Project Report

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Project Category:

Following is the project category

○ **A-**Desktop Application/Information System

Abstract

Our Proposed system provides the overview of management and maintenance of a hoetel. It aims mainly at covering the database area of hotel management system. This system allows us to ease the process of reservation and acquiring the facilities provided by hotel eliminating the need for front desk staff. The admin will have control over all the system. By verifying his account, he will be able to make change in anything The customer can register themselves by creating an account, providing system with relevant information. (Each registered customer can book a room of available categories and opt for room services). Customer is provided with different facilities such as booking a room, enquiring about rooms and services available, checking in and checkout of hotel, order food, give laundry and book event tickets. The system will displayed the information about the availability of the rooms that are not booked. The customers will only see the rooms that will be free. Our system cover the module of employee information and also provides the feature of searching any customer or employee and get there information. There are different types of employees too, that works in the hotel. Some of them will be in the "Management". They will be assigned duties of managing the rooms and the customers.

1. Introduction

In **Manual system (Traditional paperwork)** people had to come to the hotel to book a room. It also has many cons in it such as difficulty in searching information, they do not have backups if the file is misplaced for some reason (No Security), difficulty in modifying the data, etc. Our proposed system, " **Hotel Management System"** will replace this old system.

The basic purpose of the **Hotel Management System** is to automate the process for the Hotel admin and the customers. Admin will be able to search the customer by a single click as before he searched whole lists by hand. Admin will also be able to get customer's detail with a single click. Customers can book room sitting anywhere no need to go to the hotel.

The admin will have the complete access to the Hotel. The employees will be assigned their respective duties. If the type of the employee is "management", then he will be assigned the rooms of the customers accordingly.
There will be some services provided to the customer like booking a room from anywhere around the world, the customer will be able to check-in and check out, the customer will be able to check the availability of rooms. Customers will be able to pay online through debit/credit card.
The customer can book an event. The event may be of any type like a concert, a debate session and so on. The customer can book any ticket from his account. There will be food and laundry services provided to the customer too.

This system resolves human error in data entry, provides a secure environment for the data to be stored, Easy to modify the data, easy to search any record, easy to delete and so on.

2. Proposed System

This system will resolve following:
1. Human error in data entry,
2. Provides a secure environment for the data to be stored
3. Easy to modify the data.
4. Easy to search any record.
5. Easy to delete data
6. Decision is faster and convenient for the customers.
7. Customers can stay at home and book a room.
8. Customers can book an event, a new room, give laundry and order food through his account.
9. Efficient Communication with the customers.
10. Time saving as maximum work has been done by the system and thus saves the time

3. Advantages/Benefits of Proposed System

1. Saves time for Admin and the Customer.
2. System will reduces the human error.
3. Easy to keep the record of a Hotel Management System.

4. System will speed up the process.
5. Retrieval of data is faster than manual work.

4. Scope

This system allows us to ease the process of reservation and acquiring the facilities provided by hotel eliminating the need for front desk staff. System will calculate and keep the track of bills and payments of the customers. This System will be managing the customers, employees, reservation of rooms, room services, billing and the payment.

The **admin section** will have control over the employee details, will keep a check on **Reservations** done by the customers, also manages room services providing the facility of help center to the customer for guidance, it will also keep the control over the billing and payment section**.** All the **CRUD** functions are performed where required.

Customer will be able to **register** themselves by creating an account by providing his/her verified information. The customer will be able to edit his personal details. Each registered customer will have the facility to book a room, book another room, book tickets**. Room service** facilities like food ordering, giving laundry will also be provided to the registered customers.

5. Modules

Following are the modules:

5.1 Module 1: Customer Management:

In this module there will be information related to the customers. The functionalities that this module provides are:
- Customer will be able to sign up.
- Customer will be able to login.
- Customer will be able to add his/her details
- Customer will be able to book a room
- Customer will be able to book an event
- Customer will be able to give laundry.
- Customer will be able to change his/her details
- Customer will be able to see his reservations
- Customer will be able to do payment though any means like banking.

5.2 Module 2: Employee Management:

In this module, everything thing linked to an employee is managed. The functionalities that this module provides are:
- **Add an employee:**
  The admin will be able to add an employee by taking the relevant information from person.

- **Delete an employee**:
The admin will be able to delete an employee from his hotel system
- **Search an employee**:
The admin will be able to search any employee and view his/her details
- **Edit an employee's detail**:
The admin will be able to edit an employee's information.
- **Assign** an employee a work

5.3 Module 3: Events Management:

In this module there will all the information about the rooms. The functionalities of this module are:
- Admin can add, remove and update event in the hotel.
- Customer can book more than one events ticket.

5.4 Module 4: Room Services Management:

In this module, everything thing linked to room services like food ordering, giving laundry
- Admin can add a service
- Admin can delete a service
- Admin can update a service
- Customer can avail a service

5.5 Module 5: Billing and Payment Management:

In this module user will be able to select the payment method that he wants to pay by credit/debit card/easypaisa account/jazzcash acccount. The functionalities that this module provides are:
- The customer will be able to know the all result of the things he has done
- The total number of events, the total number of rooms, total food orders, total number of clothes for the laundry along with the total bill of each thing as well as the total combined bill.

