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Assignment 6

This code was run in a Linux environment.

Instructions to run the code:

\$ swipl -s 180101037.pl

This will start SWI-Prolog. `shortest_path` function can be called as

?- shortest_path(Src, Dest, Result).

Src and Dest are the source and destination node numbers as highlighted in the graph1.png file.

To create a new faulty node, call the function `assertz` as following.

?- assertz(faultynode(nodeNumber)).

NodeNumber is the node in graph1.png, which has to be converted in the faulty node.

To remove a node from the faulty node list, call the function `retract` as following.

?- retract(faultynode(nodeNumber)).

NodeNumber is the node in graph1.png, which has to be removed from the faulty node.

A screenshot of sample testing is shown in the below screenshot:

```
ask@ask:~/Desktop$ swipl -s 180101037.pl
Welcome to SWI-Prolog (threaded, 64 bits, version 7.6.4)
SWI-Prolog comes with ABSOLUTELY NO WARRANTY. This is free software.
Please run ?- license. for legal details.

For online help and background, visit http://www.swi-prolog.org
For built-in help, use ?- help(Topic). or ?- apropos(Word).

?- shortest_path(11,99,Result).
Minimum path is [11,12,13,14,24,34,44,54,55,56,66,76,77,87,97,98,99]
Length of minimum path is 16
true.

?- assertz(faultynode(56)).
true.

?- retract(faultynode(27)).
true.

?- shortest_path(11,99,Result).
Minimum path is [11,12,13,14,24,25,26,27,28,29,39,49,59,69,79,89,99]
Length of minimum path is 16
true.

?- █
```