LAB211Assignment

Type:	**Short Assignment**
Code:	**J1.S.P0012**
LOC:	**73**
Slot(s):	**2**

Title

Doctor management program.

Background

N/A

Program Specifications

Write a program to manage the doctor information below:

```
    DOCTOR MANAGEMENT
1. Add Doctor.
2. Update Doctor.
3. Delete Doctor.
4. Search Doctor.
5. Exit.
    Please choose:
```

- If the user chooses 1 then add one record to data including **Code** (String), **Name** (String), **Specialization** (String), **Availability** (int).
- If user chooses 2: then request enter the code. If it does not exist Code, the notification "`Doctor code does not exist`". Otherwiseuser can edit of the remaining information. If Information is blank then not change old information.
- If user chooses 3: the Code requires the user to enter Code and delete information if Code exists, if Code does not exist, the notification "`code does not exist Doctor`".
- If user chooses 4: require user to enter search strings, search and returns the list for users.
- If user chooses 5: exit the program.

Function details:

Function 1: Display GUIand Input Data.

- User runs the program. The program prompts users input Data.
- Auto next **Function2**.

Function 2: Perform function based on the selected option.

- Option 1: Add Doctor
  - Require to enter task information including “code, name, specialization, availability”.
  - Check the valid data following conditions:
    - Code is not null or duplicate in the DB.
  - Add Worker to the program.
  - Return to the main screen.

- Option 2:Update Doctor
  - Require to enter Code (id) and the data to be modified.
  - Check the valid data with the conditions below:
    - Code (id) must exist in the DB.
  - Update Doctor in the program.
  - Return to the main screen.

- Option 3:Delete Doctor
  - The requirement to enter Code (id).
  - Check valid data with the conditions below:
    - Code(id) must exist in the DB.
  - Delete the doctor information.
  - Return to the main screen.

- Option 4: Search Doctor.
  - Require to enter strings to search.
  - Search data and displayon the screen
  - Return to the main screen.

- Option 5: Exit the program.

Expectation of User interface:

Guidelines

Student must implement methods

- addDoctor
- updateDoctor
- deleteDoctor
- searchDoctor

in startup code.

Suggestion:

- Class DoctorHash contains adding, editing, deleting and searchingfunctions with doctorinformation.Rewrite above function and rewrite “checkAvailability function” to check the validation of Availability, know that Availability> = 0.
- Use the Throw function to output the exceptions in the functional requirements
- Use the Put function to add an element into HashMap
- Use the update function to replace or put HashMap
- Use the delete function to remove an element in the HashMap.
- Use the value of HashMap to get the values and then use the Foreach Code, Name .... then use the “contains function” to find the value.

Function 1: Add a doctor

- Implement function: public boolean add Doctor (Doctor Doctor) throws Exception
  - Input:
    - doctor: information of doctor.
  - Return Value:
    - Status doctor added.
    - Exception ("Database does not exist") case was null HashMap information
    - Exception("Doctor code [Code] is duplicate") if identical code.
    - Exception("Data does not exist") If the parameters are null doctor.

Lists 2: Edit the information of doctors.

- Implement the function: public booleanupdateDoctor (Doctor Doctor) throws Exception
  - Input:
    - doctor: information of doctors.
  - Return Value:
    - Status doctor fix.
    - Exception ("Database does not exist") case was null HashMap information
    - Exception("Data doesn't exist") If the parameters are null doctor.
    - Exception("Doctor code doesn’t exist") if no code exists.

Function 3: Delete the information of doctors.

- Implement the function: public booleandeleteDoctor (Doctor Doctor) throws Exception
  - Input:
    - doctor: information doctors.
  - Return Value:
    - Status doctor fixed.
    - Exception ("Database does not exist") case was null HashMap information
    - Exception("Data doesn't exist") If the parameters are null doctor.
    - Exception("Doctor code doesn’t exist") if no code exists

Function 4: Find information of doctors.

- Implement the function: public HashMap<String, Doctor>searchDoctor (String input) throws Exception
  - Input:
    - input: information of doctors.
  - Return value:
    - HashMap<String, Doctor> list of doctors found.
    - Exception ("Database does not exist") case was null HashMap information