GUJARAT TECHNOLOGICAL UNIVERSITY

Chandkheda, Ahmedabad
Affiliated

Babaria Institute of Technology

A
Project Report
On

SMART HOTEL RECOMMENDATION SYSTEM

Prepared as a part of the requirements for the subject of
PROJECT - II
B. E. IV, Semester – VIII
(Computer Science and Engineering)

Submitted by:
Group:

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3.	**Jay Togadiya**	**180053107506**

Prof. Name
(Faculty Guide)

Dr. Avani R. Vasant
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(2020-2021)
Academic year

A

Project Report
On

SMART HOTEL RECOMMENDATION SYSTEM

Guided by
Prof. Snehal Patel

Prepared by

Student Name	**Enrollment Number**
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Babaria Institute of Technology

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At: Varnama, Ta: Vadodara, Dist: Vadodara, Pin: 391240

INDEX

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We take this opportunity to express our profound sense of gratitude and respect to all those who helps us throughout the duration of this project. Not only have our efforts leaded us to the successful completion of the project work.

Firstly, we are extremely grateful to **Babaria Institute of Technology** providing us the excellent working environment to undergo our project.

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Last, but not the least, my thanks and appreciation also go to my colleague in developing the project. At last we are extremely thankful to our parents for their moral support.

CERTIFICATE

This is to certify that the project report entitled **Smart Hotel Recommendation System** is prepared and presented by **Shivanshi Parikh , Tanmay Patel and Jay Togadiya** bearing Enrolment Nos. 180053107011, 180053107505 and 180053107506 respectively 4th Year of **B.E (Computer Science & Engineering)** and their work is satisfactory.

.

Prof. Snehal Patel

Dr.Avani R. Vasant

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Business Model Canvas (Image)	**Completed**
Business Model Canvas (Report)	**Completed**
Patent Drafting Exercise (PDE)	**Completed**
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Final Project Report	**Completed**

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Patent Drafting Exercise (PDE)	**Completed**
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Final Project Report	**Completed**

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180053107505	Tanmay Patel	
180053107506	Jay Togadiya	

Place:Varnama   **Date:**

NameofGuide   **Signature of Guide**
Prof. Snehal Patel

CHAPTER:1
INTRODUCTION OF PROJECT

1.1   Problem Summary

- Many websites just take money from hotel owner and promoting that hotel. So user cannot get real reviews about that hotel.

- Many websites does not take review of users experience there is also possibility that they may be delete negative reviews about hotel.

- They also face problem for vehicles while on a trip.

- Many websites has no proper data about hotels and also it does not has proper analysis methods to get most effective reviews.

1.2   Aims and Objectives

- Implement real time based web application by considering agent technology and recommendation filtering mechanism.

- Upgrade and improve the current software.

- Develop a suitable place for proper information.

1.3   Problem Specification

- We use Opinion Mining method for Hotel Review system that takes different attributes in feedback rating from the customer. It takes attributes like Behavior of Hotel Manager and workers, sanitation of hotel, Food quality of hotel, Room conditions of hotel, cost of room, etc.
- After taking feedback, Our system classifies and summarized all different rating of customers opinion. This rating is converted into numeric value and it processed using predefined machine learning model.
- After processing input, It give output that hotel is Good, Bad or Worst.

1.4 Literature Review

Title:	Automated hotel attendant using speech recognition
Authors:	Jean Claude Junqua, MattoeContolini
Institute/Organization	Organization
Year:	1998
Summary	The present invention relates generally to an automated hotel attendant system, and more particularly to an automated hotel attendant system that utilizes a lexicon training system to automatically train a speech recognizer as well as to maintain a hotel guest database.
Limitation:	Phonetic transcriptions are manually created by lexicographers who are skilled in the nuances of phonetic pronunciation of the particular language of interest.
Idea of Improvement:	You can also develop this system for smart phone.

Title:	Smart Safety Security System
Authors:	Anil Kumar CS, Pavan SK
Institute/Organization	Institute
Year:	2020
Summary	In this system, There is a security and really like the gsm module and the speaker and mic have to do the task.
Limitation:	
Idea of Improvement:	Like the system hope the adding feature prove to be safe.

Title:	System and method for booking of hotel accommodations for travelers
Authors:	Robertson David
Institute/Organization	Emirates
Year:	2005
Summary	The method can include connecting to the hotel using a web service to transmit the reservation to the hotel. If the reservation request exceeds the allocation, the hotel has an option of accepting the reservation request or declining the reservation request. The method also includes receiving polling inquiries from the booking source prior to transmitting the hotel's confirmation to the booking source. The confirmation from the hotel can be -received using a web service. The confirmation can be transmitted to the booking source using a web service. The reservation request can include a "special request." The method can also include translating parameters of the reservation request from a format of the booking source to a format of the hotel.
Limitation:	There is a lack of standardization in the hotel industry of the terms used to describe a particular room, and a vastly greater variety of products offered to the consumer.
Idea of Improvement:	In this invention, we can add functionality that every user can submit their feedback about hotel and using this user reviews other user can find the best hotel and booked it.

1.5 Plan of Work

❖ **Time Line:**

June   -   Select project topic
July   -   Analysis of topic
August -   Compare with other Applications
September -   Make Presentation
October -   Develop the Argument frontend
November -   Develop the Argument backend
December -   Develop the Argument database
January -   Connect Frontend and Backend
February -   Fixe the bug
March -   Write the Argument Conclusion

1.6 Material and Tools Required

The front end used in our project is Bootstrap, JavaScript, CSS, and the back end used is Django (Python).
- Tools used are PyCharm, Sublime text.
- We will follow the for developing this Project and whole Project will be developed using the

Python:
- Python is a general-purpose interpreted, interactive, object-oriented, and high-level programming language.
- It supports functional and structured programming methods as well as OOP. It can be used as a scripting language or can be compiled to bytecode for building large applications.

Django:

- Django is a python framework for web applications, as it allows developers to use modules for faster development.
- As a developer, you can make use of these modules to create apps, websites from an existing source. It speeds up the development process greatly, as you do not have to code everything from scratch.
- Using Danger, you can create professional web apps and websites in a short window. The platform is known for its advanced functionality like admin panels, authentication support, and comment boxes, file upload support, contact forms.

CHAPTER:2
ANALYSIS, DESIGN AND IMPLEMENTATION

2.1   Observation Matrix (AEIOU Summary)

❖ The AEIOU framework includes:

1. A-activities.
2. E-environment
3. I-interactions
4. O-objects
5. U-users

AEIOU CANVASS

AEIOU Summary	Group id- 107994		Date - 12-10-2020	Version-1.0
	Domain Name – Smart Hotel Recommendation			
Environment	**Interactions**		**Objects**	
• Cold • Sunny • Autum • Spring	• User to hotel manager • Hotel manager to hotel staff • Hotel manager to user		• Reception desk • Customer luggage	
Activities	**Users**			
• Hotel booking • Hotel Review • Vehicle booking • Booking cancellation • Advance booking	• Customer • Hotel manager • Hotel staff • Receptionist			

2.1.1 Activities

Activities are goal-directed sets of actions—path stowed things people want to accomplish. What are the modes people work in, and the specific activities and processes they go through.

- ❖ Activities include: If someone (User) is involved…
    - How?
    - What actually is going on?
    - Why it is going on?
    - How it is going on?
    - What is involved?

- ❖ According to our domain activities included:

- ❖ Hotel booking
- ❖ Hotel Review
- ❖ Vehicle booking
- ❖ Booking cancellation
- ❖ Advance booking

2.1.2 Environment

Environments include the entire arena where activities take place. What is the character and function of the space overall, of each individual's spaces, and of shared spaces.

- ❖ This canvas includes:
    - Where (Activity) is happening?
    - What are circumstances?
    - Time effects, any?
    - Seasonal effects, any?
    - Person effects, any?
    - Operational effects, any?
- ❖ According to our domain, Environment includes:

❖ Cold
❖ Sunny
❖ Autumn
❖ Spring

2.1.3 Interaction

Interactions are between a person and someone or something else; they are the building blocks of activities. What is the nature of routine and special interactions between people, between people and objects in their environment, and across distances.

