Lab 2

To implement the below problems, you have to use a class Solution that has the main method to instantiate objects and check the correctness of your implementation.

- Suppose, you are creating a web application. In the web app, a server receives requests from clients. Sometimes, the server can not fulfill the requests for several reasons. Implement an HTTP response status code with their meaning. The error codes and their corresponding meanings are given below.

Code	**Meaning**
C_400	Bad Request
C_401	Unauthorized
C_403	Forbidden
C_404	Not Found
C_408	Request Timeout

- Suppose, a tourist comes to visit Bangladesh. Currently, s/he is in Old Dhaka and can not figure out how to return to his hotel. Unfortunately, s/he does not have any map (i.e., Google Maps). So, s/he has to talk to local persons and figure out which direction s/he is in now and which direction to go. Implement a solution by which we can know the current position and next Direction.

Position	**Direction to Go**
North	Go South
South	Go North
East	Go West
West	Go East

  Input: “North”
  Output: I am in the North
  I have to go South
  Hints: Use two methods to know the current position and next move

- We know there are some checked exceptions and unchecked exceptions. These exceptions can be detected during compile time and run time respectively. Using user-defined exceptions, we can satisfy our business requirements. You have to implement a user-defined exception.

  In a Person class, there is one attribute mobile number. If the number of digits is less than 8 and does not contain an underscore, it will throw an Invalid Format Exception.

  Input: 1234_5678 Output: Ok
  Input: 322342 Output: Not Ok