



Proposed to:
Dr Sher Muhammad

HOTEL MANAGEMENT SYSTEM

OOP Final Project Report

Group H

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ASSIGNMENT

Introduction:

Computer Science and Information Technology has changed the world order completely, especially in the last 3 decades. Almost every field of life includes ICT in anyway. This project is designed for hotel management but this model can also implement on different types of hospitality sectors like hostel and mess. This is a sample project and logic which can be implemented in many different ways described below in major outcome section.

Our Inspiration Model:

We are inspired by OYO India and Airbnb. OYO started with 1 property in 2013, has now owns thousands of properties in multiple countries. It's just due to the technology. Now a customer can book its destination across the globe through gadgets. Airbnb also serves the same industry with little amendments.

There multiple other start up's working in this space and making a different. We have tried to solve the problem of our society.

About Project:

We have developed an application for better hotel management. As with development of time we have seen conversion of traditional management to digital pattern. So, our application is basically a hotel management system.

This system serves both customer and administrator. Customer will be able to reserve a book with additional services. There system will ask the customer to select room type from four given types. The customer also has an option to cancel its booking if he has recently made a booking. The administrator can be able to have management of customer data accessible at any time.

This model has used the major principle of Java Object Oriented Programming, Exceptional Handling, Swing and AWT Graphical User Interface, and database.

Project Methodology:

The technical analysis of project methodology in Java is:

1. In main method

The application will ask user to enter its user name and password. (Frame containing 2 Buttons)

Firstly, system will ask user type and take input

- customer view
- Administrator view

2. If user enters customer then application will ask the user for

- Room Booking
- Cancel Booking

As user choose, Room Booking then System will show a form that contains:

- Name
- Last Name
- CNIC
- Phone No
- City
- Country
- Room Type (Menu Button)

System will show the user list of the rooms like;

- ✦ Standard room (2 Person, Price:60\$)
- ✦ Deluxe room (Executive class, Price:120\$)
- ✦ Suit room (Include 2 Rooms with Kitchen
Price:200\$)
- ✦ Quad room (Room of 4 Person, Price:90\$)

- Days

After filling this data, the system will give a review of all data in a Pop Up box. As user press Submit button, The Pop Up box will disappear and data will store permanently.

As User clicked on the cancel reservation button, then a frame window will load containing these fields:

- Name
- Last Name
- CNIC

If the given data matches with database then the required data will be removed otherwise application will show an error that data doesn't found.

3. If user enters administrator then System will ask the user for password (will be provided for checker), if the password is right then system will proceed and show database .