❖ Interaction canvas includes:
- Who are involved? Why? How?
- What (users) are holding/ operating/using…
- How the contacts are inaction?
- Action vs. Reaction…

❖ According to our domain, Interactions include:
❖ User to hotel manager
❖ Hotel manager to hotel staff
❖ Hotel manager to user

2.1.4 Objects

Objects are building blocks of the environment, key elements sometimes put to complex or un intended uses (thus changing their function, meaning and context). What are the objects and devices people have in their environments and how do they relate to their activities?

❖ According to our domain, Objects include:
❖ Reception desk
❖ Customer luggage

2.1.5 Users

Users are the people whose behaviours, preferences, and needs are being observed. Who is there? What are their roles and relationships? What are their values and prejudices?

❖ According to our domain, Users include:
❖ Customer
❖ Hotel manager
❖ Hotel staff
❖ Receptionist

2.2   Ideation Canvas

An ideation canvas is a rough whiteboard where ideas can be stretched into any limits or dimensions. Ideation session is not aimed at finding solutions to the defined problem. But to define the best possible problem and stretch out its possible scope. The field is set and the overall agenda is to build the clones of the ideas and pivot them throughout the canvas so as to discover new possibilities.

Project - Smart Hotel Recommendation	Team- 107994

People

- Customer
- Hotel manager
- Receptionist
- Driver

Activities

- Booking a hotel
- Manage hotel staff
- Greeting and assisting guests
- Driving car

Situation/Context/Location

- Customer book hotel
- Hotel manager manages hotel staff to provide best services to customer
- Receptionist help customers, managing available rooms, issuing room keys, and solving any problems.
- Driver drives the car to pick up and drop the guest.

Props/Tools/Object/Equipment

- Phone
- Laptop
- Server
- Logbook
- Car

2.2.2 People

- Customer
- Hotel manager
- Receptionist
- Driver

2.2.3 Activities

- Booking a hotel
- Manage hotel staff
- Greeting and assisting guests
- Driving car

2.2.4 Situation/Context/Location

- Customer book hotel
- Hotel manager manages hotel staff to provide best services to customer
- Receptionist help customers, managing available rooms, issuing room keys, and solving any problems.
- Driver drives the car to pick up and drop the guest.

2.2.5 Props/Possible Solutions

- Phone
- Laptop
- Server
- Logbook
- Car

2.3   Product Development Canvas

- A mind map is an easy way to brainstorm thoughts organically without worrying about order and structure. It allows you to visually structure your ideas to help with analysis and recall.
- A mind map is a diagram for representing tasks, words, concepts, or items linked to and arranged around a central concept or subject using a non-linear graphical layout that allows the user to build an intuitive framework around a central concept. A mind map can turn a long list of monotonous information into a colourful, memorable and highly organized diagram that works in line with your brain's natural way of doing things.
- A mind map can be used as a simplified content management system (CMS). It allows you to store all your data in a centralized location to stay organized. With the various mind mapping software programs out today, you can attach files to different branches for even more flexibility. You can also change to various different views in order to find one that suits you best.
- We also made a mind map collecting all idea together and putting it into a single blank paper.

Product Development Canvass

Project -   Smart Hotel Recommendation   Team id-   170994

Purpose
- Find true feedback
- Easily hotel finding
- Easily hotel booking
- Easily car booking

Product Experience
- More effective searching result
- Easily online hotel booking
- Easily payment

Product Functions
- User and hotel registration
- User give review about hotel
- User find effective hotel
- User can book hotel online
- Online payment
- User can order food in advanced
- User can easily book car

Customer Revalidation
- OTP validation
- Mail validation

People
- Traveller
- Hotel manager

Product Features
- Easily find hotel
- Easily online hotel booking
- Get true reviews
- Trip purpose package with car
- Pick-up and drop facility
- Easily Food ordering
- Provide other features like party plot, meeting room,

Components
- Mobile
- Laptop
- Tablet
- Internet
- Server

Reject, Redesign, Retain
- Improve searching
- Provide security

2.3.1 Purpose

- Find true feedback
- Easily hotel finding
- Easily hotel booking
- Easily car booking

2.3.2 People

- Traveler
- Hotel manager

2.3.3 Product Experience

- More effective searching result
- Easily online hotel booking
- Easily payment

2.3.4 Product Function

- User and hotel registration
- User give review about hotel
- User find effective hotel
- User can book hotel online
- Online payment
- User can order food in advanced
- User can easily book car

2.3.5 Product Features

- Easily find hotel
- Easily online hotel booking
- Get true reviews
- Trip purpose package with car
- Pick-up and drop facility
- Easily Food ordering
- Provide other features like party plot, meeting room,

2.3.6 Components

- Mobile
- Laptop
- Tablet
- Internet
- Server

2.3.7 Customer Revalidation

- OTP validation
- Mail validation

2.3.8 Reject/Redesign/Revalidate

- Improve searching
- Provide security

2.4   Empathy Mapping Canvs

Design for all people	Design By 107994
Date 12-10-2020	Version 1.0

User	Stakeholders
• Customer • Hotel manager	• Receptionist • Hotel staff • Driver

Activities

- Booking a hotel
- Provide services to customer
- Pick up and drop customer

Story Boarding

Happy

- One day, Ramesh planned a trip for Jaipur with family. First he searched all places and make a list. He realize that he also need a car to visit different places. So he booked hotel and also request to hotel manager to searching car for rent. So manager is arranged car for Ramesh. He made so much fun at there and his family was also very happy from this memorable trip.

Happy

- Once Rajesh had to go to Bangalore for business meeting. His three meeting were on different days. So he had to stay there for three days. So he booked hotel for three days. After he reached at hotel, he asked hotel manager about food facility. Hotel manager said that they provide food facility, but if he want to eat food from other special restaurant then we also take special order and also he said that if Rajesh want food for three days then he can order in advance. Rajesh was very happy for this facility and he managed all the meetings well.

Sad

- On Diwali vacation, Suresh and his family want to going at Mahabaleshwar. They kept going without plan. After they reaching, they comes to know that mostly all rooms of every hotels are booked. There are no other rooms available at around. After that Suresh request to hotel manager. So hotel manager told that one small guest house is available but it's about 20 km from here. It was a midnight and Suresh has no other option available. So he went at that guest house. Due to Diwali vacation and improper preparation, Suresh and his family faced many troubles.

Sad

- Once Jayesh and his cousins decided to go to Udaipur. It was a four days trip so Jayesh booked hotel online. When they reached at hotel, He came to know that this hotel does not had much facility as they stated at the time of online booking. They also noticed the room is also not proper sanitised and also hotel does not have proper quality of food and water. After these difficulties they decided to change the hotel. They also did not receive a refund on booking cancellation. Due to improper information about hotel they faced many troubles.

2.4.1 User

28

- Customer
- Hotel manager

2.4.2 Stack holders

- Receptionist
- Hotel staff
- Driver

2.4.3 Activities

- Booking a hotel
- Provide services to customer
- Pick up and drop customer

2.4.4 Story Bonding
❖ Happy:-

- One day, Ramesh planned a trip for Jaipur with family. First he searched all places and make a list. He realize that he also need a car to visit different places. So he booked hotel and also request to hotel manager to searching car for rent. So manager is arranged car for Ramesh. He made so much fun at there and his family was also very happy from this memorable trip.

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❖ **Sad**:-

- On diwali vacation, Suresh and his family want to going at Mahabaleshwar. They kept going without plan. After they reaching, they comes to know that mostly all rooms of every hotels are booked. There are no other rooms available at around. After that Suresh request to hotel manager. So hotel manager told that one small guest house is available but it's about 20 km from here. It was a midnight and Suresh has no other option available. So he went at that guest house. Due to diwali vacation and improper preparation, Suresh and his family faced many troubles.

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2.5   Diagrams

2.5.1 Use Case Diagrams

A **use case** is a description of how a person who actually uses that process or system will accomplish a goal. It's typically associated with software systems, but can be used in reference to any process. For example, imagine you're a cook who has a goal of preparing a grilled cheese sandwich. The use case would describe through a series of written steps how the cook would go about preparing that sandwich. A use case helps you understand where errors could occur in the process and design features to resolve those errors.

