

HOTEL ROOM BOOKING SYSTEM

MINOR PROJECT REPORT

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SCHOOL OF COMPUTING

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SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

(Under Section 3 of UGC Act, 1956)

BONAFIDE CERTIFICATE

Certified that this minor project report for the course **21CSC203P ADVANCED PROGRAMMING PRACTICE** entitled in "HOTEL ROOM BOOKING SYSTEM" is the bonafide work of **T.Sri Rangasuthan(RA2211003011319)** and **Vishnu Prasanth.M(RA2211003011326)** who carried out the work under my supervision.

A handwritten signature in blue ink, appearing to be 'V. Arulalan'.

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ABSTRACT

The Hotel Room Booking System project aims to streamline and enhance the process of reserving and managing hotel accommodations. In an era where travel and hospitality are integral components of modern life, the efficient functioning of this system plays a pivotal role in ensuring customer satisfaction and operational excellence for hotel establishments. This comprehensive software solution leverages cutting-edge technology to provide an end-to-end reservation platform, integrating user-friendly interfaces for guests and robust management tools for hotel administrators. The Hotel Room Booking System offers a seamless and intuitive booking experience for guests, allowing them to browse available rooms, view detailed information, select specific room types, and make secure reservations with ease. It provides a range of search and filtering options, enabling customers to tailor their preferences to find the ideal accommodations.

ACKNOWLEDGEMENT

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1. INTRODUCTION

1.1 Motivation:

The hospitality industry is constantly evolving to meet the changing needs of travelers. In today's digital age, travelers expect to be able to book hotel rooms quickly, easily, and securely online. A hotel room booking system can help businesses meet this demand by providing a user-friendly platform for guests to make reservations.

1.2 Problem Statement:

Many hotels still rely on manual processes to book rooms, which can be time-consuming and error-prone. This can lead to lost reservations, frustrated guests, and a decline in revenue. A hotel room booking system can help to automate these processes, freeing up staff to focus on other tasks and providing guests with a more convenient booking experience..

1.3 Challenges:

There are a number of challenges associated with developing and implementing a hotel room booking system. These include:

- **Integrating with existing systems:** The booking system must be able to integrate with the hotel's existing property management system (PMS) and other relevant systems.
- **Ensuring security:** The system must be secure to protect guest data and prevent fraud.
- **Providing a user-friendly interface:** The system must be easy to use for guests of all ages and technical abilities.
- **Managing inventory:** The system must be able to accurately track room availability in real time.
- **Processing payments:** The system must be able to accept payments from a variety of sources.

1.4 Objective:

The objective of the hotel room booking system is to provide a comprehensive, user-friendly and secure platform for customers to book hotel rooms online. This system aims to simplify the booking process by enabling users to browse hotel rooms, check availability, make payments and receive confirmations all from one platform. The system's key objective is to enable seamless interaction between customers and hotels by providing real-time room availability and accessible booking options round the clock.

The hotel room booking system also improves the hotel's operational management by automating several processes such as reservation management, customer booking management, payment processing and room availability tracking. This automation reduces the chances of manual errors as the system updates in real-time, thereby increasing efficiency and productivity. The system's reporting feature also provides valuable insights into room occupancy, available rooms and booking history, which can guide the hotel's strategic decision-making.

Another important objective of the hotel room booking system is to enhance security and privacy by providing a secure payment gateway and user authentication system. The system uses encryption technology to ensure that all sensitive information such as credit card details remains confidential and secure. By providing a secure and reliable system that prioritizes user privacy, the hotel room booking system helps build trust and confidence among users.

Overall, the primary objective of the hotel room booking system is to provide a seamless, efficient, and satisfying experience for hotel customers while helping hotel managers streamline operations and grow their business. With this system, hotels can benefit from increased customer engagement, improved efficiency and productivity, and better decision-making driven by actionable data insights.

2. REQUIREMENTS

2.1 Requirement Analysis

From the given scenario, we draw the following requirements:

1. User Management:

The system should have a user management module that will allow the hotel staff to manage their user profiles and access levels. The system should have different access levels for hotel staff, managers, and administrators.