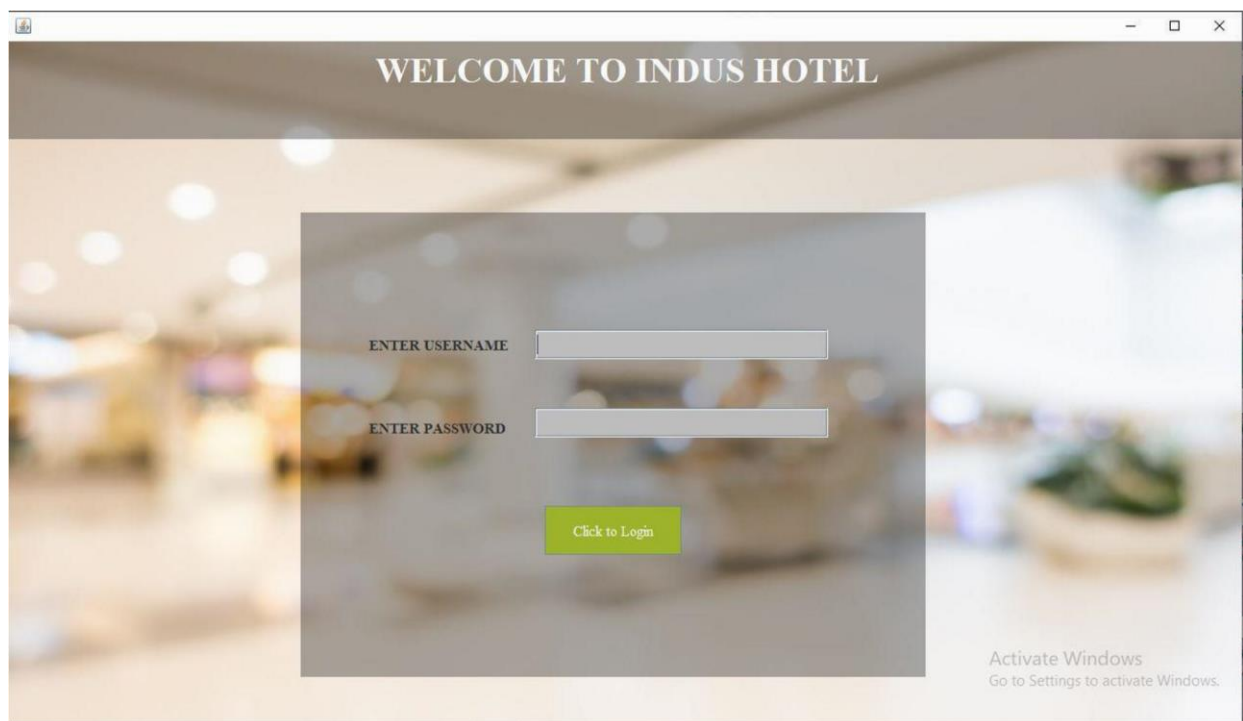
Every step will have specific requirement for data, if provided wrong then system will through exception and handle it.

The frame is developed by using Java Swing and Java AWT kit. There are multiple images used in the project which will provide user a great graphical experience.

There are multiple button used in the project. Every window has back button that will make user back to previous screen.

Execute Screen Shots

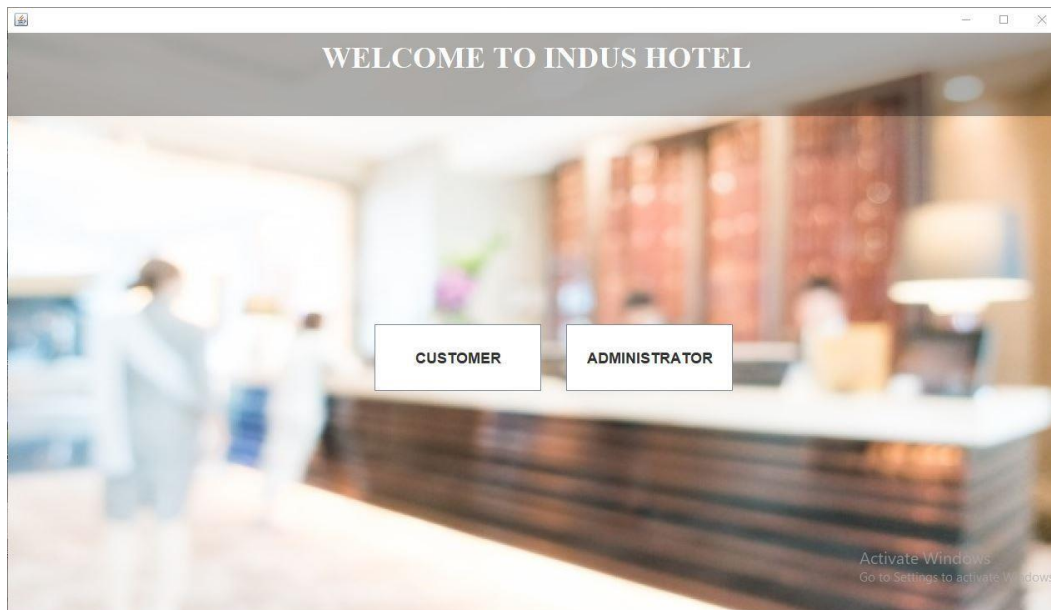
1.



