

BSc (Hons) in Information Technology

IT2030 – Object Oriented Programming

Semester 1, 2020

Year 2

Assignment 1 - Repeat

This is the Repeat Assignment 1 . In this Assignment You have to implement below exercises in java.

You are required to work on the assignment individually (**code should be in Java**) and submit your solutions on or before **10th of May 2020**.

You need to attempt both Question 1 and Question 2 for this assignment.

Instructions on submitting the assignment:

- Copy only **the source files** (file with **.java** extension) into a separate folder and rename it with your student id.
- Make the folder as zip file (when archiving, give the student id as the archive folder name)
- Upload to the course web.

Any student answer which is not following the correct instructions when submitting, will not be assessed.

Question 1

You are going to design a program, which calculates room charges for a certain hotel. The room types available are Delux-Double, Standard-Family and Standard-Single. The room charge depends on the facilities required.

Design a **RoomChargeCalculator** class with the following methods.

Method **getChargeDeluxDouble** that accepts the true/false for the following parameters.

balcony, parking, tv, kitchen, wifi

Use the following etails to calculate the fee.

Fixed fee = 5000

Additional chargers if the following were requested,

Balcony – 500

Parking – 200

BSc (Hons) in Information Technology

IT2030 – Object Oriented Programming

Semester 1, 2020

Year 2

Assignment 1 - Repeat

Tv -200

Kitchen – 1000

Wifi - 100

Method **getChargeStandardFamily** that accepts the true/false for the following parameters.

parking, kitchen, garden

Use the following details to calculate the fee.

Fixed fee = 3000

Additional chargers if the following were requested,

Parking – 200

Kitchen – 500

garden - 200

Method **getChargeStandardSingle** that accepts the true/false for the following parameters.

parking, ac, wifi

Use the following details to calculate the fee.

Fixed fee = 2000

Additional chargers if the following were requested,

Parking – 200

Ac – 500

wifi – 100

write a program, which displays the following menu and responds to the user's selection:

Room Charge Calculator

1. Delux-Double

2. Standard-Family

3. Standard-Single

4. Quit

Enter your choice (1-4):

Display an error message if the user enters a number outside the range of 1 through 4 when selecting an item from the menu.

BSc (Hons) in Information Technology**IT2030 – Object Oriented Programming****Semester 1, 2020****Year 2****Assignment 1 - Repeat**

Question 2

Implement a class named RandNum. The class should have a 5x5 2D array of 25 integers. The constructor should use the random() function to generate a random number in the range of 1 to 100 for each element in the array.

Implement a method to calculate the minimum, maximum and average of the 25 values.

Implement a method to display the values of the array, minimum, maximum and average of the 25 values.