2. Room Management:

The system should allow hotel staff to manage room availability, including adding, deleting, and updating rooms. The system should store all the necessary details about room features such as room size, bed type, and facilities.

3. Booking Management:

The system should allow customers to book rooms and make payments online. The system should also allow hotel staff to manage customer bookings, including updating booking details, canceling bookings, and processing refunds.

4. Availability Management:

The system should keep track of room availability and update it in real-time. The system should also provide reports on room occupancy, available rooms, and booking history.

5. Payment Management:

The system should allow customers to make payments through various payment gateways. The system should also provide an invoice after the payment is complete.

2.2 Software Requirement

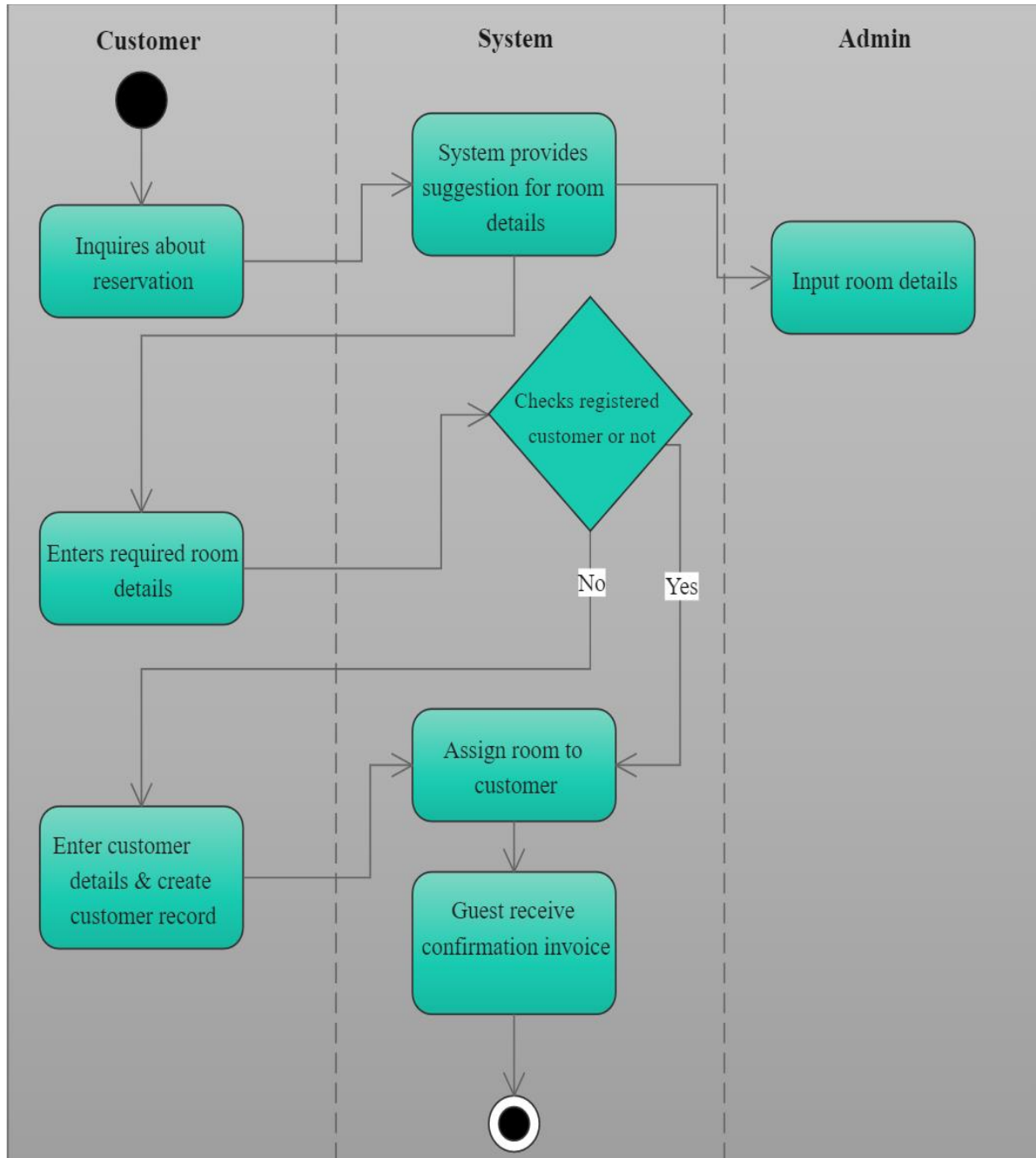
High-level Language (Frontend): Java,Python

