

Chapter 1

Introduction

The significant growth in Indian travel industry has led to the rising business. When you consider the country's rich cultural and historical legacy, as well as the diversity of ecology, terrains, and natural beauty spots, the Indian Homestay has a lot of promise. The project report for Homestay will explain the things in details. The Indian Homestay has arisen as one of India's most important development drivers in the services sector.

A setting up camp ground, procession park, occasion lodges, food offices, fire camp, Trecking, Traditional Event, jungle gym, reward room, shop, water sport offices, or a club utilized related to any such exercises are instances of the present Scenario Homestay.

The E-Homestay System is an online programming program. The significant objective is to make it as basic as workable for clients to book a Homestay. The objective of this venture is to make a framework that robotizes a Homestay office's cycles and exercises. In this venture, We will make a simpler undertaking of scanning offices and administrations for booking Homestay. In the current system, a customer must manually contact the company to obtain the necessary information in order to book a homestay.

E-Homestay developed For Customer who are willing to Stay and View the places for maximum hours of times and to enjoy and feel the nature's environment, and to avail the offers and discount for more numbers of visit. They are Provided for Meals, Trecking within specific time and Price and they can buy homemade products and Travelling Facilities to the places.

Customers can enquire the Homestay facilities and services. They can book and Schedule the appointment and can proceed for the booking through UPI and Debit Cards. They can also view the forthcoming event date and details in order to make a reservation and take advantage of special deals and discounts. They can also view the photo gallery, details, contact information, and services for their events.

E-Homestay Project provides the features to the Admin such as:

This module gives director related usefulness like from this module use can add Rooms data, Events data and Package Information. Admin can examine daily, weekly, and monthly reports from this module. This module is designed for the website's administrator, who can use it to add, delete, edit, and consider information on places, travels, routes, and bookings.

Admin can Accept user request

- Admin can Verify the User details and Provides authentication credentials.
- Admin Provide access to the User.
- Admin can update the details regarding the homestay events and management

E-Homestay Project provides the features to the Customers such as:

- Customers can View the details of the Homestay.
- Customers can create an account to Book.
- Customers can review and give their feedback about the Homestay
- Customers can buy the Home Products.

Subtleties of various sorts of Packages which incorporates bundles like family bundles, Students bundle, date and season of Check IN and Check OUT and the reasonable of the homestay are kept up with. At the point when a client demands data about a particular bundle, the bundle framework gives data about the connected area where the client wishes to visit, the date and season of the occasion, the amount of seats accessible for that bundle, the cost of the bundle, and any limits accessible on that bundle.

However, issues develop as a result of how the homestay is run. All homestays are currently unregistered with the Division of Homestays, the Department of Tourism, or other local bodies. Furthermore, There are no regulations that govern the activity of Homestays. As a result, the current needs of society are identified, which aids policymakers and officials in developing new Homestay promotion methods in order to take more tourists to the state while also encouraging homestay providers.

HTML is the most major segment of the web. It builds up the design and which means of web content. Different advancements, other than HTML, are normally used to depict the appearance/show (CSS) or usefulness/conduct of a web page. "Hypertext" alludes to linkages that interface sites. The Internet is made up of a lot of associations. By transferring material

to the internet and linking it to other people's pages, you become a functioning member in the W.W.W.

PHP is a database-interactive programming language for creating dynamic content. PHP is a computer language that is mostly used to develop web-based software. This session will help you lay the groundwork for your PHP foundation.

1.1 Objectives

“E-Homestay” a Web application for searching and booking homestay. The primary goals of the Homestay booking is to manage the details of homestay payments, services, customers. It manages all the information about homestay, booking, customer. The project is entirely constructed at the administrative level, so only the administrator has access. The goal of the project is to create an application software that will decrease the quantity of manual labour effort involved in managing homestays, reviews, and feedback. It keeps track of all of the information about the homestays, services, and customers.

1.2 Scope of the Project

Several research on homestay have been published, all of which underline the importance of homestay in general. However, no individual or institution has conducted a rigorous study to determine the function of homestay as a kind of lodging in community-based Homestay development in Karnataka.

This project focuses on a study that is limited to homestays in the state of Karnataka. The study concentrates on identifying homestays responsible for controlling, coordinating and facilitating the growth and development of homestays in Karnataka, The methods utilised by these homestays in attracting tourists to the state – both domestically and globally – as well as assessing the effectiveness of these sorts of lodgings in terms of helping the host community in particular and society in general.

