

**Gebze Technical University  
Computer Engineering**

**CSE 222 - 2018 Spring**

**HOMEWORK 1 REPORT**

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# 1 INTRODUCTION

## 1.1 Problem Definition

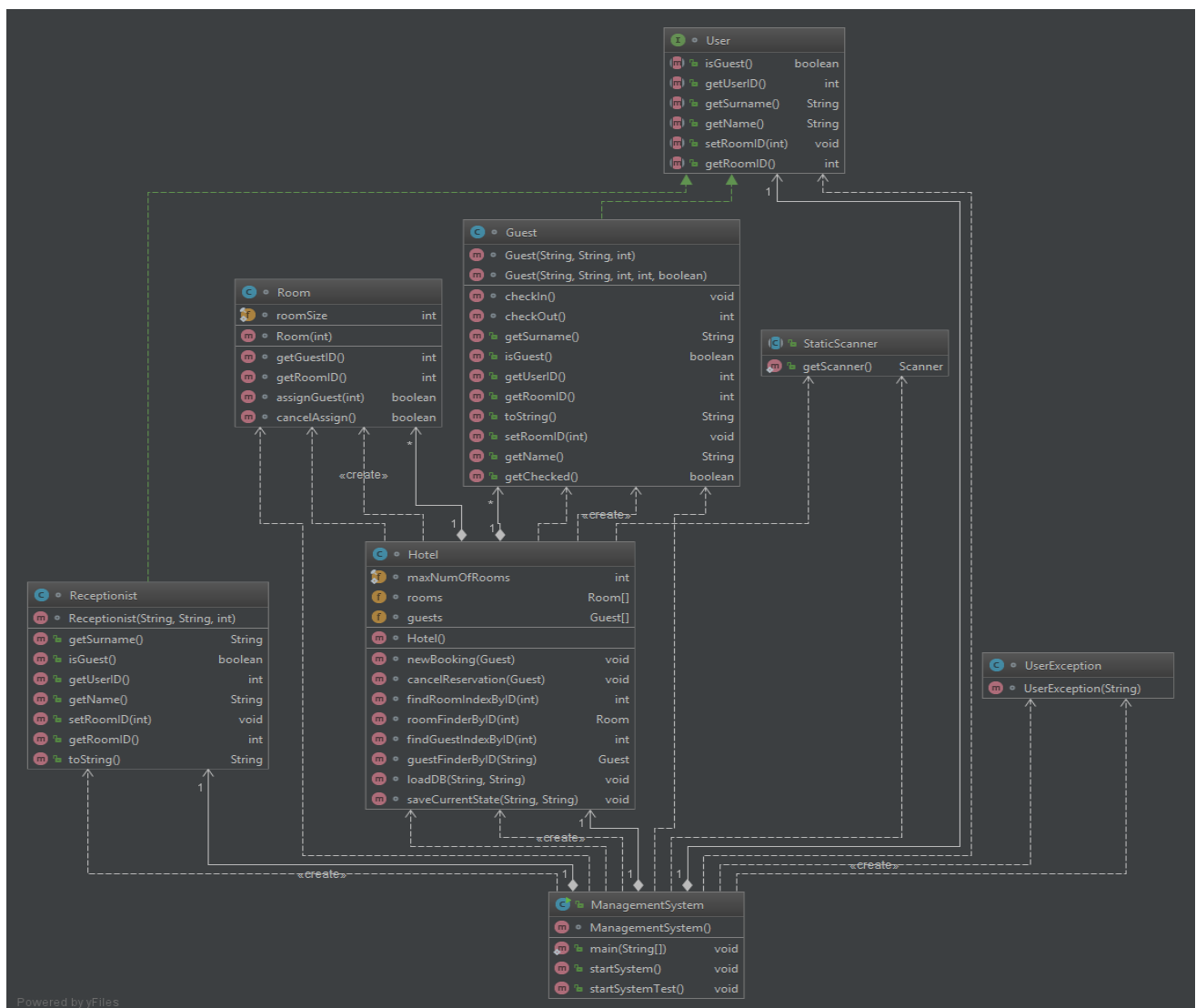
There is a need for simple hotel management system that keeps their records in files and that is capable of logging both by Receptionists and Guests.