The above image is the first view of our application. It's showing two field and a button, firstly username and secondly password and finally log in button. The user can type its name and then password in order to proceed further.

In this case you can type your name and then type password. Well, we haven't set any password so whatever username and password you are typing the system will proceed to next screen.

2.

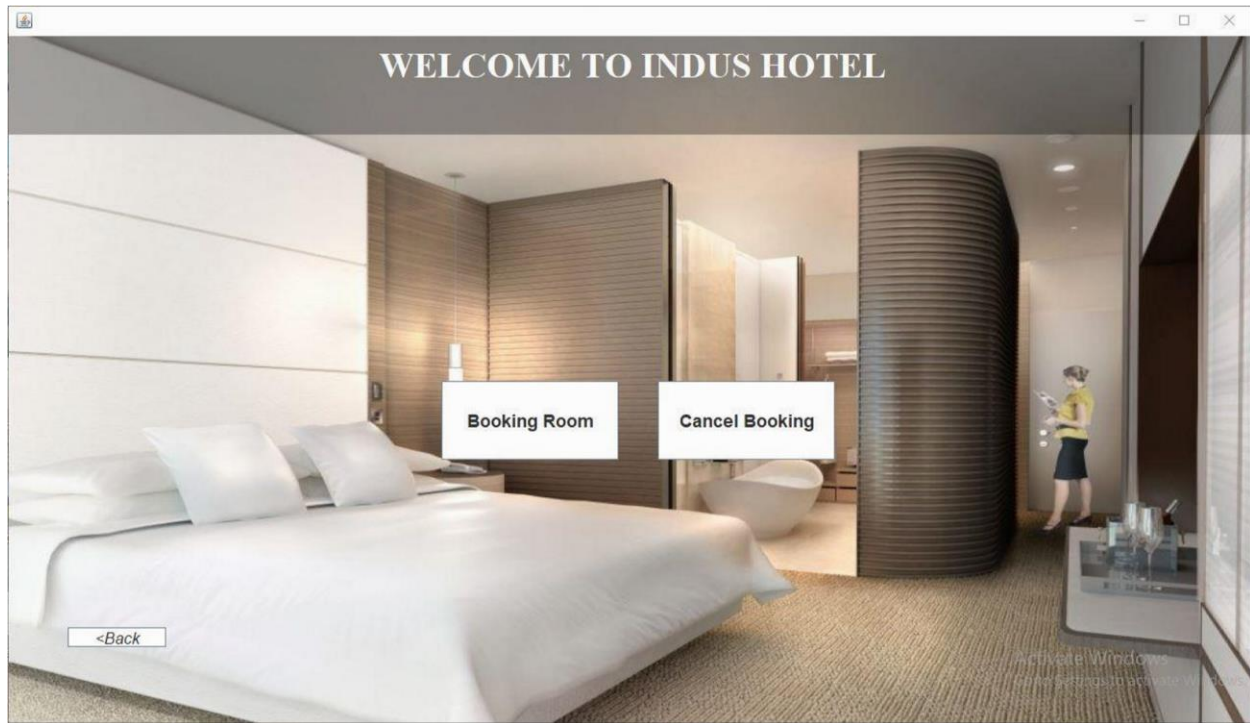


As you have done with username and password then this window will appear after clicking on Log In button. Now, in this window the application is showing you 2 buttons. This window will lead and discriminate user as administrator or as a customer. Both of them have different functionalities as described below:

1.Customer: This button will lead you toward another window where you have facility to book your room and cancel any booking.

2.Administrator: This button will lead you to the administrator window where you have to log in and have right as and facilities as an administrator.

3.

