HOTEL ROOM BOOKING SYSTEM

MINOR PROJECT REPORT

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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.

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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

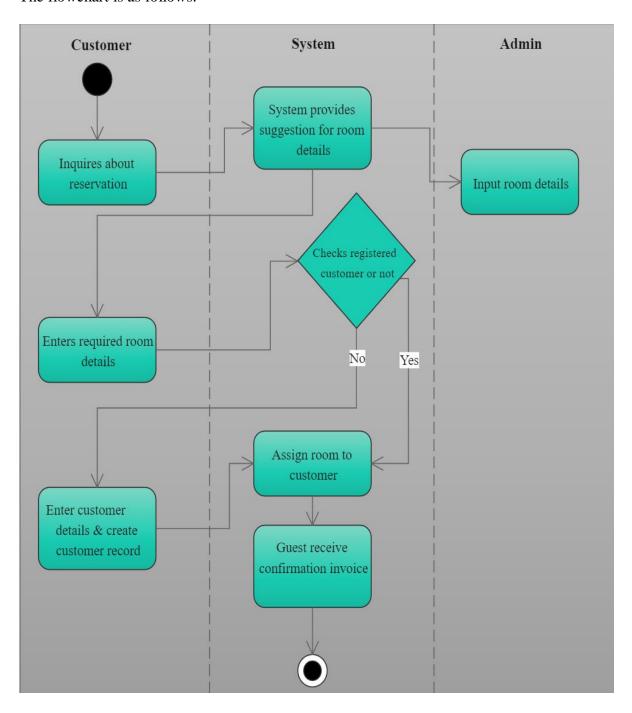High-level Language (Frontend): Java,Python

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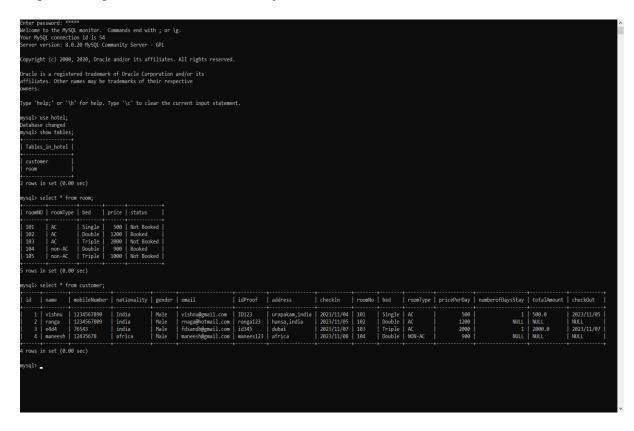
Backend Database: MySQL

3. ARCHITECTURE AND DESIGN

The flowchart is as follows:
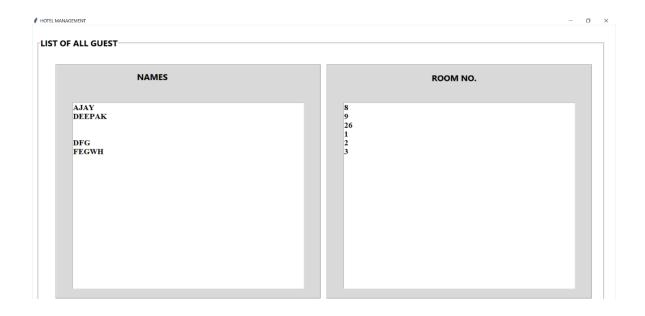
4. IMPLEMENTATION

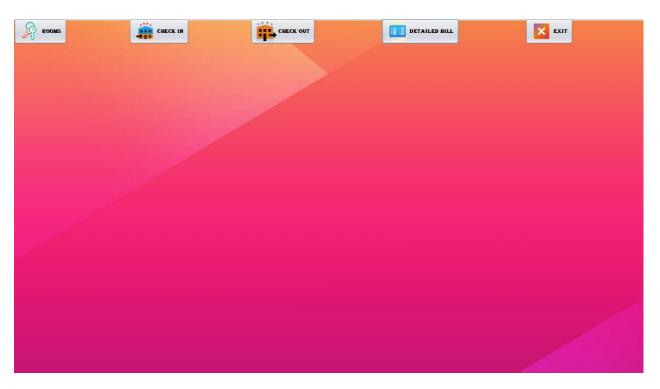Implementing database Connection for java code:
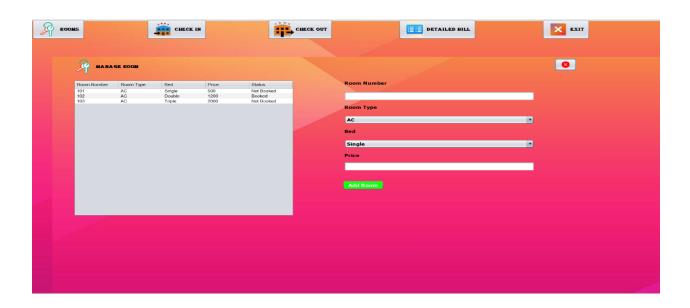

Implementing pickle module for python code:

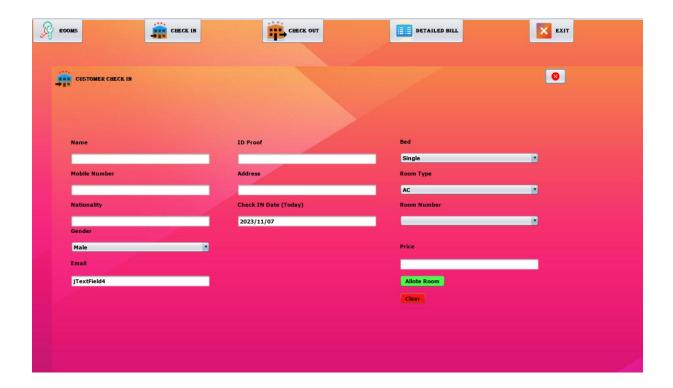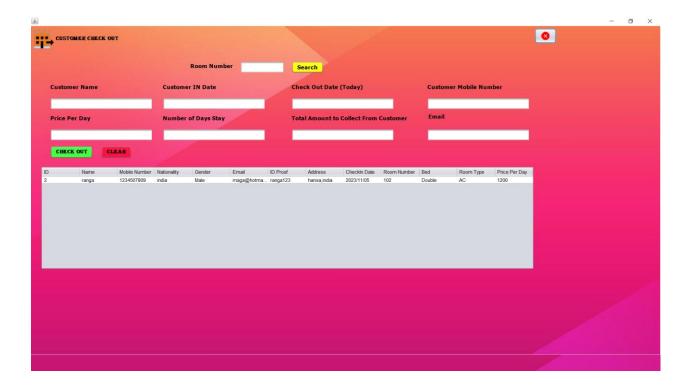# RESULTS AND ANALYSIS

GUI Design for java code:

Page 1: Home Page

Page 2: Rooms page

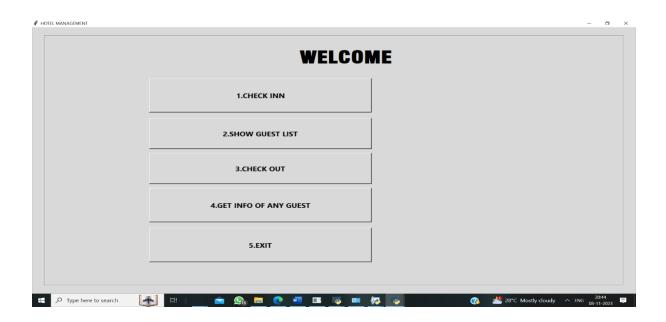**Page 3:** Check In

Page 4: Check Out

Page 5: Detailed Bill

GUI Design for python :
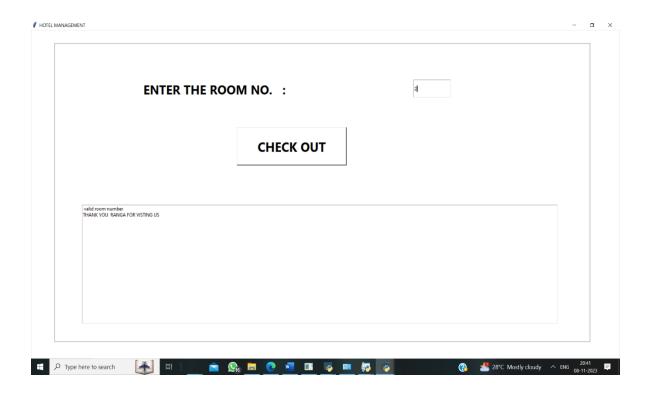
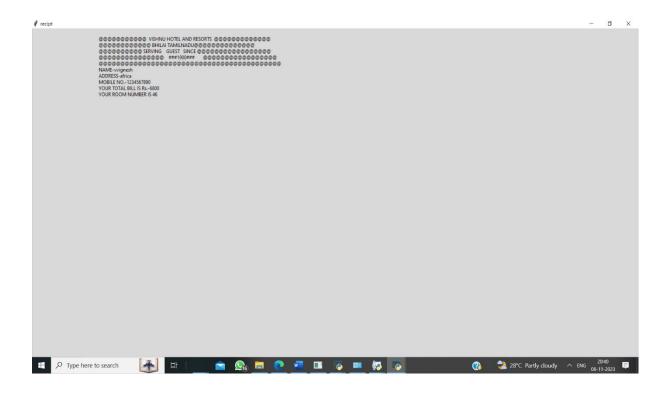**Page 1**:Welcome page

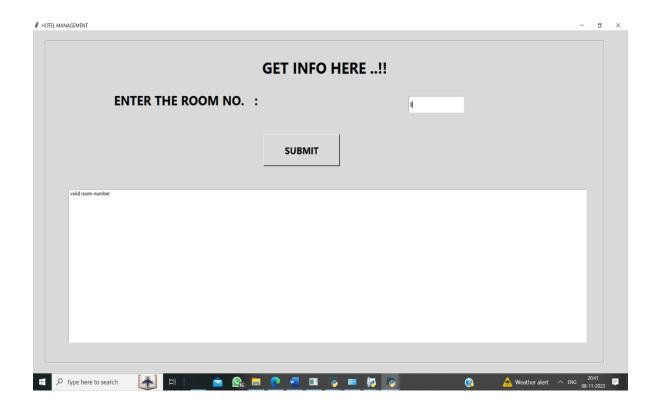**Page 2:** Customer Check In

Page 3:Check Out

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](#)