Three elements that a use case must contain:

1. **Actor**, which is the user, which can be a single person or a group of people, interacting with a process
2. **System**, which is the process that's required to reach the final outcome
3. **Goal**, which is the successful user outcome

Registration

Login

Hotel

Hotel Information

Search Hotel

User

Book Hotel

Book Car

Make Rewies

Make Payment

Logout
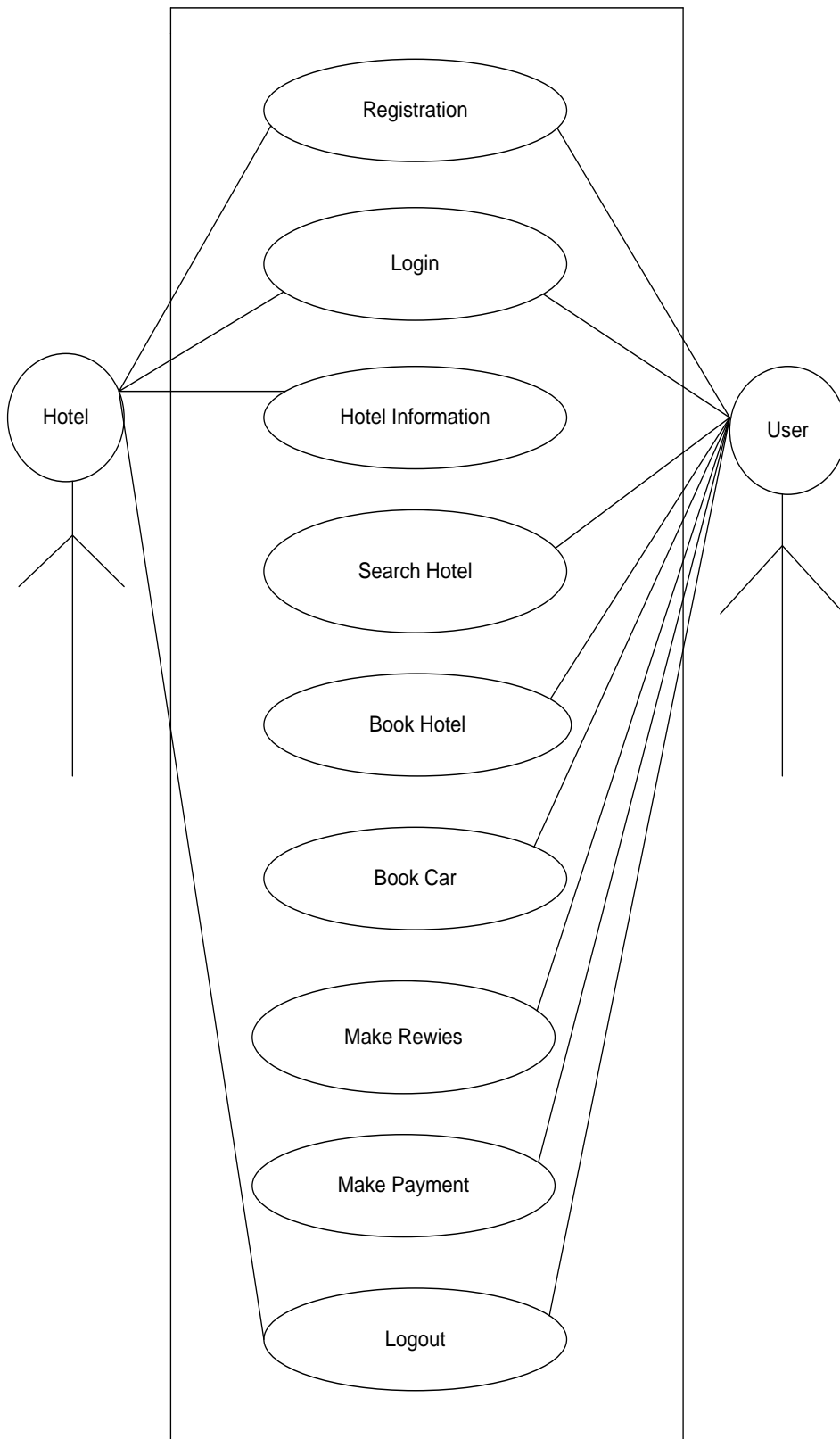
2.5.2 Activity Diagrams

Activity diagram is another important diagram in UML to describe the dynamic aspects of the system.

Activity diagram is basically a flowchart to represent the flow from one activity to another activity. The activity can be described as an operation of the system.

The control flow is drawn from one operation to another. This flow can be sequential, branched, or concurrent. Activity diagrams deal with all type of flow control by using different elements such as fork, join, etc..
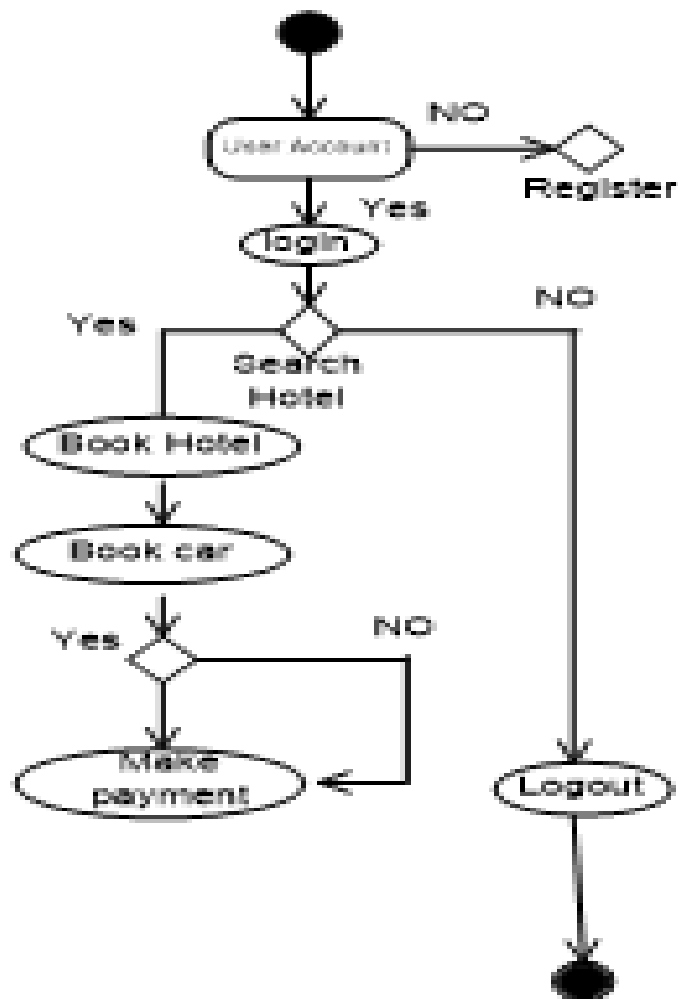
2.5.3 E-R Diagram