6. System Limitations/Constraints

The limitations and constraints of the hotel management System are:
- Only admin have access to all system functionalities without any sort of restrictions
- Customer have limited access to the specified functionalities granted by system
- Only desktop available system

7. Tools and Technologies

Following are the tools and technologies used in this system

Table 1 Tools and Technologies for Hotel Management System

	Tools	Version	Rationale
Tools And Technologies	Intellij Idea	2021	IDE
	Oracle	2015	DBMS
	Net Beans		
	MS Word	2019	Documentation
	MONGODB	5.0	DBMS
	Technology	**Version**	**Rationale**
	Java	16.0	Programming language
	SQL	2013	Query Language
	NOSQL	--	Query Language

8. ERD:

The following is the ERD of the system.
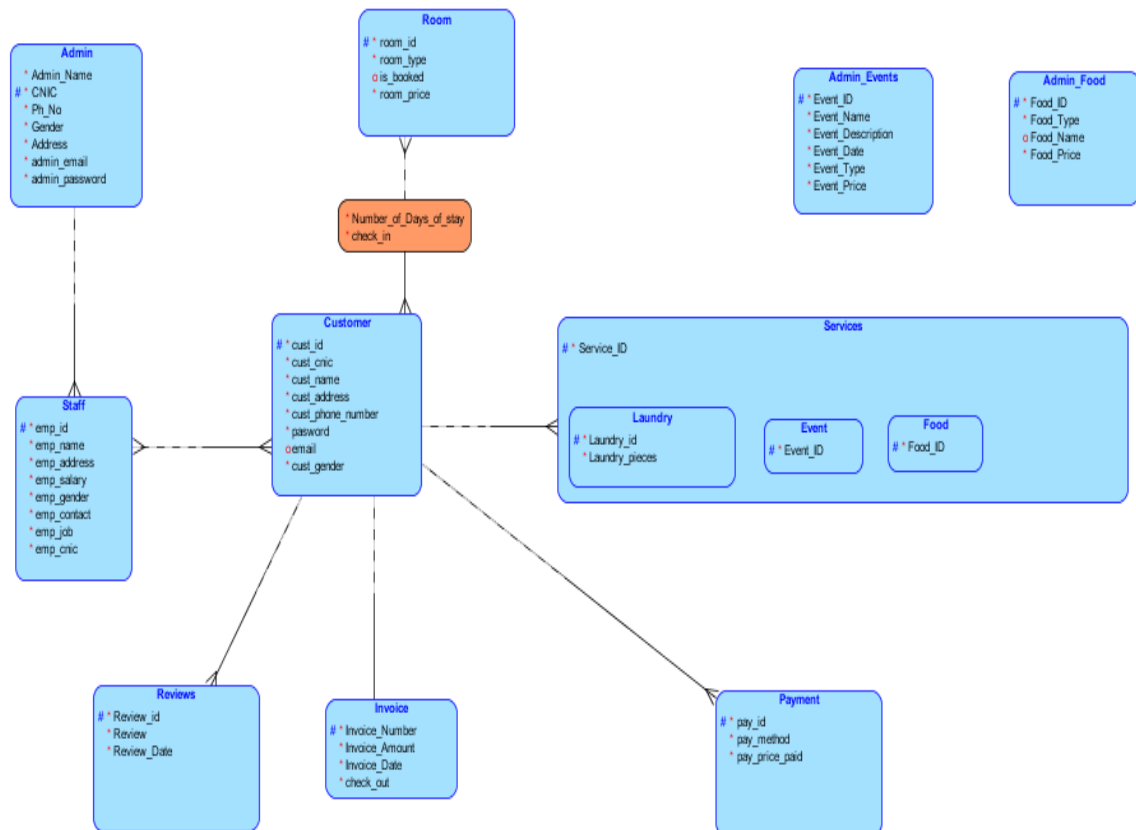
Figure 1: Logical
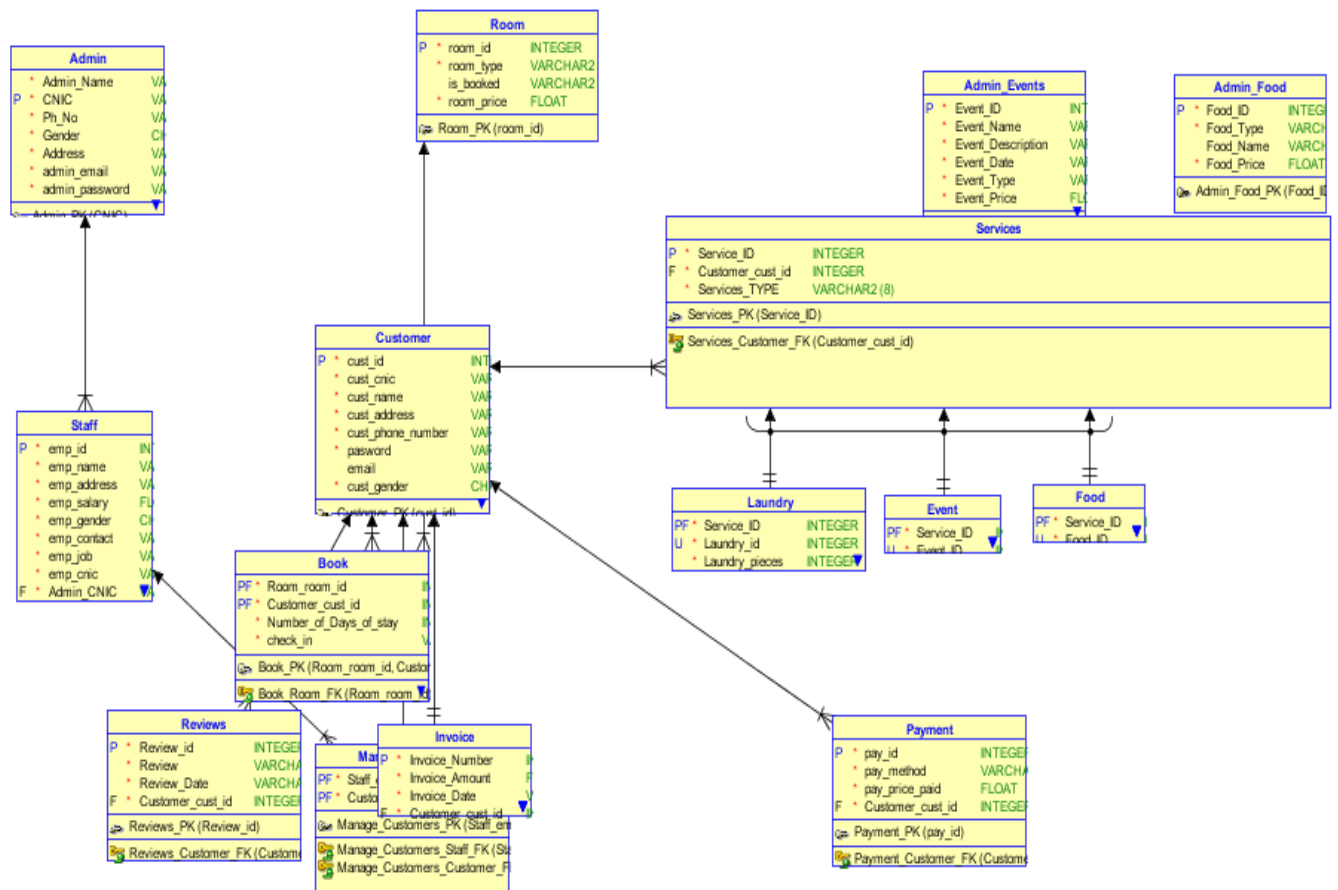
Figure 2: Relational

