



National University

of Computer & Emerging Sciences



Program: BS (CS/SE)
Semester: Fall 2022
Course: CS1004 - Object Oriented Programming

Assignment#02
Marks: 30
Due Date: 01-12-2022

NOTE: Attempt all questions.

1. Write a C++ program to simulate a hotel:

[CLO3]

- a. Design a class named **Room**. Each object of the class Room can hold the following information: **room number**, **type** of the room (Basic, Standard or Luxury), **check-in time**, **check-out time**, **rent** and **status** of the room (free, occupied). Define functions to set and get information of a Room.
- b. Design a class named **Hotel**. Each object of the class Hotel can hold the following information: **name** of the hotel, **location** of the hotel, **name of the owner** of the hotel, **rooms** in the hotel (objects of the class Room). Define functions to set and get information of the hotel mentioned above and also define the following functions:
 - **checkIn(int roomNo)** - A customer is assigned a room.
 - **checkOut(int bookingID)** - A customer leaves a room, the room is now free to be assigned to any other customer.
 - **getAvailRoom()** - A summary of which rooms are available i.e. room number, type of room etc.
 - **showRoomSummary(int roomNo)** - Shows if the specific room is available or occupied, if occupied which customer is it assigned to and what is the check-in time.
- c. In **main()** create an object of the class hotel and assign different rooms to different customers.

Note: You can add functions more functions to any of these classes if needed.