An ER diagram shows the relationship among entity sets. An entity set is a group of similar entities and these entities can have attributes. In terms of DBMS, an entity is a table or attribute of a table in database, so by showing relationship among tables and their attributes, ER diagram shows the complete logical structure of a database.
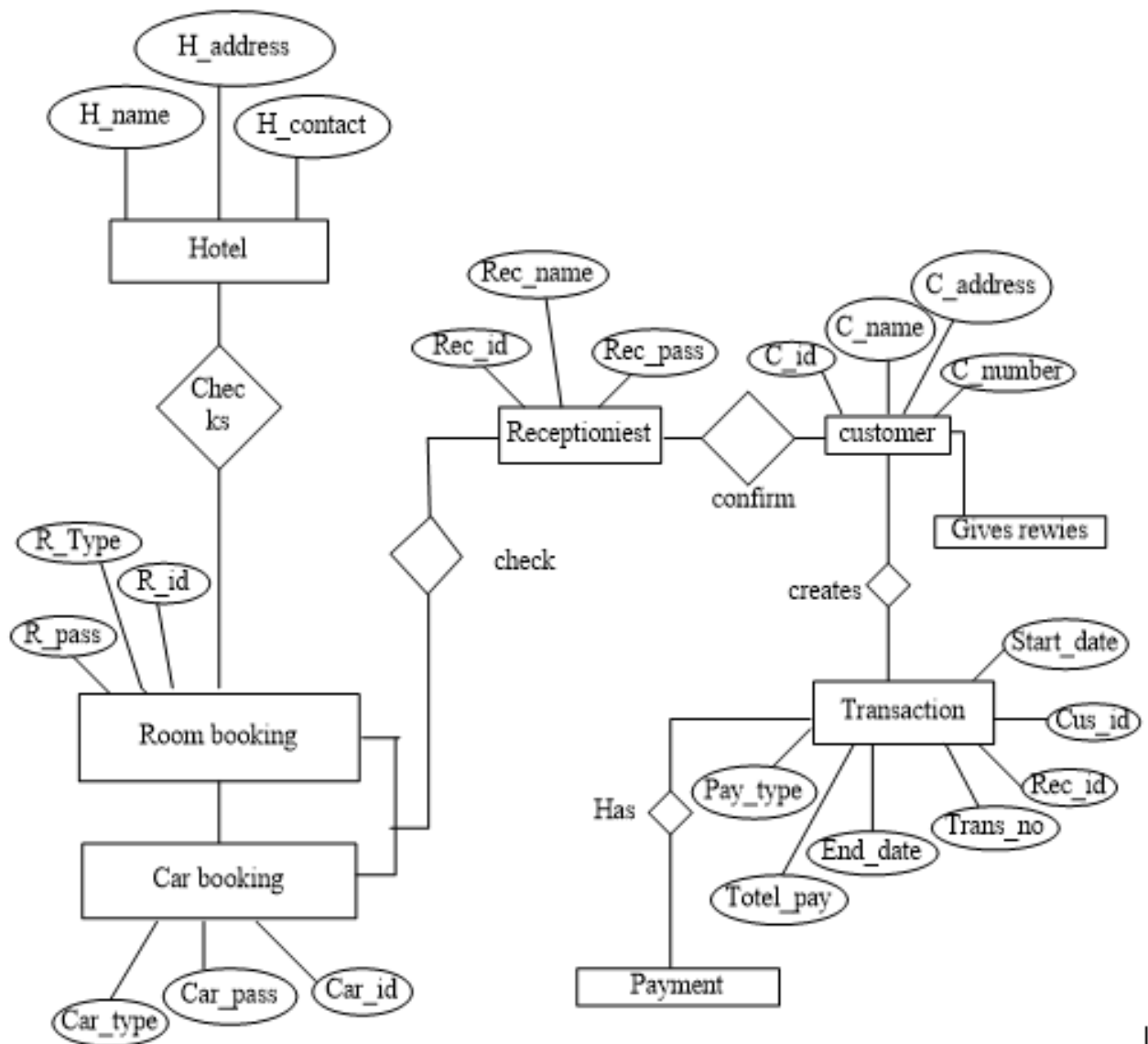
2.5.4 Class Diagram

Class diagram is a static diagram. It represents the static view of an application. Class diagram is not only used for visualizing, describing, and documenting different aspects of a system but also for constructing executable code of the software application.

Permission Class

+permission_id : int
+permission_role_id : int
+permission_title : string
+permission_module : string
+permission_description : string

+addPermission()
+editPermission()
+deletePermission()
+searchPermission()

Booking Class

+booking_id : int
+booking_type : string
+booking_title : string
+booking_description : string
+booking_date : date

+addBooking()
+editBooking()
+deleteBooking()
+searchBooking()

Role Class

+role_id : int
+role_title : string
+role_discription : String

+addRole()
+editRole()
+deleteRole()
+searchRole()
+assignRole()

Customer Class

+customer_id : int
+customer_name : string
+custom_mobile : string
+custom_email : string
+customer_address : string
+customer_username : string
+customer_password : string

+addCustomer()
+editCustomer()
+deleteCustomer()
+searchCustomer()

User Class

+user_id : int
+user_role_id : int
+user_name : string
+user_email : string
+user_dob : date
+user_adress : string

+addUser()
+editUser()
+deleteUser()
+searchUser()

Vehicle Class

+car_id : int
+car_exam_id : string
+car_type : string
+car_number : string
+car_description : string

+addCars()
+editCars()
+deleteCars()
+searchCars()

Room Class

+room_id : int
+room_exam_id : string
+hotel_type : string
+hotel_number : string
+hotel_description : string

+addRooms()
+editRooms()
+deleteRooms()
+searchRooms()

Hotel Class

+hotel_id : int
+hotel_description : string
+hotel_type : string
+hotel_name : string
+hotel_rent : string
+hotel_address : string

+addHotel()
+edithotel()
+deleteHotel()
+searchHotel()

Payments Class

+payment_id : int
+payment_customer_id : int
+payment_description : string
+payment_amount : string
+payment_date : date

+addPayments()
+editPayments()
+deletePayments()
+searchPayments()

2.5.5 Sequence Diagram

A sequence diagram simply depicts interaction between objects in a sequential order i.e. the order in which these interactions take place. We can also use the terms event diagrams or event scenarios to refer to a sequence diagram. Sequence diagrams describe how and in what order the objects in a system function.
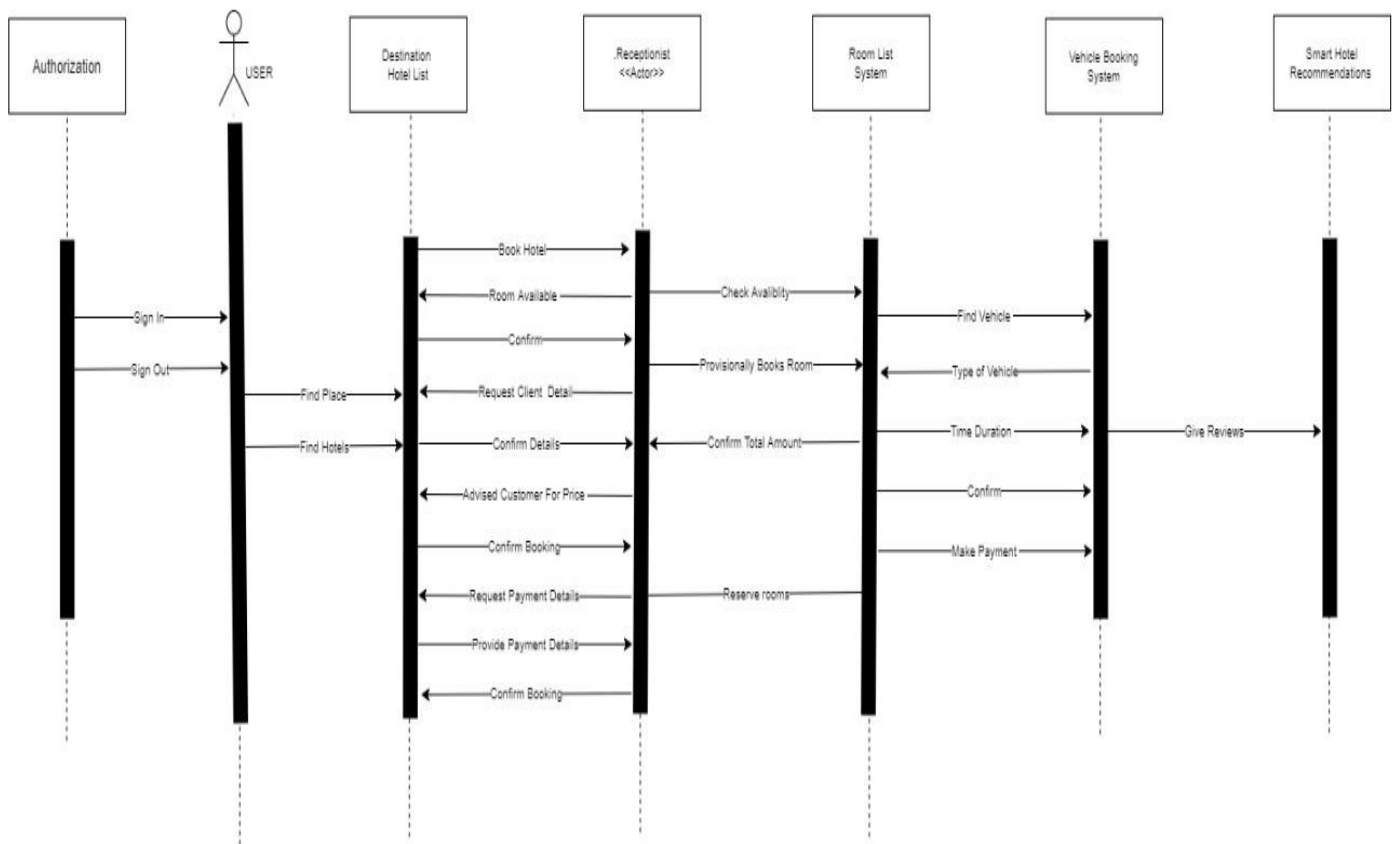
CHAPTER:3
IMPLEMENTATION

3.1   Modules in the System

❖ **Hotel Admin:**

    Register
    Login

❖ **End user:**

    Register
    Login

3.2   Data Dictionary

A Data Dictionary is a collection of names, definitions, and attributes about data elements that are being used or captured in a database, information system, or part of a research project. It describes the meanings and purposes of data elements within the context of a project, and provides guidance on interpretation, accepted meanings and representation. A Data Dictionary also provides metadata about data elements.

