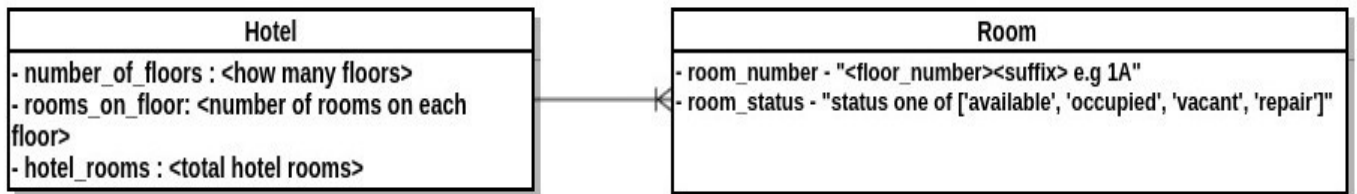


Hotel Room Assignment Problem

Design Consideration



In this assignment, the fact the room_number consists of <floor_number><suffix> helps in calculating the room index and this fact is leveraged in this assignment to do simple calculation that improves the efficiency of the operation as mentioned below

1) Room Assignment : It takes Big O (1) as I have maintained a list of available rooms and it directly fetches the first available room nearest to the entrance

2) All the other operations e.g Checkout, Clean, Repair takes Big O(1)

Run Instructions

I have created two scripts run and test for ease of use and quick testing

step 1 : scripts/run – this will run the app and show user dialog to enter input

step 2: Enter your options accordingly

step 3: scripts/test – this will run all the unit testcases

Note: If script is not executing just need to make it executable by

“ chmod +x scripts/run ”

Out put Screens

1) Assign Room

```
Hotel Service Initialized .....
You can perform the following operations by selecting the correct option from the below menu
1) assign room
2) checkout room
3) clean room
4) repair room
5) list all available rooms
6) exit
Enter your choice 1
You choose to assign room
Room allotted to guest : 1A
1) assign room
```

2) List All Available Rooms

```
1) assign room
2) checkout room
3) clean room
4) repair room
5) list all available rooms
6) exit
Enter your choice 5
You choose to list all available rooms
The following rooms are available:
Room - 1B is available
Room - 1C is available
Room - 1D is available
Room - 1E is available
Room - 2E is available
Room - 2D is available
Room - 2C is available
Room - 2B is available
Room - 2A is available
Room - 3A is available
Room - 3B is available
Room - 3C is available
Room - 3D is available
Room - 3E is available
Room - 4E is available
Room - 4D is available
Room - 4C is available
Room - 4B is available
Room - 4A is available
1) assign room
```

3) Checkout Room

```
1) assign room
2) checkout room
3) clean room
4) repair room
5) list all available rooms
6) exit
Enter your choice 2
You choose to checkout room
Please enter the room number of the guest to checkout! 1A
Guest checked out successfully from room : 1A
1) assign room
```

4) Clean Room

```
1) assign room
2) checkout room
3) clean room
4) repair room
5) list all available rooms
6) exit
Enter your choice 3
You choose to clean room
Please enter the room number to perform cleaning 1A
Room 1A cleaned successfully!
```

5) Repair Room

```
1) assign room
2) checkout room
3) clean room
4) repair room
5) list all available rooms
6) exit
Enter your choice 4
You choose to repair room
Please enter the room number to perform repairing 1A
Room 1A is under repair now!
```