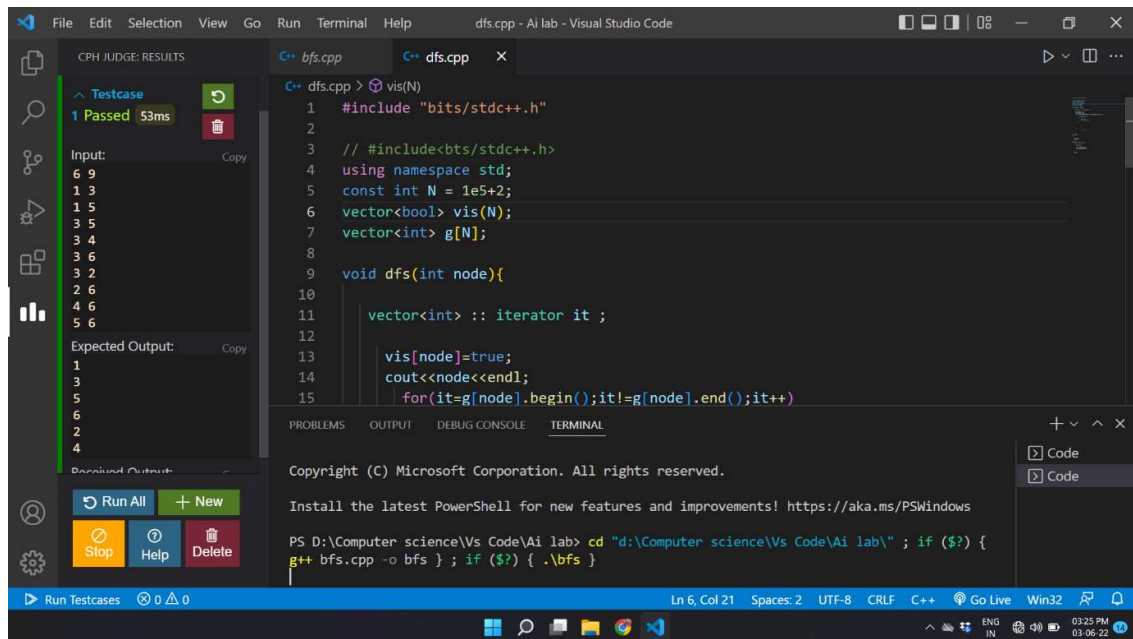
?-
```

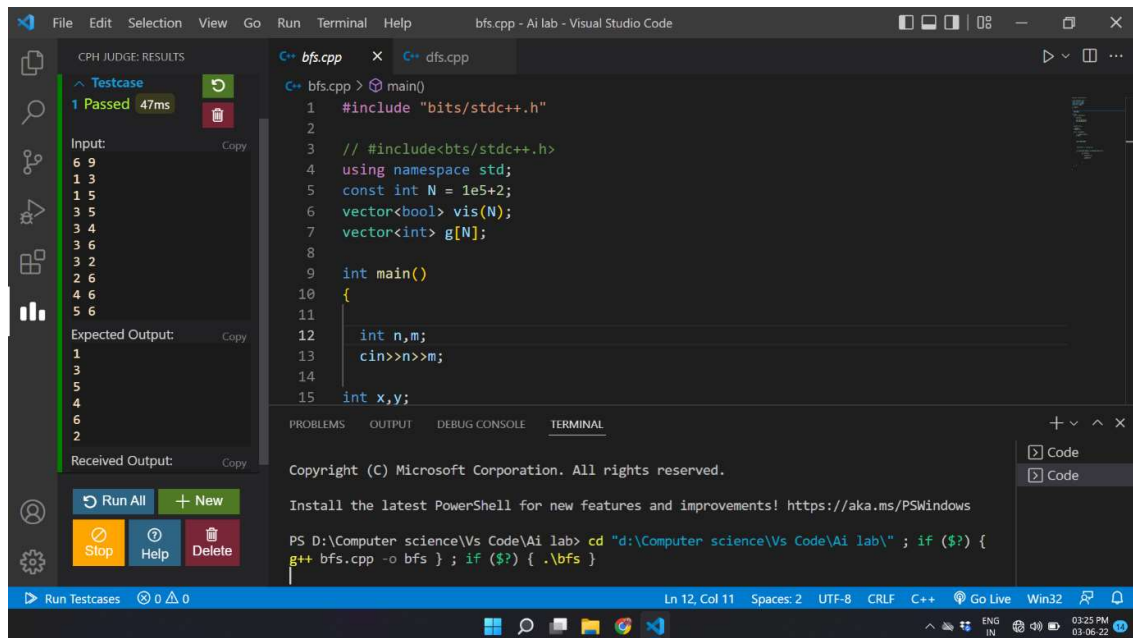
```
nqueens.pl
File Edit Browse Compile Prolog Pce Help