9. User Manual:

Our system has two actors: Admin and customer. So both have logins and their respective access to information's.

9.1 Admin Panel:

9.1.1 How to login:

If the admin provides the correct information than he will be into the system.
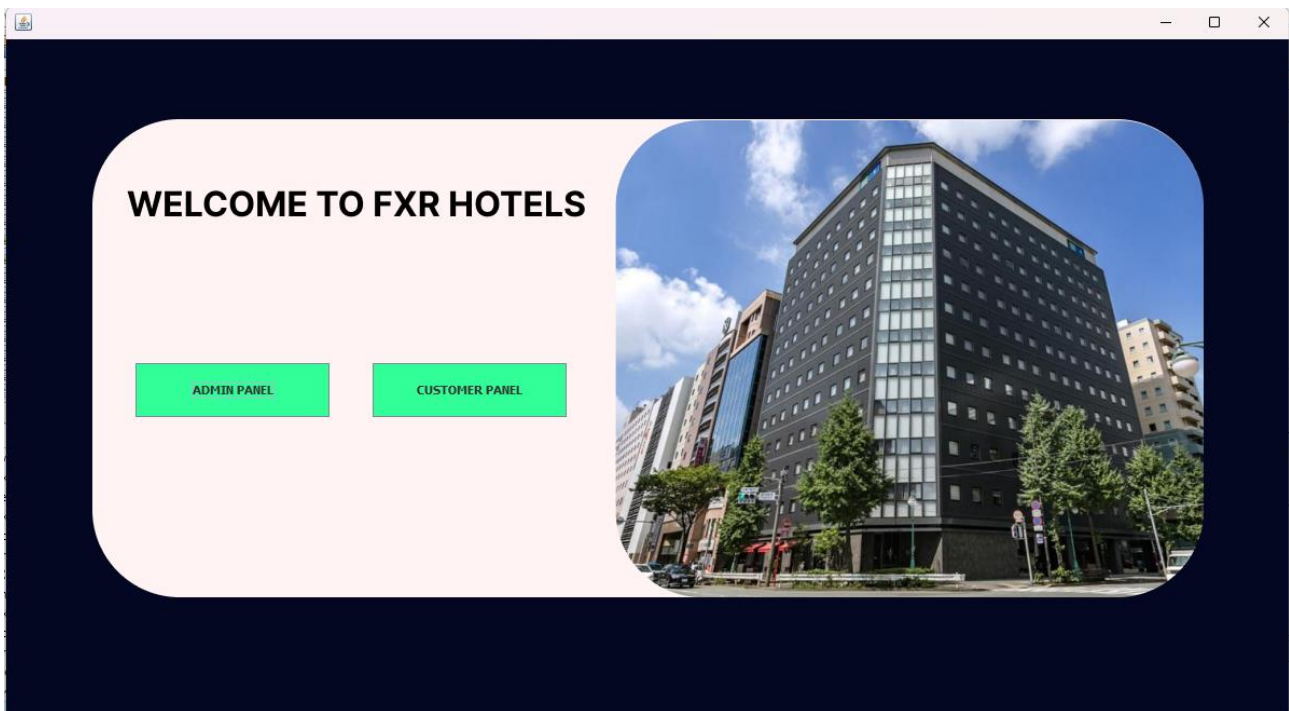
If login is successful, then Figure 2 shows the result:
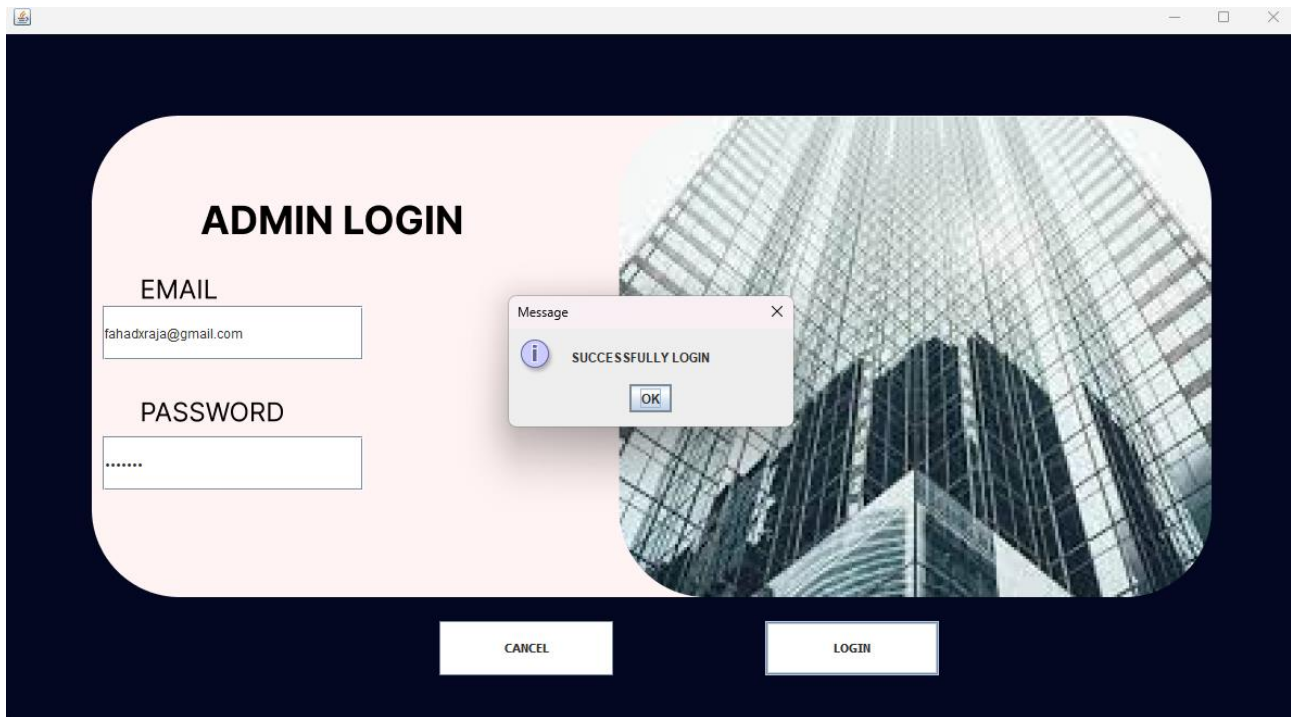
Figure 1:Successful Login