1.3 Ultimez Technology - Web Design Company profile

Ultimez Technology, located in Hubballi, India, is a major IT service provider. Website design and development, software solutions, application development, digital marketing, video production, and internship and project training are all available through Ultimez Technology.

Ultimez Technology is the place to go if you want complete peace of mind and to provide maximum value to our potential clientele. We are currently the top agency for developing client projects in order to ensure that they continue to grow and thrive in this sustainable business trend. We think that our success is based on the success of our clients.

Ultimez Technology is available to help with any type of web development project. Our highly skilled staff creates utilizing current technology and market trends to boost our customers' businesses, whether it's web design, complicated website development, bespoke programming, or dynamic website development.

1.3.1 Vision and Mission of Ultimez Technology

Ultimez Technology is available to assist with any web development project. Our highly skilled staff creates utilizing current technology and market trends to boost our customers' businesses, whether it's web design, complicated website development, bespoke programming, or dynamic website design.

Ultimez Technology is committed to providing high-quality services: We provide web solutions that are focused on high performance to meet corporate demands. We never compromise on quality, especially when it comes to our clients' projects. In each every web development element, you can discover a great blend of quality communication and quality technique approach.

1.3.2 Ultimez Technology Company Products/Services

Ultimez Technology develops a technique that improves as a consequence, communicates in advance, and ensures in the form of assurances for customer satisfaction service, as it pertains to cost, quality, and strategic objectives, without making any concessions on anything else. Web Design and Development, Mobile App Development.

- Mentorship for students

- Career Guidance.
- Learning Management System development
- UI/UX design

1.4 Organization of Report

- Chapter 1, Contains the Introduction, Problem statement, scope, Objectives of the System or Project, and Company Profile.
- Chapter 2, the literature survey discusses abstract survey of the published papers and if any disadvantages identified in paper.
- Chapter 3 discusses the detailed requirement of problem identified for the major project.
- Chapter 4 discusses the System Architecture and Context Design of the Project or System.
- Chapter 5 discusses the design associated with the project.
- The Core Implementation of Logic Code with Explanation and The Screen Shots related to Usability of it in the Execution is discussed in the chapter 6.
- Chapter 7 Includes the Testing Carried Out for the Input Output and to the Core Functionalities of the System.
- The Report concludes with Future Enhancements and Bibliography is handled in Chapter 8.

Chapter 2

Literature Survey

The E-Homestay System is an online application. The principle object is to make booking a Homestay as basic for clients. The objective of this venture is to foster a framework that computerizes the tasks and exercises of a Homestay administration. As a result, I'm making the E-Homestay System as simple as possible by employing a structured and modular approach as well as a menu-oriented interface.

I tried to create the project in such a way that the user would have no trouble using it and that further development would be doable without much effort. We will make it easy to find facilities and services for arranging a homestay in this project. In the current framework, a client needs to Manually Contact to gather the data to book the Homestay. The major goal of my exercise is to use an E-homestay web application to complete each Customer activity in a computerised manner rather than manually.

Satyen Amonkar [1] In the world Tourism industry is one of the most rapidly growing industry, and also supports economical growth for the country. The tourism recommendation system is based on the web mashup idea and collects data from the various websites listed in this article.

Shan-Shan Mei [2] In the current world the innovation development exceptionally quick and high, along the inn business is additionally growing quickly. This paper depicts inn internet booking and visitor data likewise a framework advancement guarantees for office staff offering better and quicker support.

Bogdan Walek [3] Nowadays there are so many hotel booking systems. Providing an effective system is very hard. Utilizing a lodging site clients can separate inns and their degree of inn administrations, cost, and so forth Most lodging booking sites have audits and evaluations of inns dependent on visitor's experience.

Keng-Pei Lin [4] User reviews play an important role in websites. And also active customer reviews are informative because they pass on consumers' actual experiences to the products and services they received. Reviews are helpful to the potential growth of a business.

Hongyun Kuang [5] HECS (Hotel online booking Consumer Satisfaction) concentrated in this paper explicitly recommend to the entire work from online client data looking prior to

booking to the web based booking measure for lodging. The reviews of the customer will help to build a website.

Z. W. Miao [6] ORS (The online reservation system) largely used in hospitality website. This paper tell the hotel pricing system without prepayment and booking with prepayment. The two types of methods help different flexibilities for the users booking and cancellation.

2.1 Existing System and Proposed System

After referring to different papers, the existing system was studied by different clients. The following section summarizes how the system is executed to achieve the task.