Graphical User Interface (GUI): Java Swing,Python Tkinter

Backend Database: MySQL

3. ARCHITECTURE AND DESIGN

The flowchart is as follows:



4. IMPLEMENTATION

Implementing database Connection for java code:

```
Enter password: *****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 54
Server version: 8.0.20 MySQL Community Server - GPL

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use hotel;
Database changed
mysql> show tables;
+-----+
| Tables_in_hotel |
+-----+
| customer        |
| room            |
+-----+
2 rows in set (0.00 sec)

mysql> select * from room;
+-----+
| roomNo | roomType | bed | price | status |
+-----+
| 101    | AC       | Single | 500   | Not Booked |
| 102    | AC       | Double | 1200  | Booked     |
| 103    | AC       | Triple | 2000  | Not Booked |
| 104    | non-AC   | Double | 900   | Booked     |
| 105    | non-AC   | Triple | 1000  | Not Booked |
+-----+
5 rows in set (0.00 sec)

mysql> select * from customer;
+-----+
| id | name | mobileNumber | nationality | gender | email | idProof | address | checkIn | roomNo | bed | roomType | pricePerDay | numberOfDaysStay | totalAmount | checkOut |
+-----+
| 1  | vishnu | 1234567890 | India | Male | vishnu@gmail.com | ID123 | urapakam, india | 2023/11/04 | 101 | Single | AC | 500 | 1 | 500.0 | 2023/11/05 |
| 2  | ranga | 1234567809 | india | Male | rnaga@hotmail.com | ranga123 | hansa, india | 2023/11/05 | 102 | Double | AC | 1200 | NULL | NULL | NULL |
| 3  | ead4 | 76543 | india | Male | fdsand@gmail.com | id345 | dubai | 2023/11/07 | 103 | Triple | AC | 2000 | 1 | 2000.0 | 2023/11/07 |
| 4  | maneesh | 12435678 | africa | Male | maneesh@gmail.com | maneesh123 | africa | 2023/11/08 | 104 | Double | NON-AC | 900 | NULL | NULL | NULL |
+-----+
4 rows in set (0.00 sec)

mysql>
```

Implementing pickle module for python code:

HOTEL MANAGEMENT

LIST OF ALL GUEST

NAMES

AJAY
DEEPAK

DFG
FEGWH

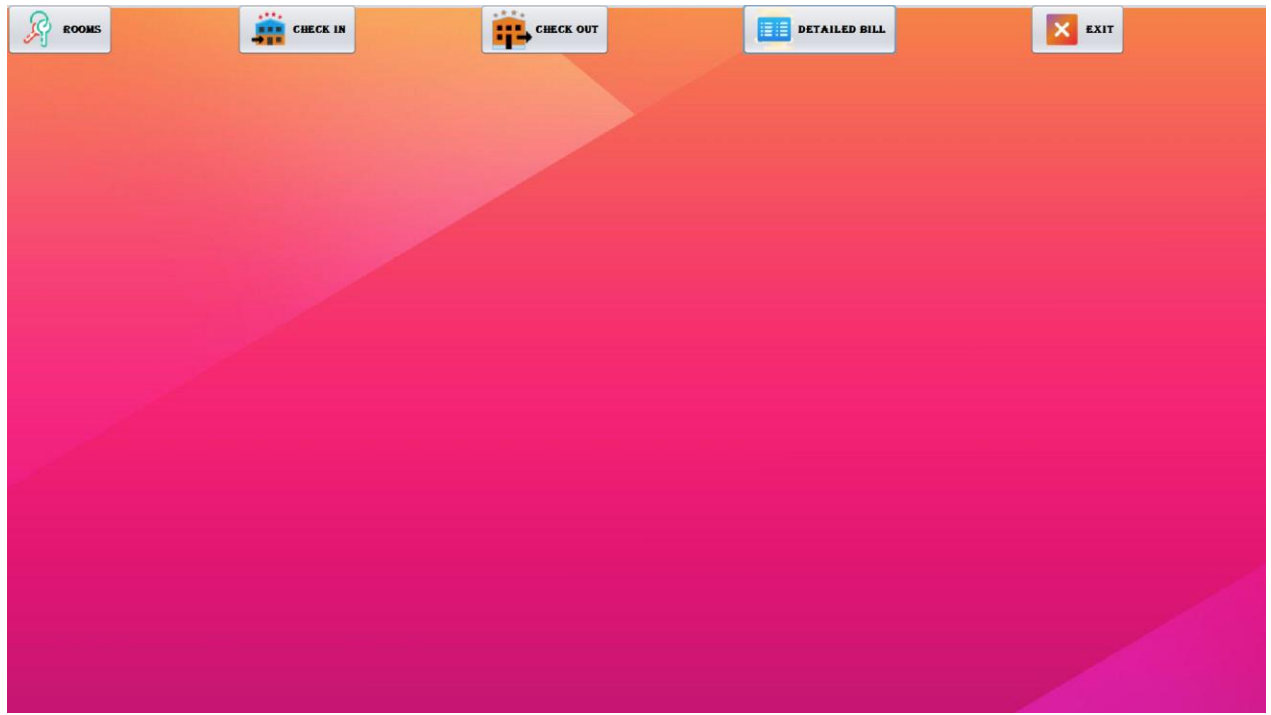
ROOM NO.

8
9
26
1
2
3

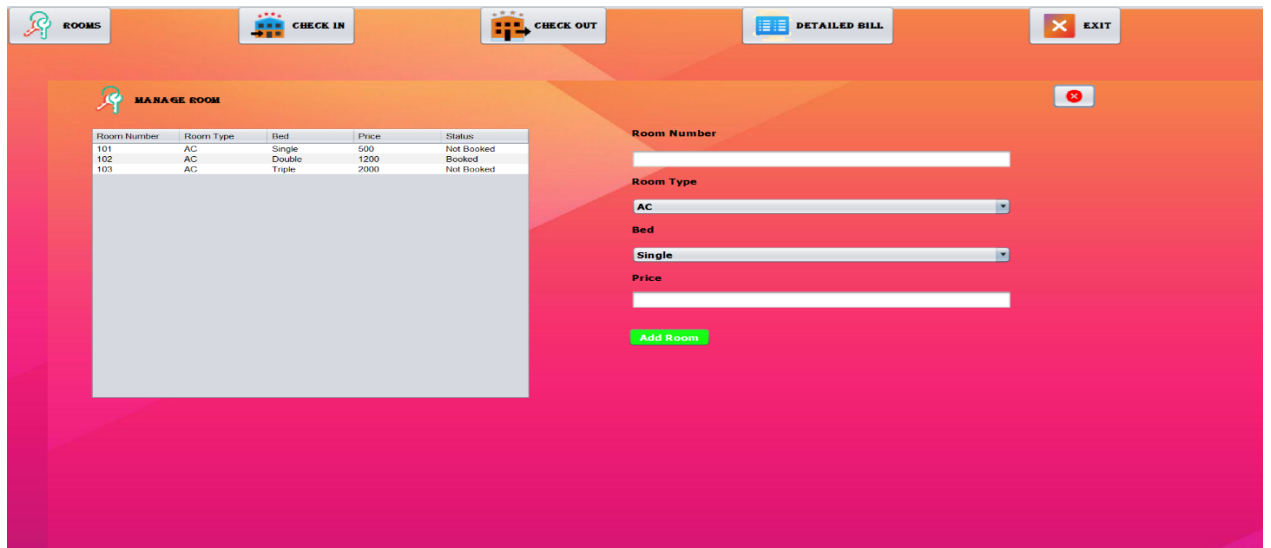
RESULTS AND ANALYSIS

GUI Design for java code:

Page 1: Home Page



Page 2: Rooms page



Page 3: Check In

ROOMS

CHECK IN

CHECK OUT

DETAILED BILL

EXIT

CUSTOMER CHECK IN

Name

Mobile Number

Nationality

Gender

Male

Email

JTextField4

ID Proof

Address

Check IN Date (Today)

2023/11/07

Bed

Single

Room Type

AC

Room Number

Price

Allote Room

Clear

Page 4: Check Out

CUSTOMER CHECK OUT

Room Number

Search

Customer Name

Customer IN Date

Check Out Date (Today)

Customer Mobile Number

Price Per Day

Number of Days Stay

Total Amount to Collect From Customer

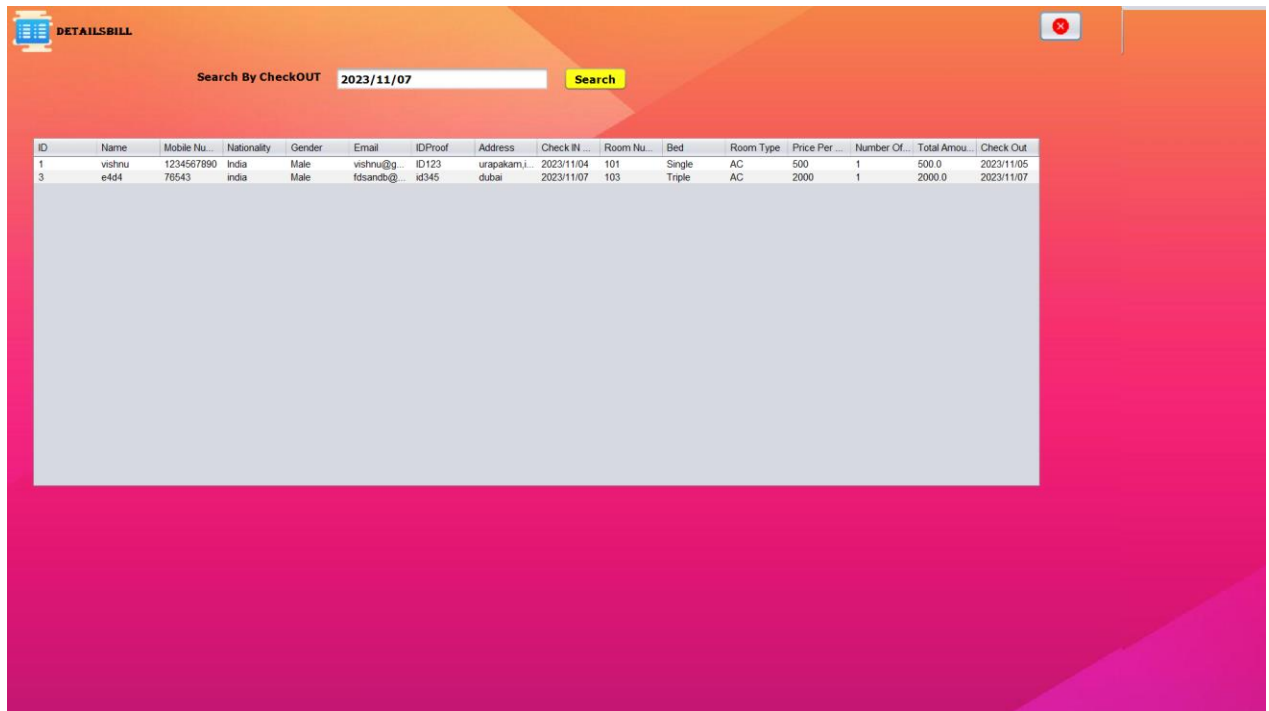
Email

CHECK OUT

CLEAR

| ID | Name | Mobile Number | Nationality | Gender | Email | ID Proof | Address | CheckIn Date | Room Number | Bed | Room Type | Price Per Day |
|----|-------|---------------|-------------|--------|--------------|----------|-------------|--------------|-------------|--------|-----------|---------------|
| 2 | ranga | 1234567809 | india | Male | maga@hotmail | ranga123 | hansa,india | 2023/11/05 | 102 | Double | AC | 1200 |