9.1.2 Main Menu:

After Successful login, the admin will be shown the main menu as shown below in figure 3. If admin want to choose any option, he will click the button and will be shown the next window.
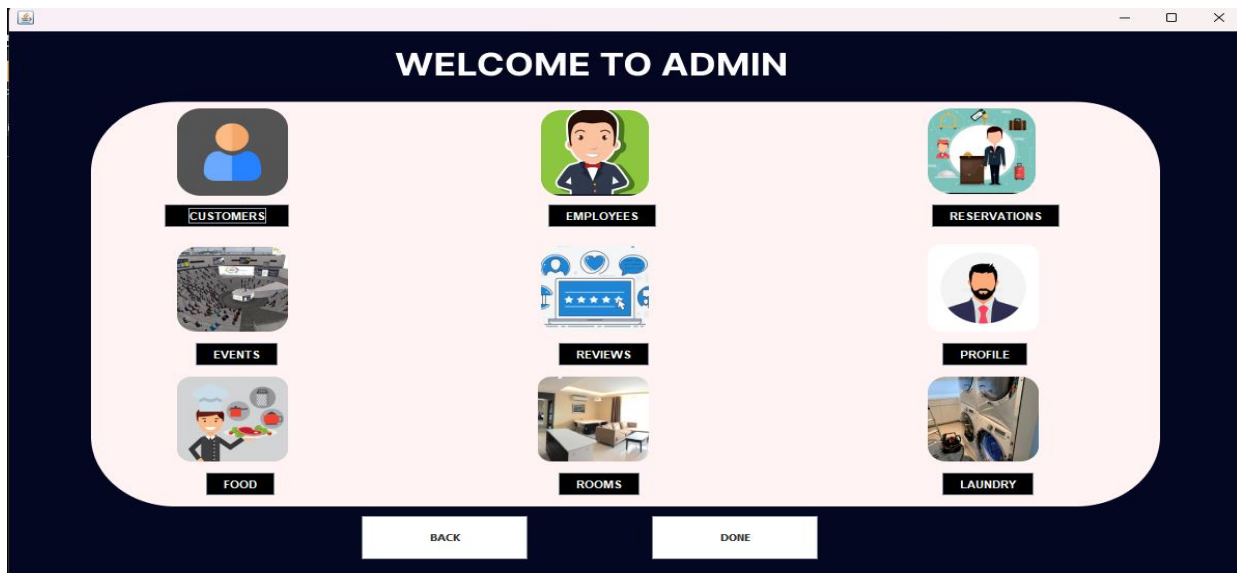
Figure 2:Main Menu