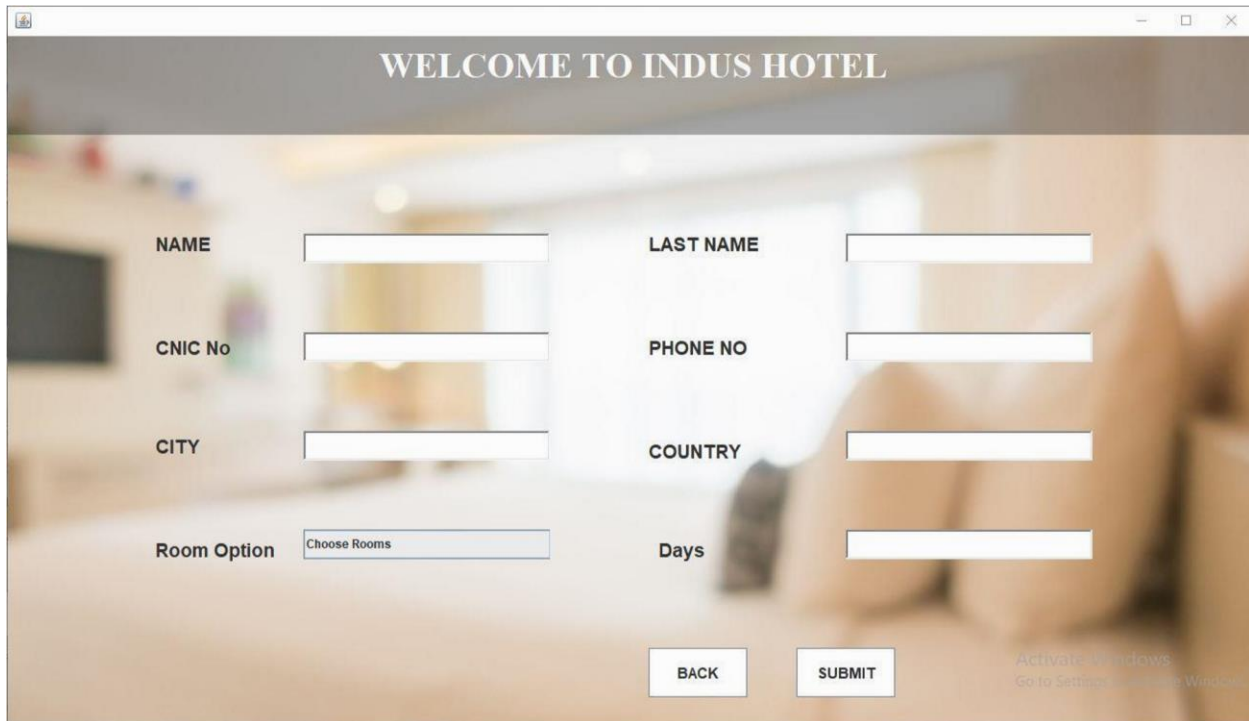


Suppose we have clicked on customer button. After clicking on customer button, we have the above window showing again two more buttons. These buttons will lead you to forms for booking or cancel booking.

1.Booking Room: This button will lead you to form window in order to book your room and the application will store in its database which can be accessed further. This form has multiple fields and exceptions in order to get the best and accurate data.

2.Cancel Booking: This button will lead you to a window with multiple text fields, you have to fill these fields so the application will check the data availability and delete if available.

4.



WELCOME TO INDUS HOTEL

NAME

LAST NAME

CNIC No

PHONE NO

CITY

COUNTRY

Room Option

Days

BACK SUBMIT

Activate Windows
Go to Settings to activate Windows

This is the basic form appears as you click on Booking Room button. This data will be fill by user and will permanently store in data base. This form contains a menu button which will allow user to select room type from given types and as user select, it will show you all services and price of that type of room. There are multiple exceptions used in this form, all of these with their associated fields are described below:

- Name
- Last Name
- CNIC No: Must be 13 numbers without slash otherwise application will throw exceptions.
- Phone No: Must be 11 numbers without slash otherwise application will throw exceptions.
- City
- Country • Room Type:
- Days

5.