nqueens.pl
?- queen([],_). %No queens is a solution for any N queens problem. All queens
are in a safe position.
queen([Q|Qlist],N) :-
    queen(Qlist, N), %first we solve the subproblem
    %we then generate all possible positions for queen Q
    up2N(1,N,Candidate_positions_for_queenQ),
    %we pick one of such position
    member(Q, Candidate_positions_for_queenQ),
    %we check whether the queen Q is safe
    check_solution(Q,Qlist, 1).

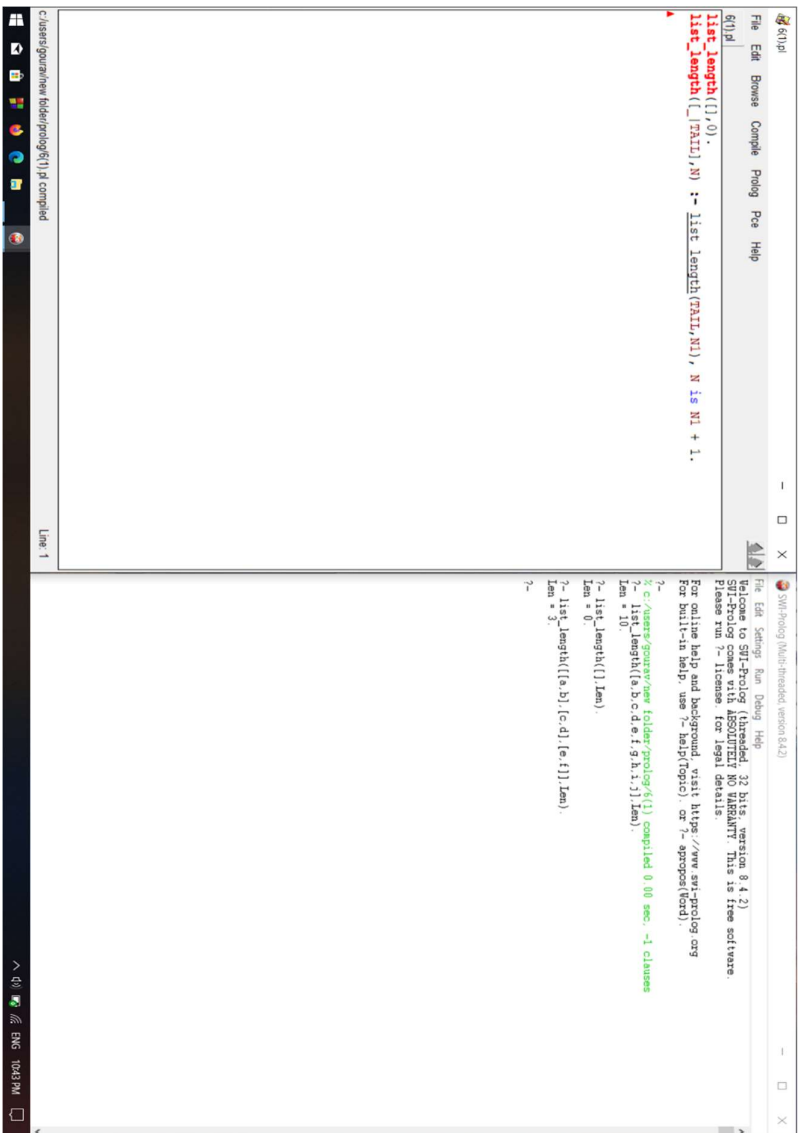
check_solution(_,[],_).
check_solution(Q,[Q1|Qlist],Xdist) :-
```

Line: 21





11					
12					
13					
14					



File Edit Browse Compile Policy Poe Help

14.pl