## 1.2 System Requirements

The system must include data keeping, check-in, check-out, booking and cancelling a reservation features and a simple interface for users to use the system. There has to be a database file to read initially.

# 2 METHOD

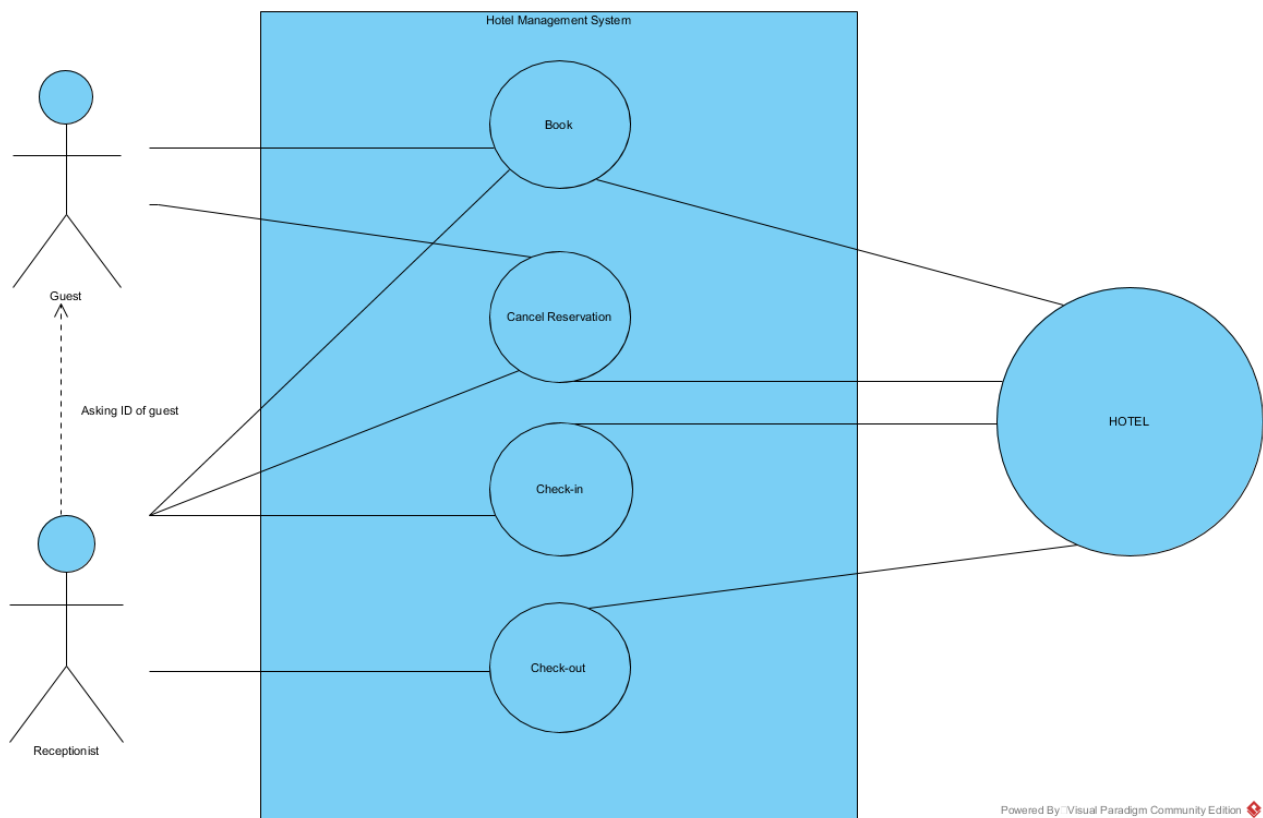
## 2.1 Class Diagrams



Also, can be found in project folder as "Package Hotel Class Diagram.png"

- UserException class is used for throwing exception related to user login attempts.
- StaticScanner class is used for reading inputs from a file. Normally if a user wants to use the system he/she has to enter every input from console using startSystem() method of ManagementSystem. But for reviewing purposes Main Test calls startSystemTest().