WELCOME TO INDUS HOTEL

NAME **LAST NAME**

CNIC No

CITY

Room Option **Days**

Message

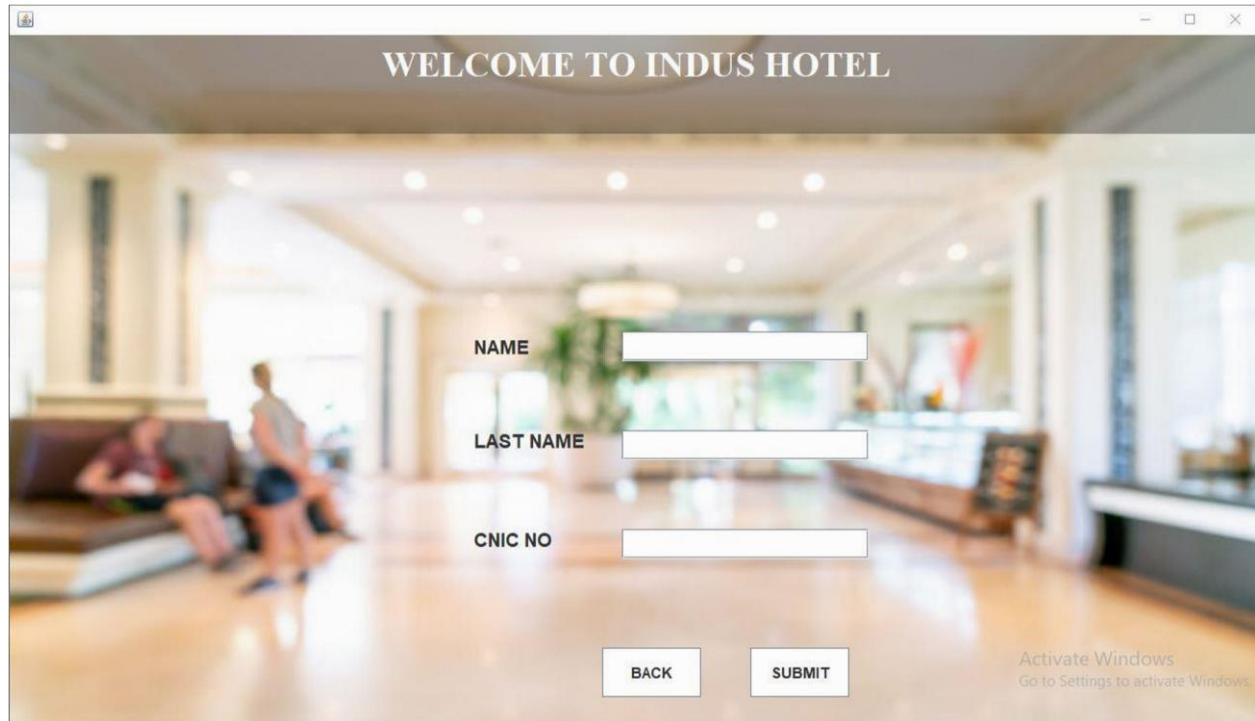
Name = Prem
Phone Number = 03322514972
CNIC No: = 4410145678883
City = Mithi
Country = Pakistan
You have reserved this room for 10 days
THANKS FOR BOOKING THE QUAD ROOM
Total price of room for 10 days is = 45000

BACK **SUBMIT**

Activate Windows
Go to Settings to activate Windows.

When the user has entered all the data correctly as per requirement then the system will show this menu .It's basically a final review of all the entered data, now as user press ok the room will reserved.

6.