The admin can perform any of the above functions by clicking on to the respective button.
After that there will be some more sub functions in the system. The admin can proceed by the required need.
The followings are the snap shots of some of the functionalities:
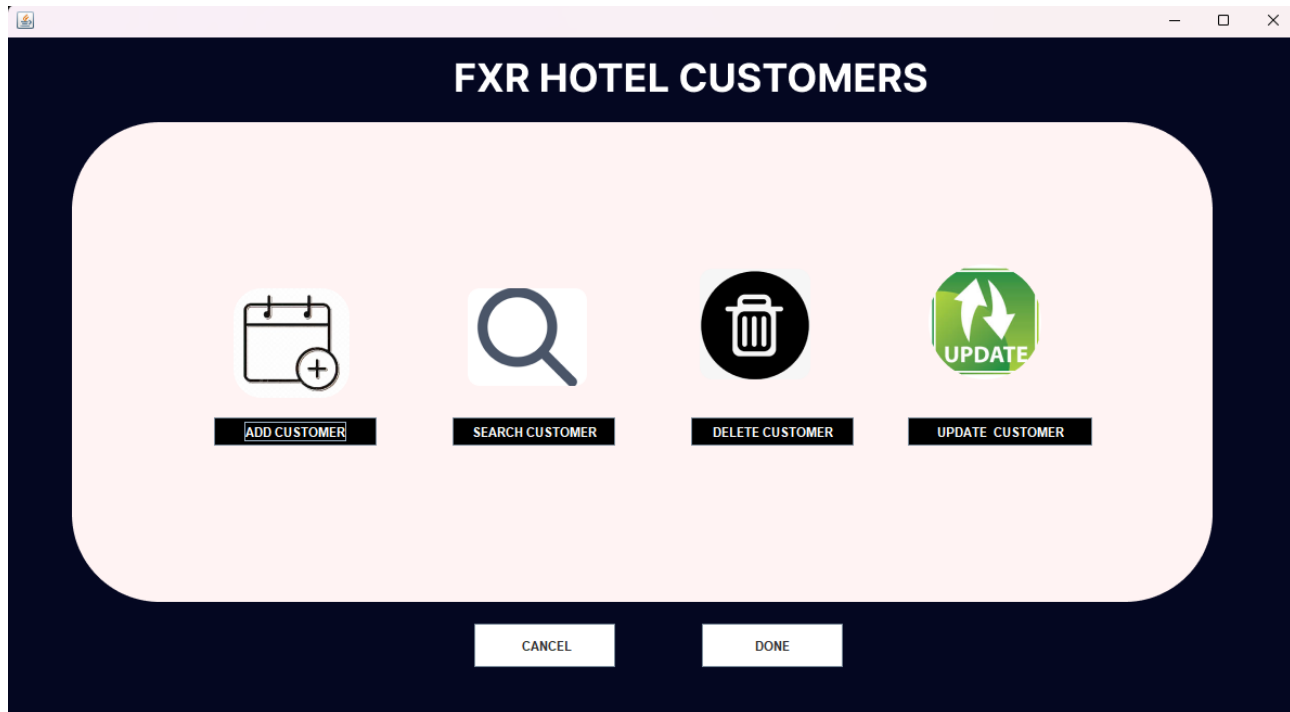
Fig: Customer
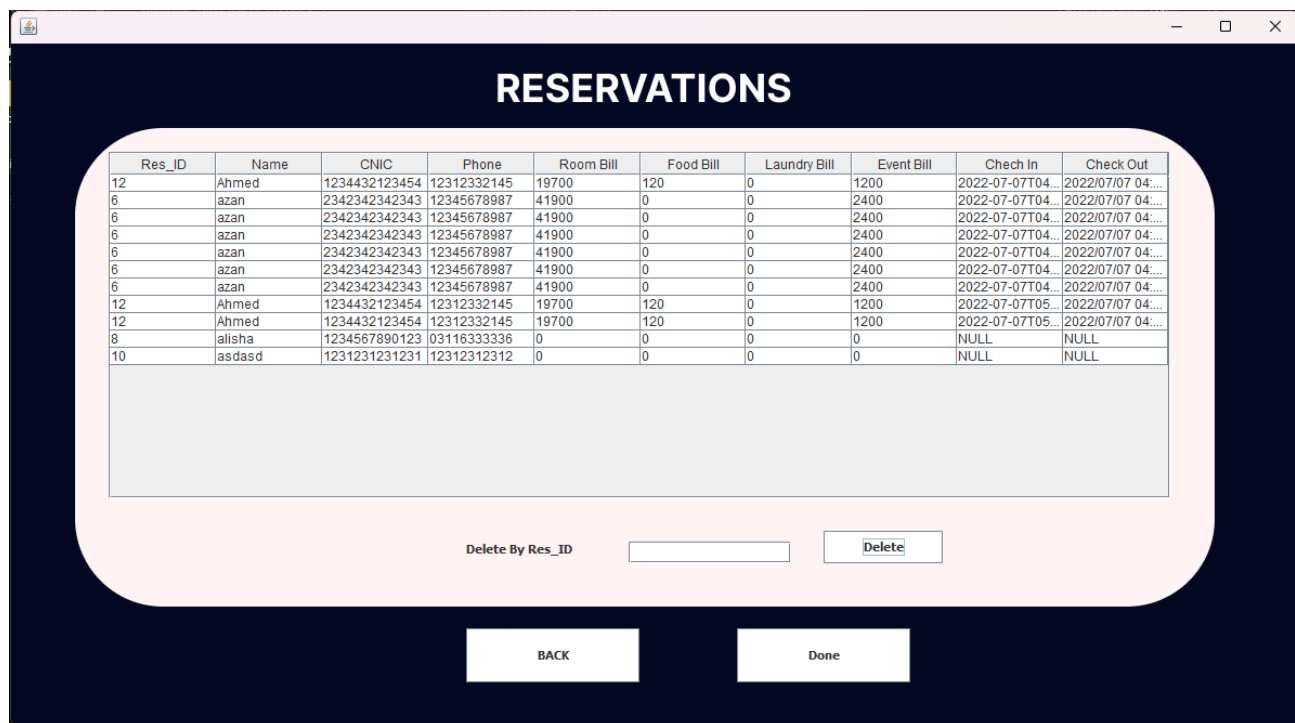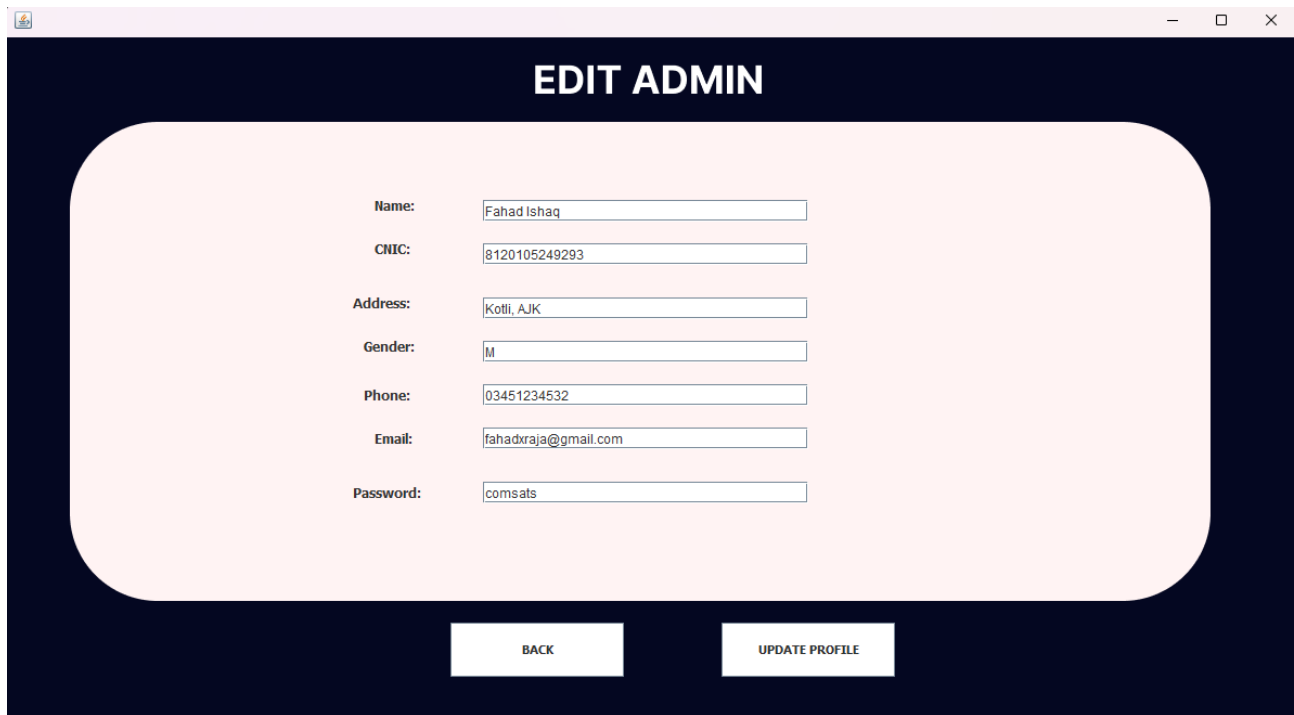
Fig: Reservations