```
domain:-
    town = symbol,
    distance = integer.

predicates:

nondeterm,road(town,town,distance).
nondeterm,route(town,town,distance).

clauses:

road("tampa","houston",200).
road("gordon","tampa",300).
road("houston","gordon",100).
road("houston","kansas_city",120).
road("gordon","kansas_city",130).
route(town1,town2,distance):-
    road(town1,town2,distance).
route(town1,town2,distance):-
    route(X,town2,dist2), Distance=Dist1+Dist2,
    road(town1,X,dist1), route(X,town2,dist2), Distance=Dist1+Dist2,!.


```

SWI-Prolog (Multi-threaded, version 8.4.2)

File Edit Settings Run Debug Help

```
% c:\swi\swi\swi\new\14.pl\14.pl compiled 0.02 sec. -2 clauses
?- route("tampa","kansas_city",X),
   write("Distance from Tampa to Kansas City is ",X),nl.
false.

?- route("tampa","kansas_city",X),
   write("Distance from Tampa to Kansas City is ",X),nl.
false.

?-
```

C:\Users\gauravhen\code\prolog\14.pl compiled Line 14 11:50 PM

PROLOG~1.EXE

Files Edit Run Compile Options Setup

Editor Dialog

Line 75 Col 1 C:\USERS\NIRAU\DESKTOP\BORLAN

```
hypothesis(Patient,measles) :-  
    symptom(Patient,fever),  
    symptom(Patient,cough),  
    symptom(Patient,conjunctivitis),  
    symptom(Patient,runny_nose),  
    symptom(Patient,rash).  
  
hypothesis(Patient,german_measles) :-  
    symptom(Patient,fever),  
    symptom(Patient,headache),  
    symptom(Patient,runny_nose),  
    symptom(Patient,rash).
```

No
Goal: hypothesis(patient,measles)
Does patient have a fever (y/n) ?y
Does patient have a cough (y/n) ?y
Does patient have a conjunctivitis (y/n) ?y
Does patient have a runny_nose (y/n) ?n
Does patient have a cough (y/n) ?n
No
Goal: _

Message Trace

N~1.0\MEDICAL2.PRO
hypothesis
symptom
response

F2-Save F3-Load F5-Zoom F6-Next F8-Previous goal Shift-F10-Resize F10-End

```
SWI-Prolog (AMD64, Multi-threaded, version 8.4.2)
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For online help and background, visit https://www.swi-prolog.org
For built-in help, use ?- help(Topic). or ?- apropos(Word).

?-
% c:/Users/deves/OneDrive/Desktop/nqueens.pl compiled 0
?- n_queen(4,[2,4,1,3]).
true.

?- n_queen(4,[1,3,2,4]).
false.

?- n_queen(4,[3,1,4,2]).
true.

?- n_queen(4,[3,1,2,4]).
false.

?-
```

```
nqueens.pl
File Edit Browse Compile Prolog Pce Help

nqueens.pl
?- queen([],_). %No queens is a solution for any N queens problem. All queens
are in a safe position.
queen([Q|Qlist],N) :-
    queen(Qlist,N), %first we solve the subproblem
    %we then generate all possible positions for queen Q
    up2N(1,N,Candidate_positions_for_queenQ),
    %we pick one of such position
    member(Q,Candidate_positions_for_queenQ),
    %we check whether the queen Q is safe
    check_solution(Q,Qlist,1).

check_solution(_,[],_).
check_solution(Q,[Q1|Qlist],Xdist) :-
```