Table Name: Hotel_Registration

Field Name	Datatype	Size	Key	Description
Hid	INT	7	P.K.	Store Hotel Id
Hname	VARCHAR	50		Store Hotel Name
Hpassword	VARCHAR	50		Store Hotel Password
Hphoneno	Number	10		Store Hotel phone no
Haddress	VARCHAR	50		Store Hotel Address

Table Name: Hotel_Rooms

Field Name	Datatype	Size	Key	Description
Rid	INT	7	P.K.	Store Room id
Hid	INT	7	F.K.	Store Hotel Id
TotalRooms	INT	7		Store total room
RoomType	VARCHAR	20		Store Room Type
RoomRent	INT	4		Store Room Rent

Table Name: User_Registration

Field Name	Datatype	Size	Key	Description
Uid	INT	7	P.K.	Store User Id
Uname	VARCHAR	50		Store User name
Upassword	VARCHAR	50		Store User password
Umobileno	Number	10		Store User phone no
Uemail	VARCHAR	30		Store User email

Table Name: User_Record

Field Name	Datatype	Size	Key	Description
Uid	INT	7	F.K.	Store User Id
Hid	INT	7	F.K.	Store Hotel Id

Table Name: User_Rating

Field Name	Datatype	Size	Key	Description
Uid	INT	7	F.K.	Store User Id
Hid	INT	7	F.K.	Store Hotel Id
Feature1Rating	INT	2		Store feature rating
Feature2Rating	INT	2		Store feature rating
Total_Rating	FLOAT	4		Store total rating

Flow chart:
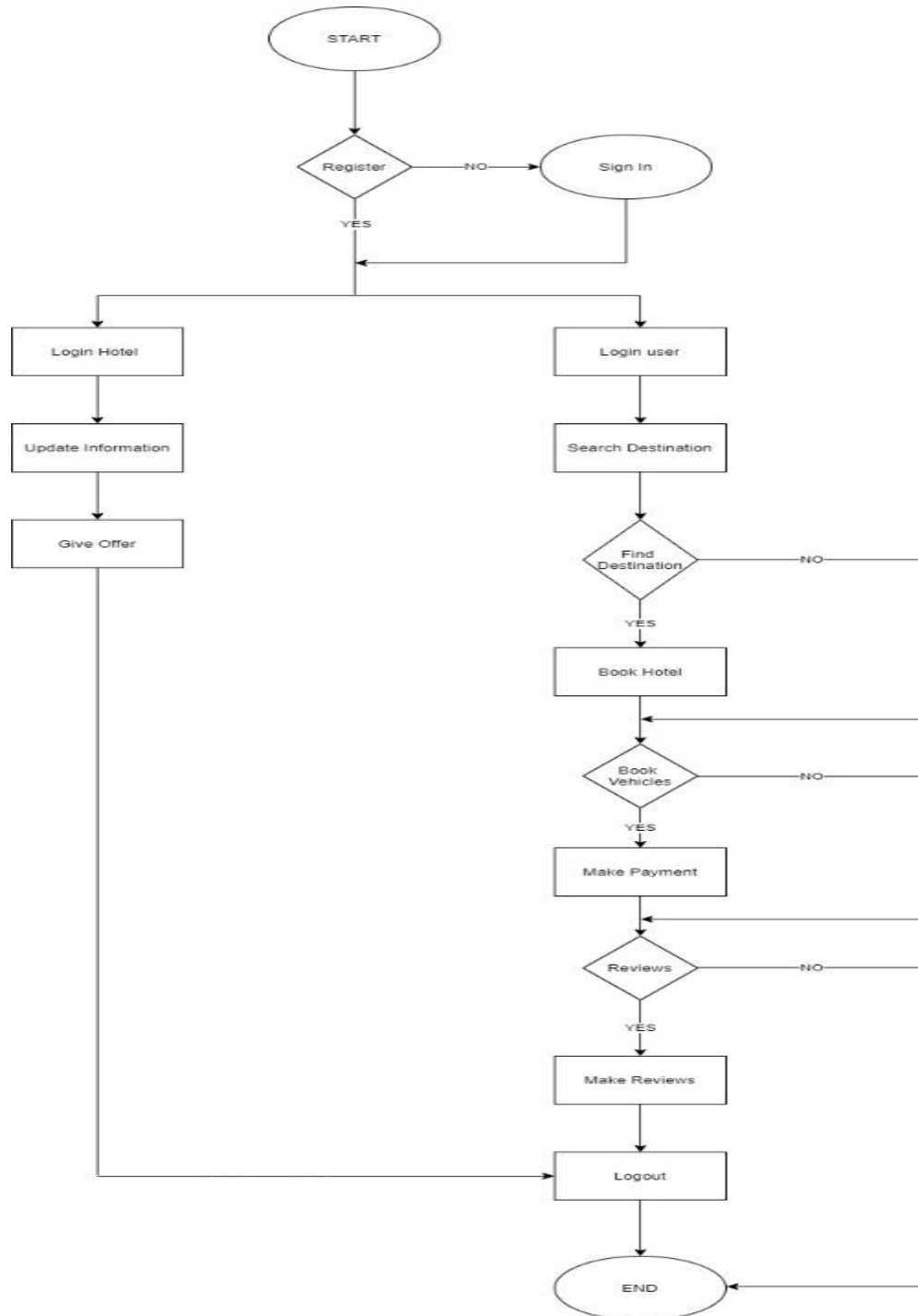
- **Algorithm**

  Step 1: Start
  Step 2: Enter user_id
  Step 3: If user_id = Correct then goto step 4
       Else goto step 2
  Step 4: Search Hotel
  Step 5: Select Room
  Step 6: If room_is_available:
         Book Room
     Else
         goto step 5
  Step 7: Select additional feature
  Step 8: Provide review about hotel.
  Step 9: Stop

❖ Screen Shorts:

Login:
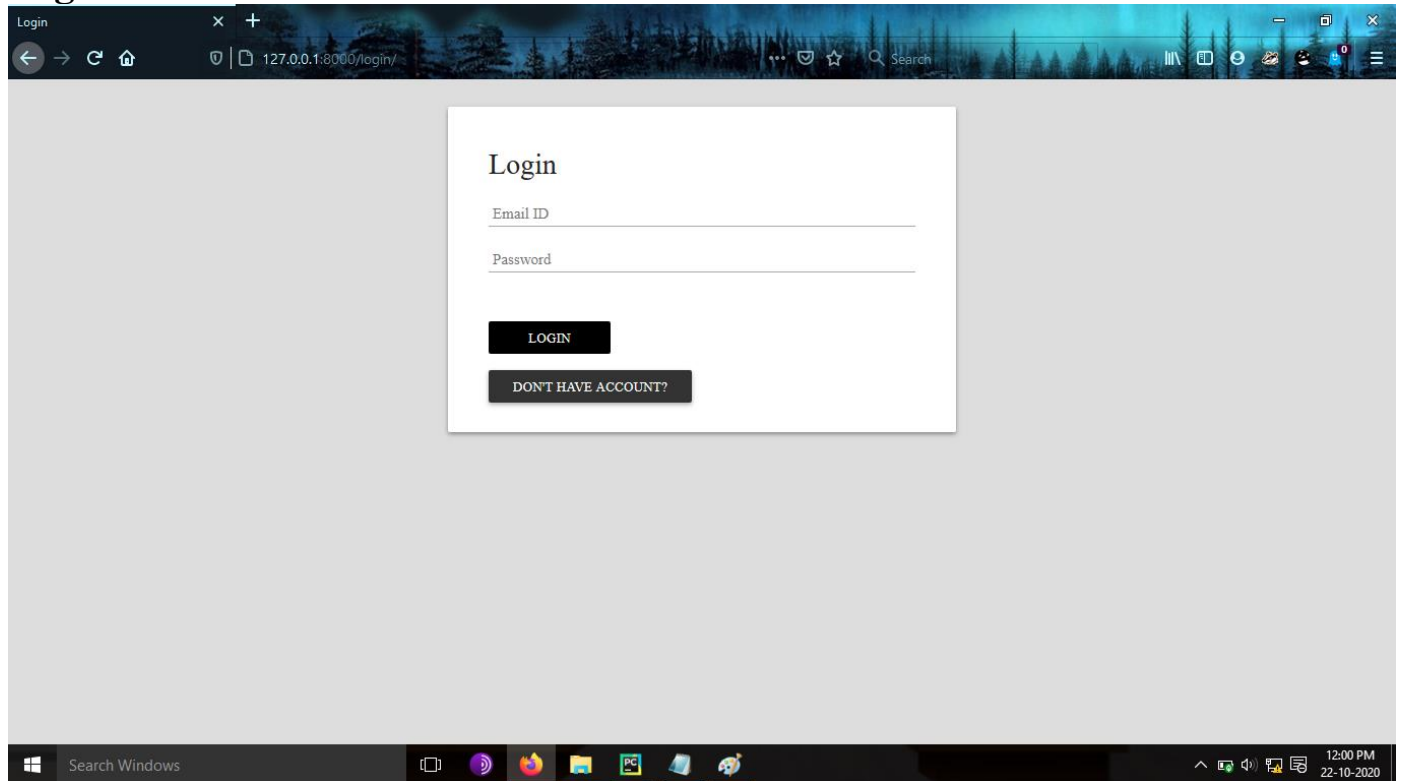
❖ User_Signup:

❖ Hotel_Signup:

45

+
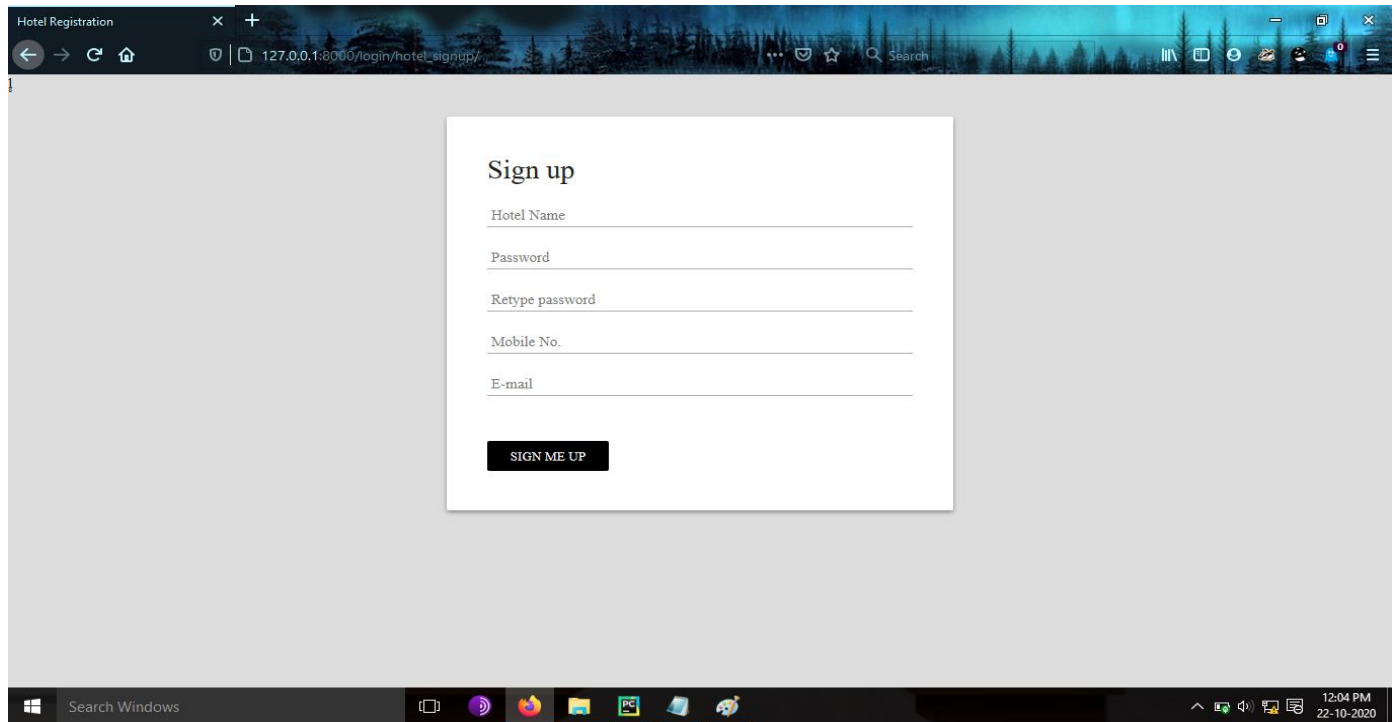
❖ Hotel Room List

Hotel Rooms
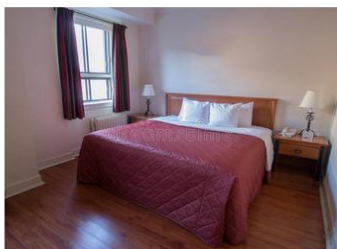
AC Suite
Features: This is AC Room. The room has 2 beds and capacity of room is 2.
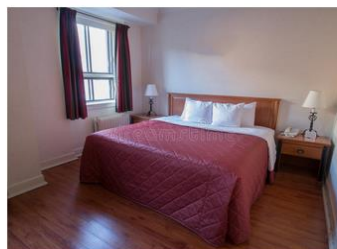
NON-AC Suite
Features: This is NON AC Room. The room has 3 beds and capacity of room is 5.
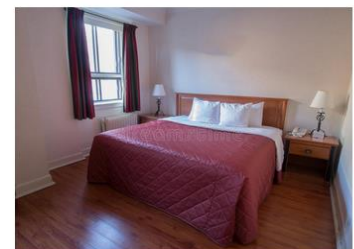
DELUXE Suite
Features: This is DELUX Room. The room has 3 beds and capacity of room is 5.