Page 5: Detailed Bill



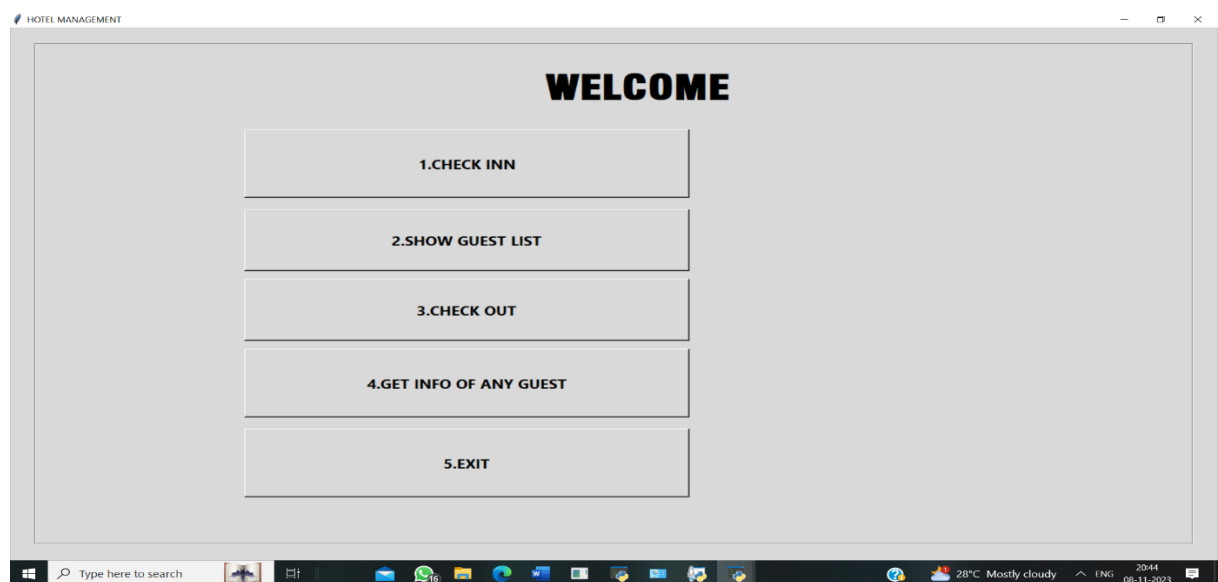
The screenshot shows a window titled "DETAILSBILL". At the top, there is a search bar labeled "Search By CheckOUT" with the date "2023/11/07" entered and a yellow "Search" button. Below the search bar is a table with the following data:

| ID | Name | Mobile Nu... | Nationality | Gender | Email | IDProof | Address | Check IN ... | Room Nu... | Bed | Room Type | Price Per ... | Number Of ... | Total Amou... | Check Out |
|----|--------|--------------|-------------|--------|-------------|---------|-------------|--------------|------------|--------|-----------|---------------|---------------|---------------|------------|
| 1 | vishnu | 1234567890 | India | Male | vishnu@g... | ID123 | urapakam... | 2023/11/04 | 101 | Single | AC | 500 | 1 | 500.0 | 2023/11/05 |
| 3 | e4d4 | 78543 | india | Male | fdsandb@... | id345 | dubai | 2023/11/07 | 103 | Triple | AC | 2000 | 1 | 2000.0 | 2023/11/07 |

Below the table is a large, empty light blue rectangular area.

