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Roll number : 180101081

1. This code was executed using SWI-Prolog (threaded, 64 bits, version 7.6.4) in ubuntu 20.04.
2. Make sure you are in the same working directory as the source code i.e 180101081.pl
3. To run the main prolog file type in terminal:
   `swipl 180101081.pl`
4. Load the database 'Mazedata.pl' by typing in console:
   `consult('Mazedata.pl').`
5. To add a faulty node X :
   `add_faulty(X).`
6. To remove a faulty node X :
   `remove_faulty(X).`
7. To find the shortest path between source(src) and destination(dst) :
   `shortest_path(src,dst,Result).`
8. Test case embedded

```
shortest_path(21,78,Path).
remove_faulty(23).
shortest_path(21,78,Path).
add_faulty(33).
shortest_path(21,78,Path).
```

Observe in the test case the shortest path length decreases after we mark node 23 as non faulty and the path changes when we mark node 33 as faulty.

I have attached a screenshot for the same.