❖ Room_Detail_View:
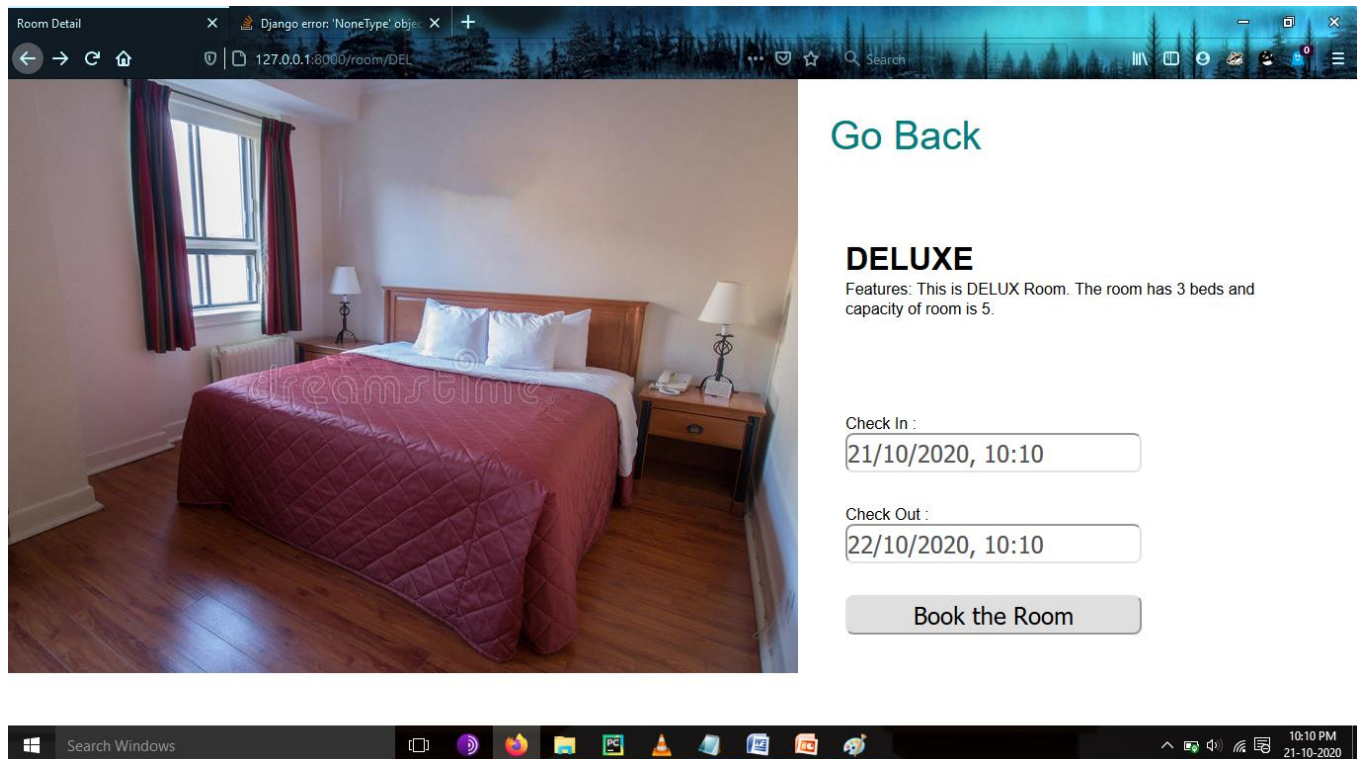
❖ **Booking_List:**

❖ **Cancel_Booking:**

← Home

Lorem ipsum dolor sit amet consectetur adipisicing elit. Id optio rem saepe culpa architecto tempora numquam debitis reiciendis! Quaerat laudantium consequuntur doloribus quod placeat consectetur veniam, rerum repellendus magnam labore.

Are you sure you wanna cancel this Booking? Details-
102NON-AC tanmay has booked 102. NAC with 3 beds for 5 people from 2020-10-21 16:43:58+00:00 to 2020-10-21 16:44:00+00:00

Cancel the Booking

CHAPTER:4
APPENDIX

4.1 PPR

Tanmay Patel PPR

PPR 1:
1. **Progress that student has made:**
   We implemented all basic functionality in project.

2. **Challenges student has faced:**
   Solving different types of error during implementation.

3. **Support we need:**
   We need internet to search about solution of error during implementation.

4. **Literature:**
   We have referred online documentation of django (https://docs.djangoproject.com). We have referred other sites like google, stackoverflow and also watch youtube videos.

PPR 2:

1. **Progress that student has made:**

   We present our project to guide, take reviews about implementation and improve project. We also improve searching functionality of project.

2. **Challenges student has faced:**

   We made little change in frontend and backend so we need to solve new errors while connecting frontend and backend.

3. **Support we need:**

   We need internet to search about solution of error during implementation. We also try to search best solutions of our problems.

4. **Literature:**

   We have referred online documentation of django (https://docs.djangoproject.com). We have referred other sites like google, stackoverflow and also watch youtube videos.

PPR 3:

1. Progress that student has made:

We made more changes in project. We also search dataset for project.

2. Challenges student has faced:

Search dataset as our project requirement is little bit difficult and also solve errors.

3. Support we need:

We needed internet to read more online information and for searching dataset.

4. Literature:

We have referred online documentation of django (https://docs.djangoproject.com). We have referred other sites like google, stackoverflow and also watch youtube videos. We also referred datasets sites like UCI Machine Learning Repository, Socrata, Kaggle, Academic Torrents etc.

PPR 4:

1. **Progress that student has made:**

   We added recommendation system in project, and going to implement additional functionality in project.

2. **Challenges student has faced:**

   Solving different types of error during implementation and made little change in frontend and backend.

3. **Support we need:**

   We need internet to search about solution of error during implementation. We also try to search best solutions of our problems.

4. **Literature:**

   We have referred online documentation of django (https://docs.djangoproject.com). We have referred other sites like google, stackoverflow and also watch youtube videos.

Shivanshi Parikh PPR

Periodic Progess Report : First PPR

Project : Smart Hotel Recommendation System

Status : Reviewed

1. **What Progress you have made in the Project ?**

we completed 30% of implementation

2. **What challenge you have faced ?**

To learn in codeing.

3. **What support you need ?**

we need support in coding

4. **Which literature you have referred ?**

google etc...

Periodic Progess Report : Second PPR

1. What Progress you have made in the Project ?

completed 40 % of implementation

2. What challenge you have faced ?

In coding

3. What support you need ?

need support in coding

4. Which literature you have referred ?

we referred related app.

Periodic Progess Report : Third PPR

1. What Progress you have made in the Project ?

We completed 60% of implementation

2. What challenge you have faced ?

as we are doing the implementation part we face challange in coding area

3. What support you need ?

we need support in error

4. Which literature you have referred ?

differtent websites

Periodic Progess Report : Forth PPR

1. What Progress you have made in the Project ?

we did 80% of implemtation part

2. What challenge you have faced ?

we faced challenge in implementation

3. What support you need ?

in coding area

4. Which literature you have referred ?

we referred different platforms like google websites app etc...

Jay Togadiya PPR

Periodic Progess Report : First PPR

1. What Progress you have made in the Project ?
we completed 30% of implementation.

2. What challenge you have faced ?
To learn in coding.

3. **What support you need** ?
we need support in coding.

4. Which literature you have referred
google etc..

Periodic Progess Report : Second PPR

1. What Progress you have made in the Project ?
Completed 40% of implemenation.

2. What challenge you have faced ?
 In coding

3. What support you need ?
 Need support in coding

4. Which literature you have referred ?
we referred related app.

Periodic Progess Report : Third PPR

1. What Progress you have made in the Project ?
We completed 60% of implementation.

2. What challenge you have faced ?
as we are doing the implementation part we face challange in coding area

3. What support you need ?

need support in error

4. Which literature you have referred ?
Differtent websites

Periodic Progess Report : Forth PPR

1. What Progress you have made in the Project ?

 we did 80% of implemtation part

2. What challenge you have faced ?

 we faced challenge in implementation

3. What support you need ?

in coding area

4. Which literature you have referred ?

we referred different platforms like google website app etc..

4.2 BMCCANVAS AND REPORT

BMC CANVAS

Business Model Canvas			Designed for:	Designed by:		Date:	Version
Key Partners Hotels owner Small Investors Travel agency	**Key Activities** Tie-up with the hotels Tie-up with travel agency Collecting user reviews Online payment **Key Resources** Internet Computer/Mobile Servers Capital		**Value Propositions** Best and True Reviews Online service Cheapest prices At any time free cancellation	**Customer Relationships** Customer care service Offers/Discounts Best service **Channels** Advertisement Networking Sites References		**Customer Segments** Tourists Travel agency	
Cost Structure Electrical devices Server maintenance Security				**Revenue Streams** Successful booking Offering hotel rooms on a commission basis			

BMC REPORT

TABLE OF FIGURE

1. Introduction

The Business Model Canvas is a visual framework for describing the different elements of how a business works. It illustrates what the business does, for and with whom, the resources it needs to do that and how money flows in and out of the business. It can be used to design new models or to analyze current models.

1. Unfilled Business Model Canvas

The canvas is made up of nine different elements. This introduction will explain what each of them might describe in an arts and cultural context.