WELCOME TO INDUS HOTEL

NAME

LAST NAME

CNIC NO

BACK SUBMIT

Activate Windows
Go to Settings to activate Windows

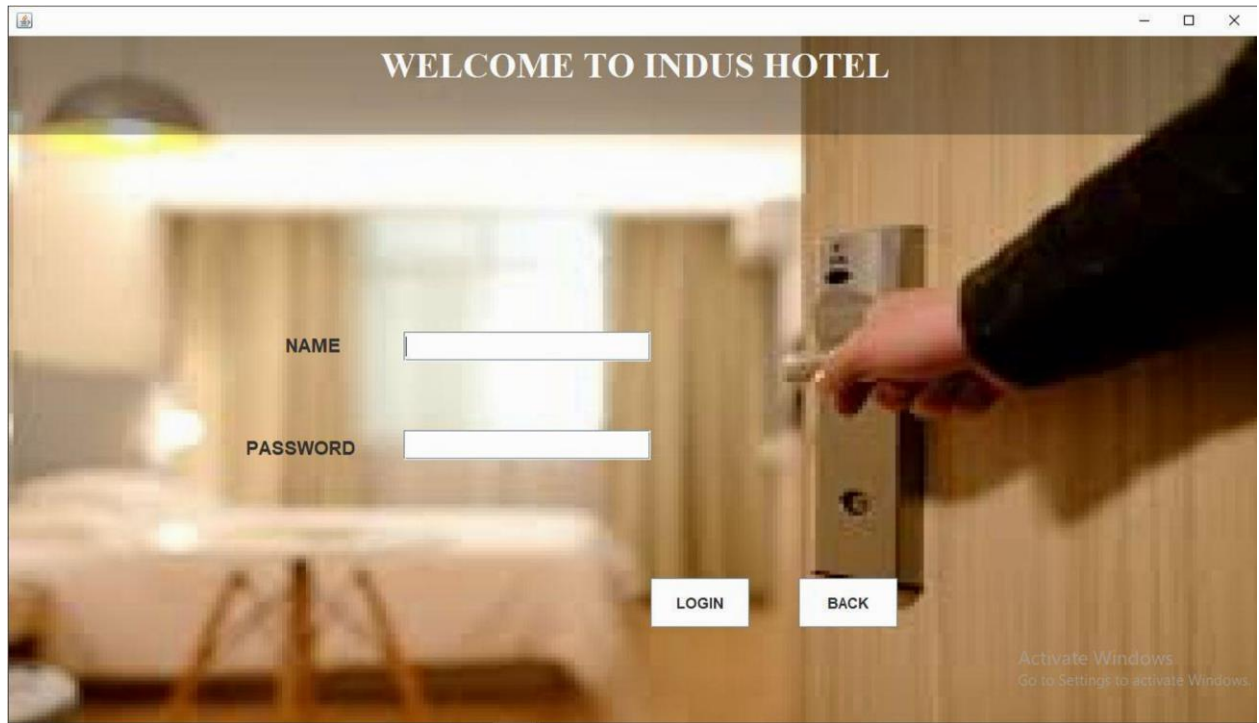
Suppose we have used Cancel Booking Button, now Cancel Booking Window is shown. The user can cancel its booking by using this window. The application will search the data given by user in database, if found then reservation will cancel and data will be removed.

There are these fields in this window:

- Name
- Last Name
- CNIC

If given data will not match with the data in database, then a pop up window will appear which shows that the given data is not found.

7.



This is the administrator's window, it will have authentication functionality. If user has enter the correct password and name then the system will further proceed and show him database. The database will contain a table in which all the data of the user will be displayed.

- Name
- Password : "password" is the code to further (it's fixed).