2.1.1 The Existing System

In the existing system, only a customer has to Manually Contact to collect the information to book the Homestay. the homestay can reserve the rooms. The previous system was the failure to booking homestay in a faster way. There is no effectiveness in Manual inquiry and information exchange of homestay. And, it is a failure to provide a defense to admin and user information.

2.2.1 Proposed System

The E-Homestay offers quality support to the end-client. This task plans to foster a Homestay Management System that can be used by the two heads and visitors. The overseer will refresh our online interface with room accessibility and Homestay data. Clients ought to have the option to check the accessibility of rooms on a particular date prior to reserving a spot at Homestay. They ought to be ready to book the accessible rooms ahead of time dependent on their necessities. To make their visit as lovely as could be expected. The Admin hands the booking data of clients. The clients can visit and enroll with the framework. The director will know the important part of the booking and every day pay

2.2 Feasibility Study

An Feasibility study might be a significant level case variant of the entire System investigation and style Process. The examination starts with a characterization of the issue definition. The motivation behind possibility is to check whether something merits attempting. The analyst creates a logical model of the system after creating an acceptance problem specification. The hunt for alternatives is thoroughly examined. The feasibility study is divided into three sections.

- Feasibility of Operation
- Feasibility from a technical standpoint
- Feasibility from a financial standpoint

2.2.1 Feasibility in terms of technology

This consolidates choosing if the structure's development is available, how irksome it will be to make, and whether or not the firm has sufficient contribution in that advancement. The evaluation relies upon the format plan of the system requirements to the extent data, measures, yield, fields, ventures, and methods. To introduce an outline of the specialized framework, it very well may be characterized as far as information volume, patterns, and refreshing recurrence. It was built on a Windows XP platform with a high configuration of 1GB RAM and an Intel Pentium Dual-Center CPU, which tells a lot about the app. The specialized achievability assessment centers around getting a comprehension of the association's innovative assets and their importance to the proposed framework's anticipated necessities. Since E-Homestay is developed on a customer worker engineering utilizing HTML as the front end and SQL Server as the back end, the task is actually possible.

2.2.2 Operational Feasibility

The percentage of how well a proposed framework addresses a problem. difficulties and exploits prospects found during degree definition, just as how well it fulfills the needs showed during the necessities examination period of framework advancement, is functional possibility. The functional plausibility assessment considers how well the suggested advancement tasks, as well as the improvement strategy, delivery date, company culture, and existing business technique, would fit into the current business climate. To guarantee a favourable end, desired functional objectives should be communicated during the planning and implementation stages. Unwavering quality, viability, legitimacy, convenience,

producibility, incapacity, supportability, reasonableness, and other plan subordinate elements are among them. In the event that beneficial functional practices are to be refined, these attributes should be viewed as from the get-go in the plan cycle. To accomplish the recently indicated boundaries, framework plan and advancement require appropriate and convenient application endeavors. At the point when a framework's specialized and working characteristics are designed into the arranging, it can best fill its expected need. Therefore, functional plausibility might be a huge component of frameworks designing that should be considered all through the beginning phases of improvement.

2.2.3 Economical Feasibility

Building up the proposed framework's expense adequacy, i.e., if the advantages don't offset the expenses, it isn't beneficial to continue. Online interpersonal interaction administrations are sought after in the present high speed climate. Thus, in the current setting, the advantages of this undertaking make it monetarily suitable. They needed to keep a few registers/books in the past framework, which was an exorbitant undertaking. This can be diminished by putting away information in a more reliable and practical computerized design. The product is financially plausible since the framework's improvement cost fulfills the association's requirements.

2.3 Tools and Technologies

Various dialects, systems, and instruments assume a fundamental part in the improvement of each task. This section describes the development frameworks and tools to help in the process.

2.3.1 Technologies

The system may use some of the technologies like HTML, CSS, JavaScript, etc.

2.3.1.1 HTML

The standard jargon for pages intended to be seen in a program is hypertext phrasing (HTML). Falling Style Sheets (CSS) and programming dialects like JavaScript are every now and again used to assist with this. Internet browsers get HTML pages from the web or neighbourhood stockpiling and convert them to interactive media locales. HTML initially

highlighted signals for the report's appearance and depicted the design of a web page semantically.

HTML components are the segments that make up HTML pages. Pictures and different articles, like intelligent structures, may likewise be installed in the delivered page utilizing HTML strategies. HTML permits you to make coordinated records by showing underlying semantics for text components like headings, passages, records, connections, citations, and different components. Labels, which are written in point sections, separate HTML components.