One advantage to the Business Model Canvas is that it is not a linear description. This allows for the effects of alterations in one area to be clear, making it easier to play around with changes to current or potential models

Business Model Canvas			Designed for:	Designed by:	Date:	Version
Key Partners	**Key Activities**	**Value Propositions**		**Customer Relationships**	**Customer Segments**	
	Tie-up with the hotels	Best and True Reviews		Customer care service	Tourists	
Hotels owner	Tie-up with travel agency	Online service		Offers/Discounts	Travel agency	
Small Investors	Collecting user reviews	Cheapest prices		Best service		
Travel agency	Online payment	At any time free cancellation				
	Key Resources			**Channels** Advertisement		
	Internet			Networking Sites		
	Computer/Mobile			References		
	Servers					
	Capital					
Cost Structure			**Revenue Streams**			
Electrical devices			Successful booking			
Server maintenance			Offering hotel rooms on a commission basis			
Security						

2. Proposed Business Model Canvas

2. CONTENTS

2.1 Key Partners

- o Hotels owner: Hotels owner are key partner because our users can booked hotel room.
- o Small Investors: We need capitals to improve our company.
- o Travel agency: Travel agencies are also our key partner because many travellers contact travel agency for travelling and this agency booked hotel through our site for that users.

2.2 Key Activities

- o Tie-up with the hotels: We need to tie-up with hotels so that our users can easily booked room from our site.
- o Tie-up with travel agency: We need to tie-up with travel agency so that they booked hotel through our site for that users.
- o Collecting user reviews: We collects user reviews about hotel so that we can recommend best hotel to user.
- o Online payment: User can also do online payment.

2.3 Value Proposition
- o Best and True Reviews: We provide best and true recommendation to users about hotel.

- Online service: Using our web application, user can book hotel and pay online.
- Cheapest prices: We provide cheapest price to book the room.
- Any time free cancelation: User can cancel room at anytime and free of cost.

2.4 Key Resources

- Internet: Internet is the most primary thing to implement whole project.
- Computer/Mobile: We use computers to implement our web application and also need computer/mobile to test our web application.
- Servers: We need server to host our web application online.
- Capital: We need capital to implement this project.
- Utilities

2.5 Customer Relationships

- Customer care service: We provide customer support and FAQ.
- Offers/Discounts: We provide best offers and discount for hotel booking.
- Best service: We provide best services to our users.

2.6 Customer Segment

- Tourists: Tourists is the main customer for us.
- Travel agency: Travel agency is also important for us as customer.

2.7   Channels

- Electrical devices: Key resources like electrical devices are most expensive.
- Server maintenance: Server maintenance is also expensive for our project.
- Security: We also need money to secure our users data.

2.8   Cost Structure

- Successful booking: We make money on every successful booking.
- Offering hotel rooms on a commission basis: We get commission from hotel for every room booking.

2.9   Revenues Streams

- Advertisement: We will advertisement to aware customers about our product.
- Social Networking Sites: We also create our website page on social media platform.
- References: If users satisfy with our services then they refer our services to other users.

3. CONCLUSION

The Business Model Canvas is very useful to understand what are the resources we need to start our project in real world, where we have to invest the money and   from where we get profit.

4.3 PDE

FORM1

Applicants :

Sr. No	Name	Nationality	Address	Mobile No.	Email Id
1	Parikh Shivanshi Nipul	Indian	Computer Engineering , BABARIA INSTITUTE OF TECHNOLOGY, VARNAMA , Gujarat Technologycal University.	7990671951	parikh.shivanshi@gmail.com
2	Togadiya Jay Vallabhbhai	Indian	Computer Engineering , BABARIA INSTITUTE OF TECHNOLOGY, VARNAMA , Gujarat Technologycal University.	7203804278	jaytogadiya58@gmail.com
3	Patel Tanmay Hemantbhai	Indian	Computer Engineering , BABARIA INSTITUTE OF TECHNOLOGY, VARNAMA , Gujarat Technologycal University.	7622022198	patelth1998@gmail.com

Inventors :

Sr. No	Name	Nationality	Address	Mobile No.	Email Id
1	Parikh Shivanshi Nipul	Indian	Computer Engineering , BABARIA INSTITUTE OF TECHNOLOGY, VARNAMA , Gujarat Technologycal University.	7990671951	parikh.shivanshi@gmail.com
2	Togadiya Jay Vallabhbhai	Indian	Computer Engineering , BABARIA INSTITUTE OF TECHNOLOGY, VARNAMA , Gujarat Technologycal University.	7203804278	jaytogadiya58@gmail.com
3	Patel Tanmay Hemantbhai	Indian	Computer Engineering , BABARIA INSTITUTE OF TECHNOLOGY, VARNAMA , Gujarat Technologycal University.	7622022198	patelth1998@gmail.com

FORM2
Form 2 - PROVISIONAL/COMPLETE SPECIFICATION

1 . Title of the project/invention :

Smart Hotel Recommendation System

2. Preamble to the description :

Provisional

3. Description

a) Field of Project / Invention / Application :

Our project field will be Booking of the hotel . And the ratings of the hotel .

b) Prior Art / Background of the Project / Invention :

The background of the project is the coding and its from computer field we are making the web application.

c) Summary of the Project / Invention :

We are making web application for the hotel booking and the true reviews of the hotel so its get easy

 for the customers.

d) Objects of Project / Invention :

1)booking hotel
2)reviews for the hotel

e) Drawings :

f) Description of Project / Invention : (full detail of project) :

The classified and summarized hotel review information helps web users to understand review contents

easily in a short time. The system takes review of various users, based on the opinion, system

will specify whether the posted hotel is good, bad, or worst. Based on users search on hotels,

recommendations will be shown to the user based on how many times a user visited tha

t particular hotel page. Once the user login to the system he views the hotels

and gives review about the hotel.
Implement real time based web application by considering agent technology and recommendation

ltering mechanism.
Upgrade and improve the current software.
Develop a suitable place for proper information.

g) Examples :

h) Claims (Not required for Provisional Application) / Unique Features of Project

1)   true rewies of the hotels from the customers.
2)   Implement real time based web application by considering agent technology and recommendation ? ltering mechanism.
3)   Upgrade and improve the current software.Develop a suitable place for proper information.

4. Claims

5. Date and signature

6. Abstract of the project / invention :

The classified and summarized hotel review information helps web users to understand review contents easily in a short time. The system takes review of various users, based on the opinion, system will specify whether the posted hotel is good, bad, or worst. Based on users search on hotels, recommendations will be shown to the user based on how many times a user visited that particular hotel page. Once the user login to the system he views the hotels and gives review about the hotel.

FORM3

Name of the applicant(s) :   I/We, Parikh Shivanshi Nipul ,Togadiya Jay Vallabhbhai ,Patel Tanmay Hemantbhai

Name,Address and Nationality of the joint applicant :

Hereby declare :

(i) that I/We have not made any application for the same/substantially the same victim invention outside India.

(ii) that the rights in the application(s) has/have been assigned to

Name of the Country	Date of Application	Application Number	Status of the Application	Date of Publication	Date of Grant
N/A	N/A	N/A	N/A	N/A	N/A

(iii)That I/We undertake that upto the date of grant of the patent by the Controller, I/We would keep him informed in writing the details regarding corresponding applications for patents filed outside India within three months from the date of filing of such application.

Dated this 9 day of April 2021

To be signed by the applicant or his authorised registered patent agent :

Signature.................

Name of the Natural Person who has signed :   Parikh Shivanshi Nipul ,Togadiya Jay Vallabhbhai ,Patel Tanmay Hemantbhai

To,

The Controller of Patents,

The Patent Office,

At Mumbai

4.3 NOVELTY REPORT

CHAPTER:5
SUMMARY

4.1 Advantages of the System

- Easy to uses
- Easy booking
- Payment
- Half payment
- Full payment
- Vehicles booking

4.2 Unique Features

In our system unique features we added a booking for vehiclerequirement and payment want to do half paymentor full payment .

4.3 Conclusion and Scope of further Work

So this system will give you true reviews and able to booking hotels and if want vehicle to travel will also been done and this easy to payment and easy to use

CHAPTER:6
REFERENCES

❖ **References**

- We have taken reference from some online Hotel Booking websites and applications
- We mentioned some of them below:-
  - o OYO
  - o GOIBIBO
  - o MAKEMYTRIP
  - o TRIVAGO