GUI Design for python :

Page 1:Welcome page



Page 2: Customer Check In

HOTEL MANAGEMENT

YOU CLICKED ON : CHECK INN

ENTER YOUR NAME :

ENTER YOUR ADDRESS :

ENTER YOUR NUMBER :

NUMBER OF DAYS :

CHOOSE YOUR ROOM

☐ DELUXE ☐ GENERAL

☐ FULL DELUXE ☒ JOINT

CHOOSE PAYMENT METHOD

☒ By cash ☐ By credit/debit card

name has been inputed
address has been inputed
invalid input please input a valid mobile number
days has been inputed

Windows taskbar: Type here to search, 28°C Partly cloudy, 09-11-2023

Page 3: Check Out

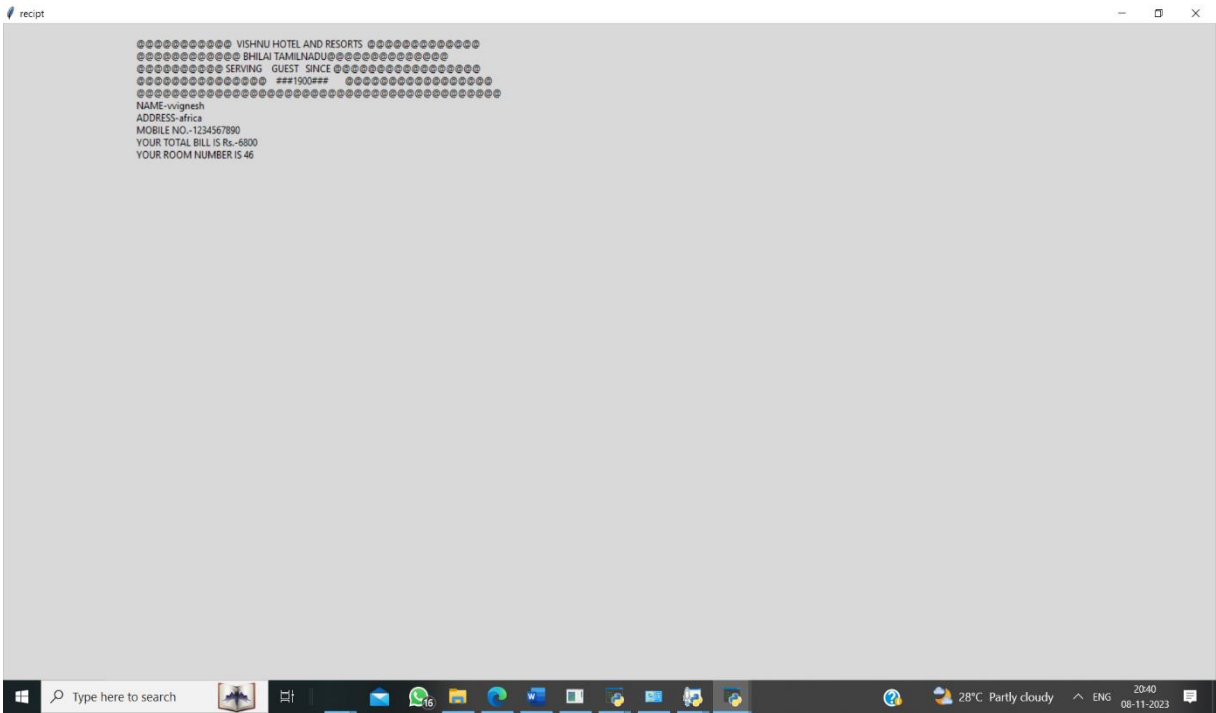
HOTEL MANAGEMENT

ENTER THE ROOM NO. :

