Course6 AOOP

1. **Project**

   You need to modify your code in Course 4 with the following requirements: (Do following steps in QT.)

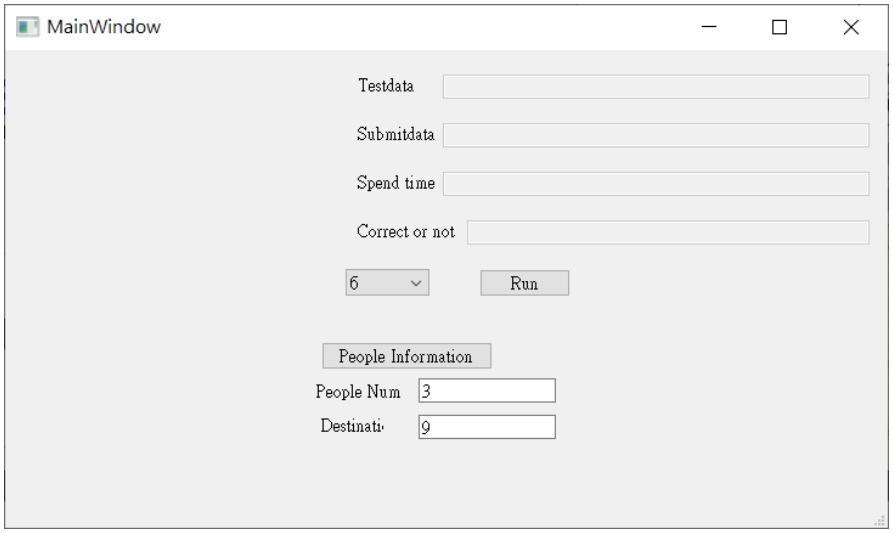
   1) Establish a connection with MySQL server. (Set database name is not needed.)
   2) Drop the schema "Course6" if it exists in MySQL server.
   3) Create a new schema "Course6" in MySQL server.
   4) Use the schema "Course6".
   5) Drop the table "peoplelist" if it exists in "Course6".
   6) Create a new table "peoplelist" with the following format:

Field	Type	Description
Id	char(8)	Id is primary key and the format of id is (nth initial condition)-(nth floor). For example, 00001-10 means the tenth floor of the first initial condition.
Nowfloor	int	
Destination	int	
Number	int	This "Number" means there are N people in corresponding floor.

   7) Load data from csv file by using Qt, not workbench. (After loading data in QT, please check if your database is successfully built in WorkBench.)
   8) You have to declare a new Class "People", and add a "People" object as a data member in "Floor" or "Building" class. (Today we have 1-10 floors)
   9) Randomly get an initial condition from the database by using SQL command "where … like …" and initialize all data members in people when the program start. (Today we have 30 initial conditions)
   10) Please modify GUI:

   Add a button and two lineEdit to show the number of people on the nth floor and their destination.(Use combobox to select which floor to display)

Sample Output



2. Find the Period of String (MyString)

When a string repeats every N characters, it can be said that the string has a period N. In this problem, you need to find the shortest period of the string.

Example

Take the string “abcabcabcabcabc”, for example. The string has repeated strings “abc”, “abcabc”, “abcabcabcabc”, and the corresponding period is 3,6,12. We want to find the shortest period, so the answer is 3.

Sample Input

abbabb
abcdef
ababa

Sample Output

3
6
5

3. **Large factorial (MyMath)**
   Your job is to calculate the value of n!.

   Sample input: (0 <= n < 10000)
   20

   Sample output
   2432902008176640000

4. **Sum of large hexadecimal integers (MyMath)**
   Calculate the sum of large hexadecimal integers

   Sample input: (only lower-case character will be inputted)
   fffffffff 10 1 f 0
   //arbitrary number of data will be inputted, terminated by a single zero

   Sample output
   100000001f
   //please use lower-case character in your output result