

Project: Hotel Reservation System

Due Date: April 07, 2024

Introduction:

Hotel ABC is one of the famous tourist hotels in XYZ city. But this hotel's current reservation is based on manual system. When guests come in to make reservation details are recorded in a file and then those files are stored in special cabinets. Also, the billing system is manual too.

As the current system is manual based, management of the hotel must put extra efforts to keep the data secured. Record can easily be destroyed in case of fire, disaster or even possible to be stolen. Also keeping files take extra cabinets to store them into, searching a record is very hard, which in results put lots of man hours. As well as billing system are manually handled so having an error in calculation is also at high risk.

We have decided to develop their Reservation system as a computer-based system and hotel can give quick service to the guests.

Objectives:

- Computerized system to replace the manual reservation system.
- Save time of hotel employees and guests.
- Develop a data structure which stores guest's details when they arrive for reservation.
- Create an easy to understand user friendly environment.
- The customers can book the room via phone (an authorized person has to do it) or in person (using the kiosk).
- The billing system should provide a bill against each reservation made at check out.

Functional Requirements:

Using KIOSK or SELF

- Welcome page with appropriate message, like welcome to ABC hotel self-booking kiosk etc..
- Upon entering to the system it should show the available rooms read from the database to the guest.
- System should ask for the number of persons going to check-in.
- Based on the number of guests system should suggest how many rooms the guests needed.
- System should not accept more than 2 adult guests in one room.

- System should accept the booking if less single person wants to book a room as well.
- System should ask the guest's details for room booking registration if all the fields are entered correctly.
 - Proper validation is required and make sure that your form indicates to the user which are required fields.
- System should store the user/ guest data into an appropriate database.
- System should ask for check-in/ check-out dates.
- System should ask for confirmation with appropriate message and showing the booking details.
- The system should store the booking in database.
- The system should show the conformation of the room and welcomes to the guest.

Using phone booking

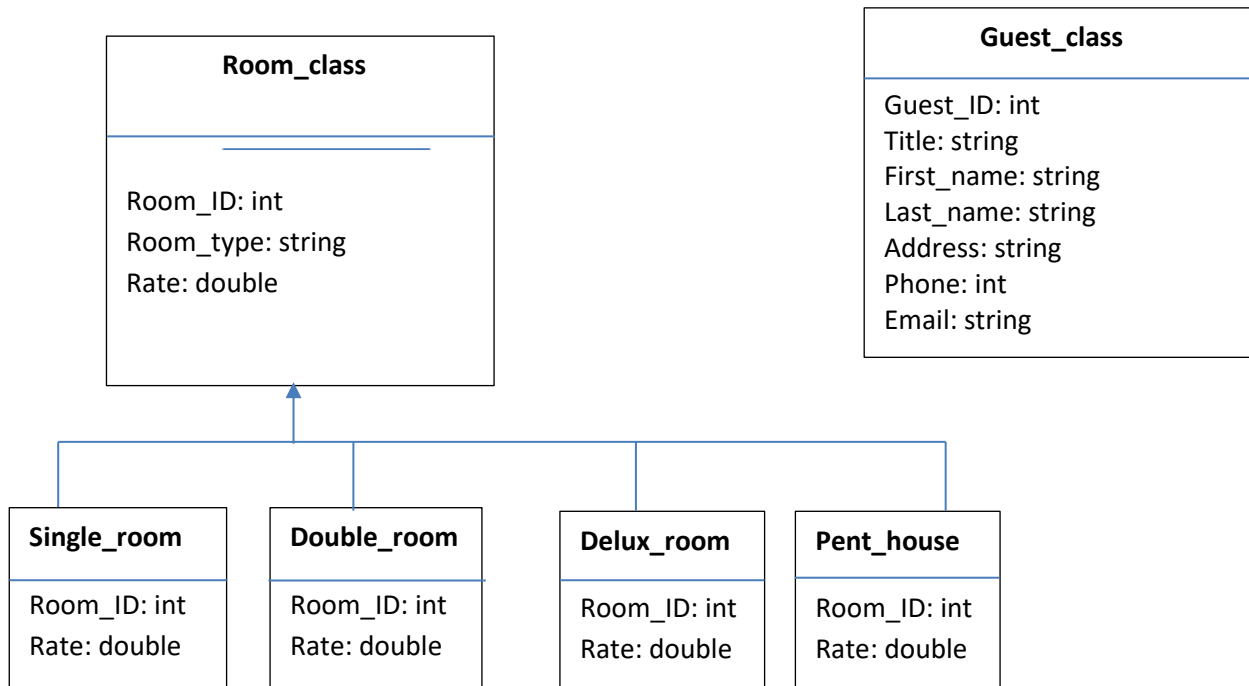
- System main page should provide a link/ button/ menu option to login the admin.
- System should display a message the login page is for admin only.
- Repeating the same steps now that a kiosk system is doing.