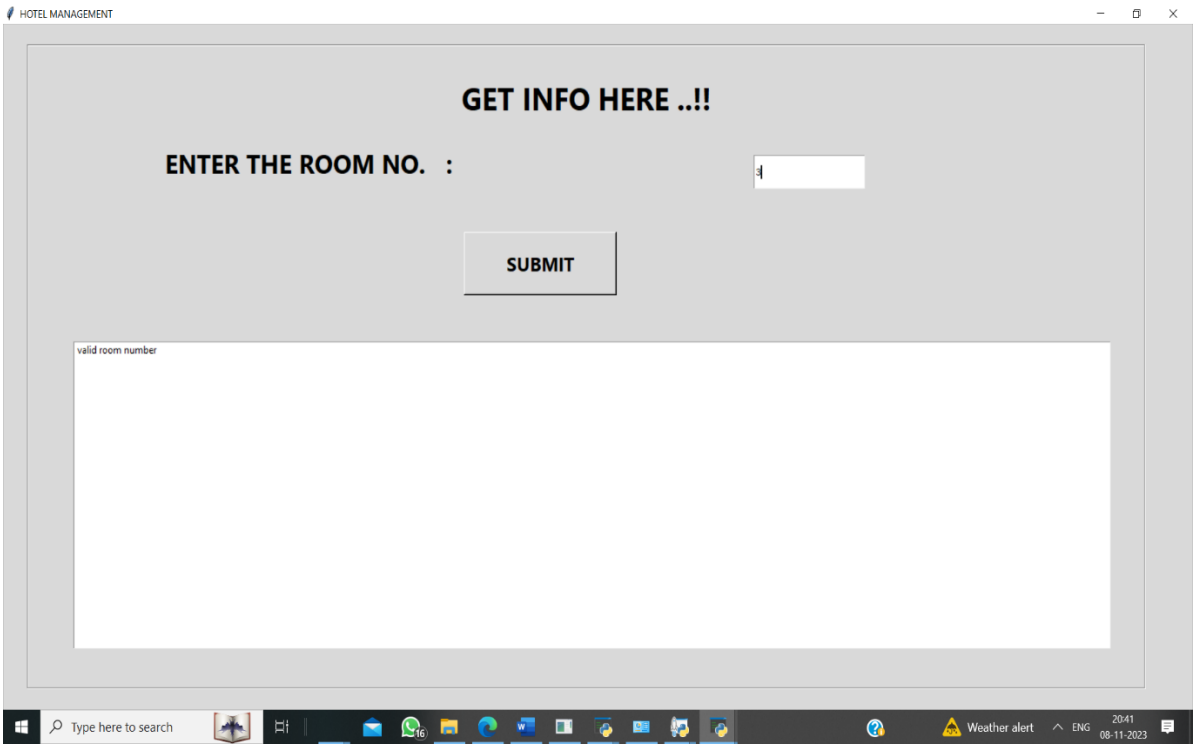
valid room number
THANK YOU RANGA FOR VISTING US

Windows taskbar: Type here to search, 28°C Mostly cloudy, 20:41 09-11-2023

Page 4:Detailed Bill



Page 5:Get info



5. CONCLUSION

In the ever-evolving landscape of the hospitality industry, the Hotel Room Booking System stands as a testament to the synergy between technology and customer service. This system has redefined the way guests book accommodation and how hotels manage their room inventory.

In conclusion, the Hotel Room Booking System has transcended its role as a technological tool; it has become an integral part of the modern hotel management landscape. Its enduring significance lies in its ability to deliver unparalleled customer experiences, optimize hotel operations, and empower hotels to thrive in a dynamic and competitive industry. As it continues to evolve, it promises to remain a cornerstone of the hospitality sector, facilitating the journeys of travelers and contributing to the success of hotel businesses worldwide.

6. REFERENCES

1. [\(49\) Tkinter Beginner Course - Python GUI Development - YouTube](#)
2. Websites like Tutorialspoint and JavaTPoint
3. [\(49\) Java Swing Netbeans IDE GUI Tutorial - 1 - Introduction - Hindi - YouTube](#)