## 2.2 Use Case Diagrams



Also, can be found in project folder as "Package Hotel Use Case Diagram.png"

Guests can only book a room and cancel their reservations. Receptionist can also check guests in and out. All operations are being recorded to hotel.

## 2.3 Problem Solution Approach

I used a User interface to represent System users. They're Guests and Receptionist which are inherited by User interface and implemented all common functions. Also, I have a Room class that contains its number and guest information who is assigned to that room. And main hotel class uses this 3 classes as its data: Guest and Room array. Hotel class saves and loads its data of guests and rooms to csv files in same names.

- Program starts with reading stored data from files for guest and room information
- System asks user his last name and user id
- If they have provided correctly, then asks for an operation to be made according to

User type.

- If receptionist selects an operation, system asks for guest id to execute operation. Otherwise, it executes operation.
- After operation is done, system asks if user wants to make another operation.
- System logs out the user and based on previous answer restarts the program or closes it.

Bugs & couldn't implemented features:

- There isn't any sign up feature. All current guests are stored in guests.csv. First 15 of them are not checked in. Rest is checked in their rooms.
- I used helper functions to find a guest's index in its array etc. But if searched guest isn't in the array, it throws an exception and I didn't handle that exception. Realized this too late and handling that exception requires reimplementing of main flow method. But other than that, there aren't any bugs I've encountered.

### 3 RESULT

#### 3.1 Test Cases

2 test cases provided in input1.txt and input2.txt. In order to change input you need to change input files name to input1.txt or change file name in the StaticScanner class.

You can monitor all changes in the guests.csv and rooms.csv. And I also saved their first states to the files under src file. Program will change root directory's files eventually. But you can find their initial states under src folder.

First input case:

- Guest enters by giving last name and id
- Pick operation cancels reservation
- Says no to restart to program

Second input case:

- Receptionist enters
- Selects operation 3 which is check in guests
- Gives guest id 5
- Says he wants to continue in the program
- Enters again with same credentials
- Selects operation 4 which is check out guests
- Gives same guest id 5
- End program by giving input "n"

## 3.2 Running Results

```
Welcome to the GTU Hotel Management System!
Please provide your Last Name and your User ID correctly. (Do not share your id with anyone other than hotel receptionists.
Last Name: User ID: Guest Abbey Aaby logged in successfully.
Please select one of operations listed below.
1. Book a Room
2. Cancel Reservation For Your Reservation
Guest Abbey Aaby successfully cancelled reservation.
Guest ID: 2
Room ID was: 149
Do you want to choose another operation? (y/n)Have a nice day!
```

### First Test Case

```
Welcome to the GTU Hotel Management System!
Please provide your Last Name and your User ID correctly. (Do not share your id with anyone other than hotel receptionists.
Last Name: User ID: Receptionist Halil Omur Çeçen logged in successfully.
Please select one of operations listed below.
1. Book a Room for a Guest
2. Cancel Reservation
3. Check-in a Guest
4. Check-out a Guest
Enter Guest ID which you want to check-in: Guest Abdul Aakre successfully checked in.
Guest ID: 5
Room ID was: 146
Do you want to choose another operation? (y/n)Please provide your Last Name and your User ID correctly. (Do not share your id with anyone other than hotel receptionists.
Last Name: User ID: Receptionist Halil Omur Çeçen logged in successfully.
Please select one of operations listed below.
1. Book a Room for a Guest
2. Cancel Reservation
3. Check-in a Guest
4. Check-out a Guest
Enter Guest ID which you want to check-out: Guest Abdul Aakre successfully checked out.
Guest ID: 5
Room ID was: 146
Do you want to choose another operation? (y/n)Have a nice day!
```

### Second Test Case

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- Subtitles -> 14pt, 1.5 line break
- Paragraph -> 12pt, 1.5 line break