Extra functionalities for the Admin only

- The system should allow the admin to search for guests by their name/ phone number.
- Upon check out the system should allow the admin to offer a discount as well.
- Admin should be able to cancel a booking as well.
- Admin should be able to check out the guest properly once all the bills are settled.

Minimum Classes Required:

These are the minimum set of classes required to complete the project. You can add more classes if needed and add more functionalities to it. All inputs needed to have get and set methods. Your model class should use the proper binding properties with proper types. All information to be stored in the database regarding guests, bills, room information etc.



Expectations from the project:

Note: the following snapshots are just for idea, students are not to create their window design following these snapshots they are just provided for the students to help them out in clearing the idea and the flow.

The project login window

<u>Hotel Reservation System</u>
User Id:
User password:

Once the admin login to the system he should be able to see another menu,

Hotel Reservation System

- [1] Book a room
- [2] Bill service
- [3] Current bookings
- [4] Available rooms
- [5] Exit

Option 1: Book a room will open another menu.

Hotel Reservation System

No of guests:

Show the room available for the guests:

Choose the room type:

No of days to be booked for:

Rate to be offered /day:

- Note:
- No of guests will take how many guests are going to stay,
 - 1 adult can have a single room
 - 2 adults can have a single room
 - More than 2 adults less than 4 can have Double room or two single rooms will be offered.
 - More than 4 adults will have multiple Double or combination of Double and single rooms.

After this information and room selection is done, another menu should open to get the guests information.

<u>Hotel Reservation System</u> Title: First Name: Last Name: Address: Phone: Email:
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- Note: - Email should be a valid address, something@something.com
- Required fields should be properly marked.

Once all these steps are done the system should automatically save and store the information in appropriate classes using appropriate data structures or database whatever option you choose to store the data with.

Option 2: Bill Service menu will show

<u>Hotel Reservation System</u> Enter Booking ID:
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<u>Hotel Reservation System</u> Booking ID: Guest Name: No of rooms booked: Type of rooms: Rate per night: Discounts: % Total Amount:
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Note:

- A discount will be given if entered like 5% or 10% up to a maximum of 25%.

Option 3 – Will show the list of all the current bookings,

<u>Hotel Reservation System</u>				
No of current bookings are: 6				
Booking #	Customer Name	Room Type	No of Rooms	No of Days
.....

Option 4 – Will show the list of available rooms in the hotel

<u>Hotel Reservation System</u>	
No of Available rooms: 3	
Room ID	Room Type
.....

Option 5 – Will quit the program.

Submission deadlines:

- **March 22nd, 2024** 5%
 - First deadline is a check point in which everyone must participate it will be a short 3 to 5 minutes meeting in which you will present your final designs, class diagrams, UML etc. or any other diagram that can support your project structure, data flow, front-end designs.
 - No submissions required but you must show up and explain your designs.
 - Attendance is mandatory for this milestone.

- **April 7th, 2024**

10%

- Second deadline is your final submission in which you will record a video to show the full working project that you prepared with explanation of your challenges only faced. Video should be minimum 5 – 7 minutes but you can use more time to explain if you want. There is no deduction for extra minutes of video.
- Submit your full project.
- Reflection should include,
 - Challenges you faced and finding the solutions.
 - Learnings during the project.

Important pointers:

- **Every Friday class students can approach and discuss the design of the project, their progress and if there are any issues.**
- **Your whole project must follow the MVC approach with proper packages of their names, classes with proper names following java naming conventions.**
- **System should have minimum two administration Id's and passwords stored in the database.**
- **I should be able to run two command prompts with admin id and password.**
- **So you must set up a multithreaded server.**
- All the fields should have proper validation, for example if you are taking input as an integer then I shouldn't be able to enter string or double values, like no of guests.
- All exception handling must be done properly.
- You are allowed to add more functionality or menu items or classes.

Good Luck and Happy Coding....