2.3.2.1 CSS

Potential performance assessments take into account how effectively the planned development activities would fit into the present business environment, including the master plan, departure date, corporate culture, and existing business structures. The essential findings should be conveyed throughout planning and improvement to guarantee a dignified outcome. To guarantee a decent result, needed useful results ought to be passed on during plan and improvement. This division can fabricate content accessibility, give more prominent versatility and control when portraying show characteristics, and license various regions to share planning by giving the important CSS during an alternate cycle. Lessen the construction content's multifaceted nature and redundancy by utilizing a css record.

CSS data is habitually gotten from an assortment of sources. For these resources, an online programme, client, and therefore creator takes a lot of time. Line, media type, value, selectable options, legal application, asset, and asset description are all subcategories of creator competence. CSS style data is always available as a separate archive or as an HTML text embedding. Bringing in various templates is normal. Various styles are every now and again utilized relying upon the yield media; for instance, the screen adaptation is often impressively not quite the same as the printed form, permitting creators to change the show to every medium. The substance is shown by the plan sheet with the most elevated need. Declaratives that aren't set in the most noteworthy need source, similar to the client specialist style, are shipped off a lower need source. The interaction is known as falling.

One of CSS's objectives is to give shoppers more command over their presentation. Somebody who experiences difficulty perusing red italic headings can utilize a particular sheet. Contingent upon the program and in this manner the site, a client can look over various templates given by the fashioners, erase any additional styles and consider the area utilizing

the program's default styling, or simply abrogate the red italic heading style without changing different characteristics.

2.3.3.1 JavaScript

Based on particular ECMAScript, JavaScript is a sensitive, translated level of link language. JavaScript, in addition to HTML and CSS, may represent a continuation of the Internet process. JavaScript is a component of a web application that allows it to withstand the elements. It is used in a broader geographic region, and major web projects have their own JavaScript engine. JavaScript is a multidisciplinary language that adheres to essential programming standards such as event-based, logical, and logical programming (to measure object programmatically and model-based). Text-based APIs, collections, dates, generic definitions, and the DOM are all present, but no organising, collection, or editing frameworks are. This feature is available in the context in which we are being assisted. JavaScript is not released by any pariah frameworks or libraries, according to Vanilla JavaScript and Vanilla JS. Google Chrome extensions, Opera extensions, Apple Safari 5 extensions, Apple Dashboard Widgets, Microsoft Gadgets, Yahoo! Contrasts, Google Desktop Gadgets, and Serence Klipfolio are all completely compiled using JavaScript.

2.3.2 Tools

2.3.2.1 PHP

PHP is a worker side programming language for making both static and dynamic web applications. PHP represents Hypertext Pre-processor, which was recently alluded to as private Home Pages. PHP content can simply experience a surge in demand for frameworks that use the PHP programming language. On customer PCs, PHP contents can be gotten to utilizing just a web program. A PHP record ends with the augmentation ".php" and contains PHP labels.

PHP represents Hypertext Pre-processor and is an abbreviation for PHP. PHP is a worker side programming language that was made considering web improvement. PHP can be handily joined in HTML records, and HTML codes can even be composed while a PHP document is being composed. PHP varies from customer side dialects, for example, HTML in that PHP codes are performed on the worker, however HTML codes are delivered promptly on the program.

PHP is an extensively valuable programming language that was at first made for web improvement. Rasmus Lerdorf prepared the idea in 1994. PHP code can in like manner be gone through a request line interface (CLI), participated in HTML code, or got together with an arrangement of web design systems and site page engineers.

web structures, and the board systems PHP code is regularly unraveled by a PHP arbiter, which can be presented as a module or run as a standard Gateway Interface (CGI) application on a web laborer. The delayed consequences of the unraveled and executed PHP code are yield by the online specialist, which can be any sort of data, for instance, made HTML code or twofold picture data. PHP is regularly used for a variety of programming practices that are not related to the web, for instance, free graphical applications and mechanized robot control.

2.3.2.2 MySQL

MySQL is an organized order language upheld open-source electronic information framework for basic administration (RDBMS) (SQL). It's a segment of the famous LAMP stage, which comprises of Linux, Apache, MySQL, and PHP. My SQL is right now possessed by Oracle. My SQL information base is accessible on all major working frameworks. It is viable with BSD Unix, Linux, Windows, and Mac OS. My SQL is utilized by Wikipedia and YouTube. Consistently, these destinations handle an enormous number of searches. My SQL is accessible in two variants: worker framework and implanted framework.