EDIT ADMIN

Name:	Fahad Ishaq
CNIC:	8120105249293
Address:	Kotli, AJK
Gender:	M
Phone:	03451234532
Email:	fahadxraja@gmail.com
Password:	comsats
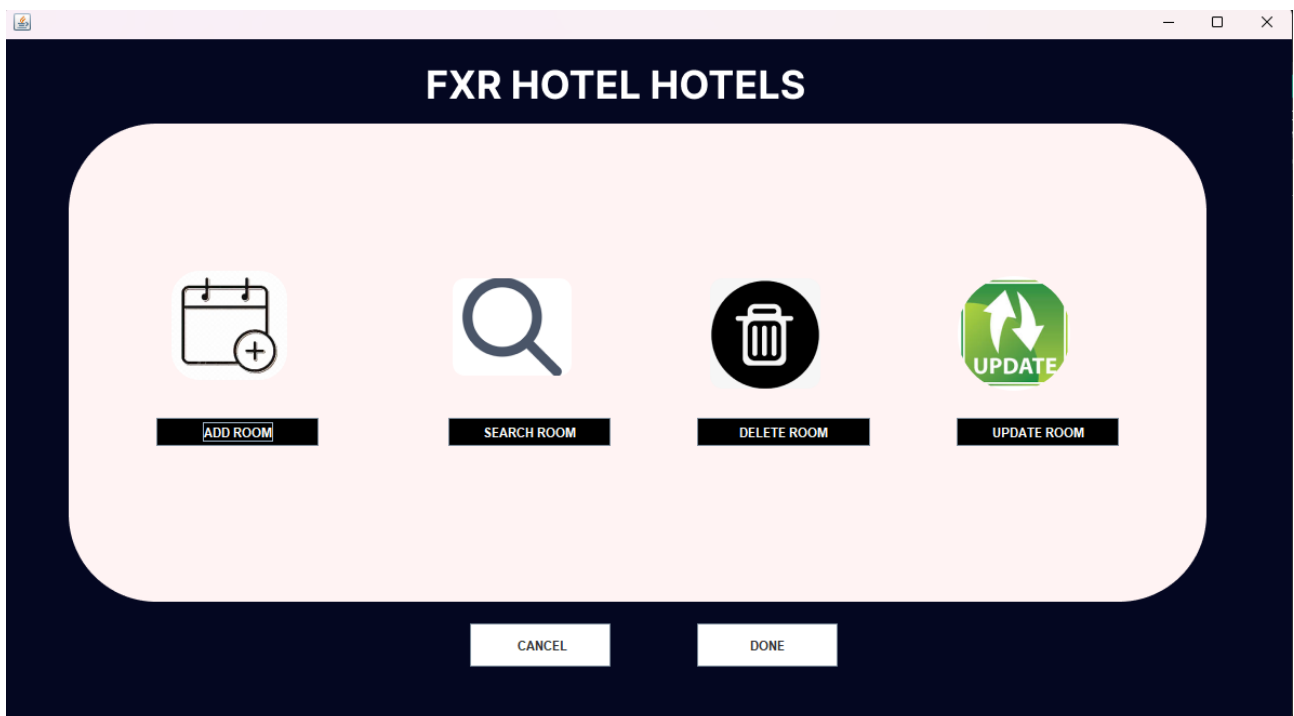
BACK   UPDATE PROFILE