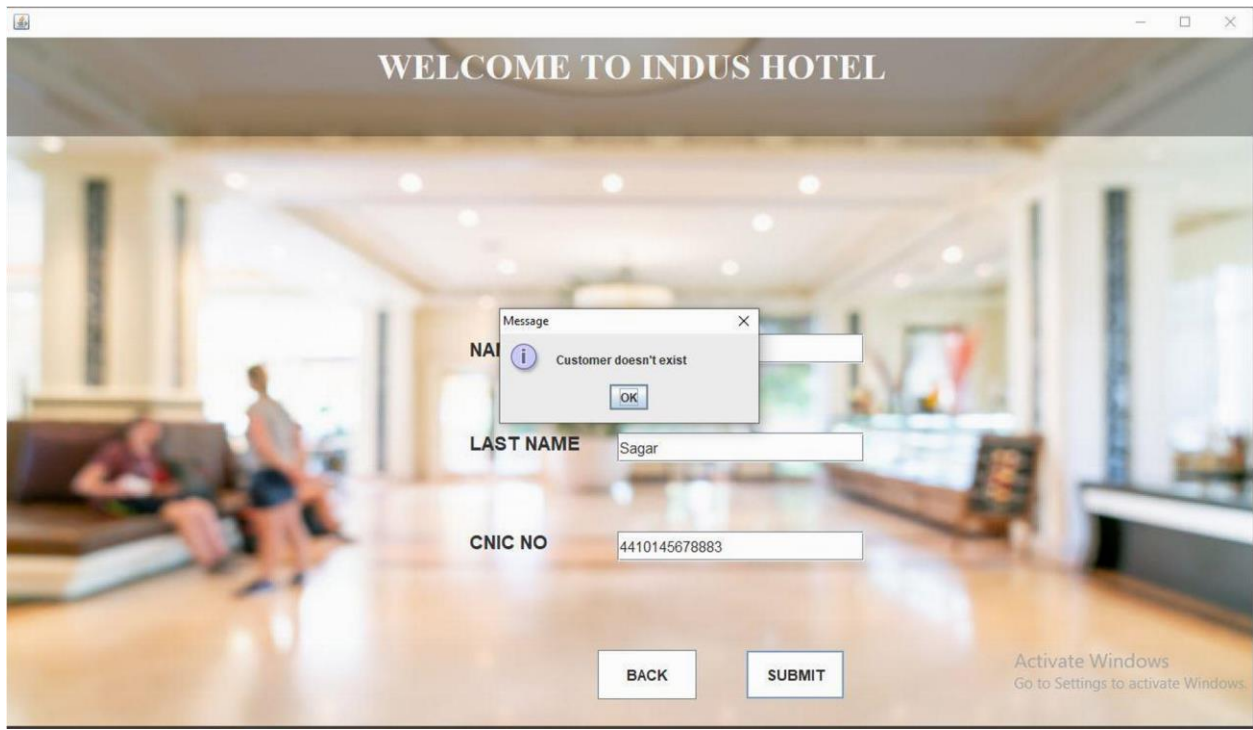
8.

Name	Last Name	CNIC	Phone #	City	Country	Date
Salman	Tanveer	3130145...	0341164...	khanpur	pakistan	5
Salman	Tanveer	3130145...	0341164...	khanpur	pakistan	5

This is the view of database, which stores the data of all registered customers.

Once data is stored here, it's permanently. The customer can delete data by using delete sql query and data will remove from table.

9.



If the user enter data to cancel booking and it not contain that data , then this error will be shown. It will show “Customer didn’t exist”.

Learning Outcome:

1. We are able to design a real life application, how to think on a real life problem and implement our programming concepts on the problem.
2. Development of application by using main core principal of Object Oriented Programming, Exception Handling, Java AWT and Swing and Database.
3. We learnt that how to implement interfaces by using different interface of rooms.
4. We are able to develop Graphical User Interface by AWT and Swing and used multiple options from them like Button ,Text Field, Text Area, Panel, and Table.
5. We are able to learn about the Database ,we studied many databases like XAMP, Access and MYSQL. After analyzing all the options we used SQL database for our projects.
6. We learnt the database connectivity and dumping/exporting of database.
7. We learnt about the error solving and patience while doing large scale programming.
8. We learn about team work with impromptu team and specially working remotely.
9. We learn about project presentation through video.
10. We learn about the report writing as initial writing and final report writing.

Conclusion:

This Project will be helpful for users as it provides great simple experience to them and base on basic principle of OOP. This project will help the user to use system more efficiently and manage logs digitally.

This project contains is the example of problem solving strategy in real life by using basic ideas and implementation within limited resources.

Link for project files and video:

https://drive.google.com/drive/folders/1ZwcDxUeDIWuM_1eEJqGJAkpKv6kQR2TI?usp=sharing