Fig: Update Profile

FXR HOTEL HOTELS

ADD ROOM   SEARCH ROOM   DELETE ROOM   UPDATE ROOM

CANCEL   DONE
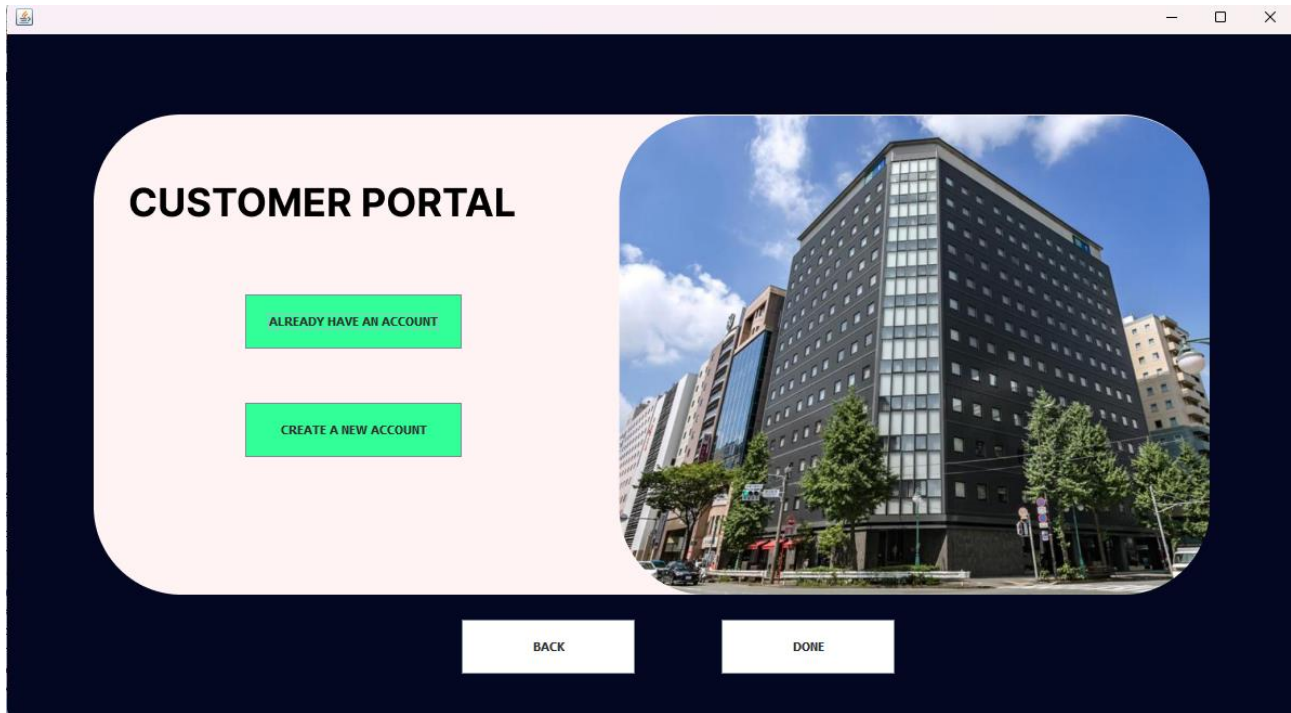
Fig: Rooms Menu
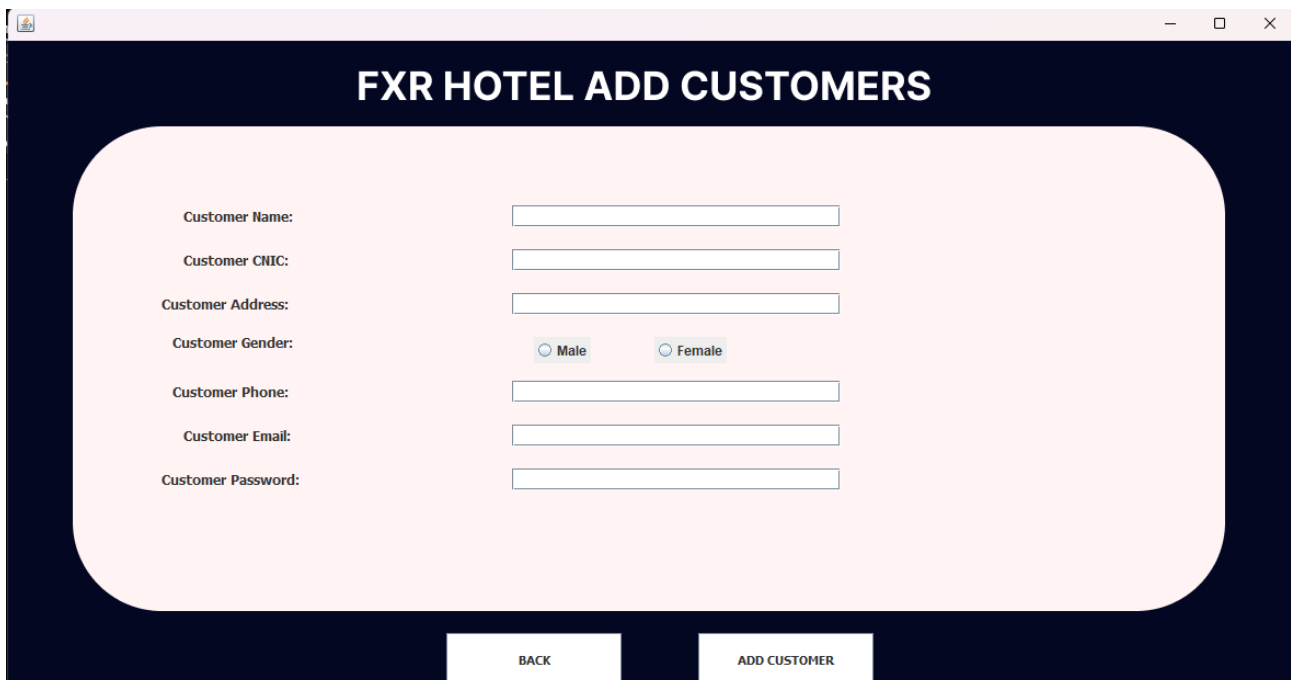
9.2 Customer Panel:

9.2.1 How to login:

If an customer wants to login, he will login as customer shown in below Figure , show that email and password field must be filled with correct information. Through Login button, system will validate the email and password and will show whether login is successful or not.
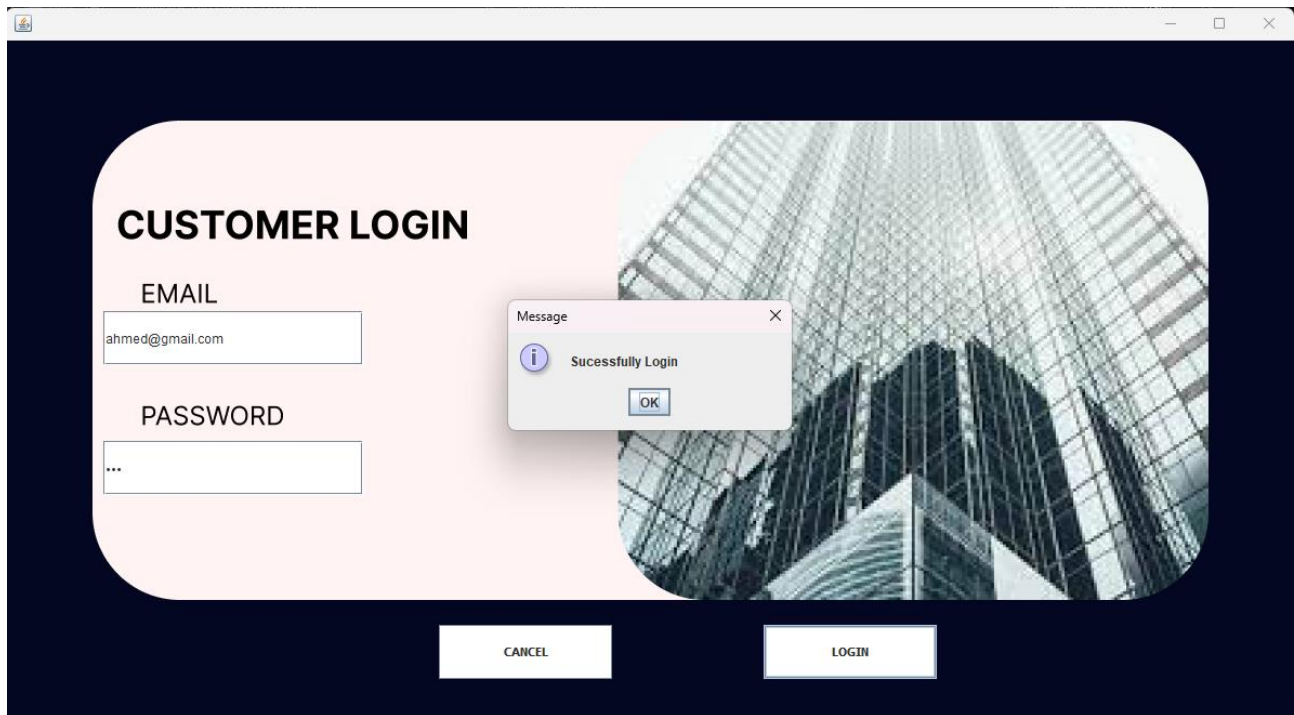
9.2.2 Main Menu

After Successful login, the customer will be shown the main menu as shown below in figure. If User want to choose any option, he will click the button and will be shown the next window.
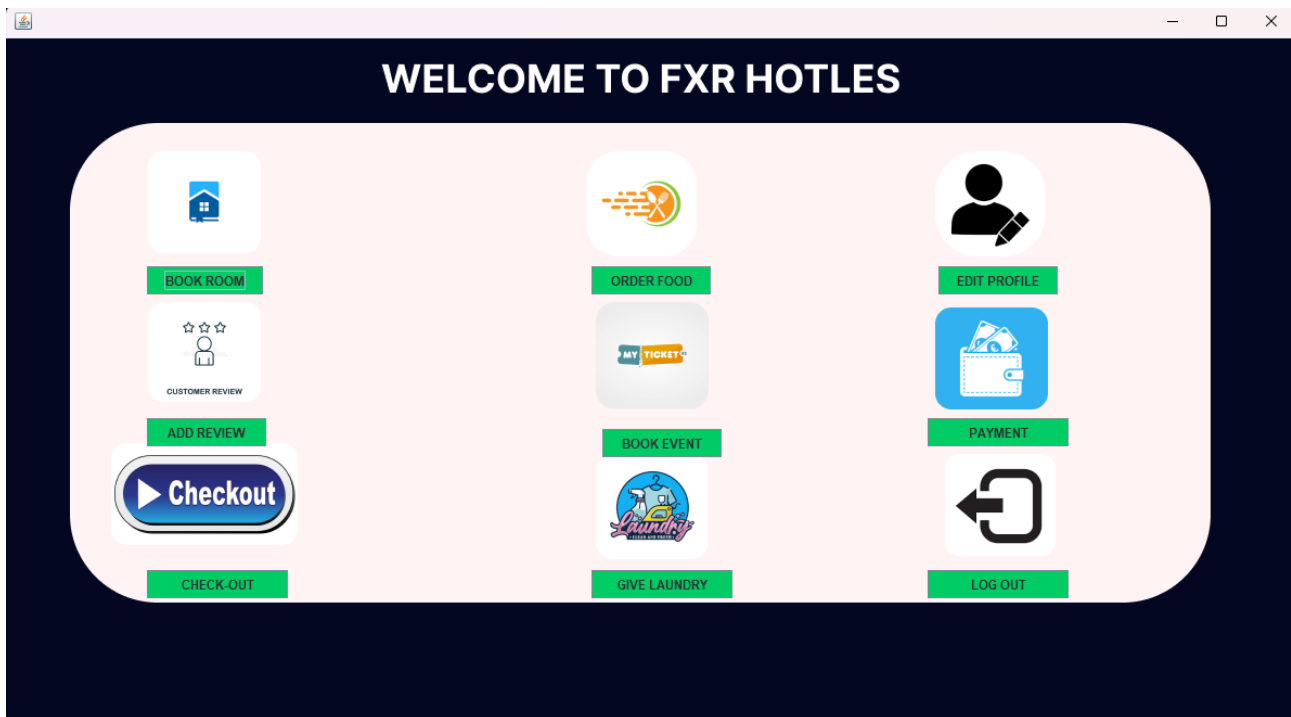
10. Challenges Faced:

- Connection of oracle database with net bean is quite complex and time taking procedure
- Net beans gives much complex error when we connect to oracle databas

11. Conclusion

Though Hotel Management System is a vast project, we have tried our best to cover all the core modules and features that would be able to give an overview of management of hotel. Our project basically focuses on database area. Customer and Employees details are managed by administrator and can be searched when needed. Administrator control the entire system while customer can avail facilities of booking a room, acquiring room services etc. This system provides a way in which every service is managed in an effective way.

12. References

- https://www.revfine.com/hotel-management/#:~:text=Hotel%20management%20involves%20the%20management,management%2C%20housekeeping%2C%20and%20accounts.