RDBMS TERMINOLOGY

- Let's review a few definitions related to the MySQL database system before moving on to the following stage.
- **Database:** A database is a set of tables that hold connected information.
- **Table:** A data matrix can be a table. A database table looks like a basic spreadsheet.
- **Column:** One column (data element), such as the postcode column, contains data of a comparable type.
- **Row:** A row (also known as a tuple, entry, or record) is a collection of connected data, such as the details of a single subscription.
- **Redundancy:** To make the system speedier, data is stored twice, redundantly.

- **Primary Key:** One-of-a-kind is a main key. A key value cannot appear twice in the same table. Only one row can be found with a key.
- **Foreign Key:** A foreign key is a key that connects two tables.
- **Referential Integrity:** A foreign key's worth must be determined always refer to an existent row, according to referential integrity.

2.3 Summary

Chapter 2, the literature survey discusses abstract survey of the published papers and if any disadvantages identified in paper.

Chapter 3

Software Requirement Specifications

The beginning of most programming frameworks is in the need of a customer, who either needs to mechanize a current manual framework or wants another product framework. The actual product is made by the engineer at long last the completed framework will be utilized by the end-client. Subsequently, Three huge partners are keen on a substitution framework.: the customer, the clients, and accordingly the designer. The designer should be educated regarding the framework necessities that will address the customers' issues and address the clients' interests.

The issue is that most customers are new to programming or the product advancement measure, while engineers are new to the customer's concern and application region. Thus, there is a correspondence gap between the numerous gatherings associated with the improvement project.

One of the essential objectives of programming prerequisite particulars is to close the hole in correspondence. SRS is the means through which the customer's and client's necessities are decisively characterized; indeed, SRS is the establishment of programming advancement.

A good SRS should please all stakeholders, which is difficult to achieve and requires trade-offs and persuasion.

3.1 Functional Requirements from a service perspective

The stakeholders of the system are identified and their requirements are listed in the following section.

3.1.1 Module of Management:

The Administrator's responsibilities include:

- To log in to the system, the administrator must use a separate password and username.
- They can log in to the system if the username and password are correct.
- Check out the homestay You have the ability to edit and remove your homestay.
- Add a new list of alerts to the city page and post a special offer.
- Enter / View Price and Availability.
- Include hyperlinks. Adding and browsing links from the comfort of one's own home.

- 7. Disallows the user to observe their own status.
- Limit user access to further information without requiring them to check in.

The following actions are available to the manager:

- Login
- Password Change
- Control Functions
 - Keep an eye on your homestay;
 - enter your homestay;
 - post offers;
 - edit or delete hotels
 - g. Add photos from your home.
- 4. Close your browser.

3.1.2 User Module:

User performance is defined as:

1. A possible replacement user can register electronically by providing the necessary information.
2. The user must connect in to the system using his own username and password.
3. He or she can access the draught if the option for username and password is enabled.
4. The user can change his password, but in order to do so, he must first invite the old password, then the new password, and then confirm the new password.
5. Look at the categories.

The following actions are available to the user:

- Create an account
- Log in
- Change your password
- Advanced Search
 - Booking
 - Payment
 - User Performance

3.2 Functional Requirements

Item highlights or capacities that engineers should execute with the goal for clients to finish their obligations are known as utilitarian necessities. Subsequently, it's basic to make them gem clear for both the occasion group and the partners. Practical necessities, as a rule, portray how a framework acts under determined conditions.

3.2.1 Login Functionality:

The login screen permits enlisted clients to get to the entirety of the administrations that their record awards them admittance to. In the event that they fill in their username and secret key and, snap present, their accreditations are approved and they are signed in case they are right. If they are incorrect, an error notice is displayed. If a user forgets their password, they can get to a password recovery screen by clicking "Forgot Password?". In the event that the client doesn't have a record, they click the register fasten and be taken to the register.

3.2.2 Registration Process

3.2.2.1 Adding Room& price: Homestay Management enables the staff at the front desk to include new plants and seeds in the system.

3.2.3 Check Out of SRS:

3.2.3.1 Deleting Customer ID & Room ID: The Admin in the administration section of the ward can delete the Customer ID from the system when the Customers checkout from the hotel.

3.2.3.2 Adding to room available list: The Admin in the administration section of the ward can put the room empty in the list of rooms available.

3.4.1 Admin to User

Input: Input is the dataset containing the parameters like Name, Age, Address, booking date, and time and location, and rate charges.

Output :

- The Administrator must use his or her secret phrase and username to log into the framework.
- If the username and password are correct, you may log in to the system.

- Check out the homestay You have the ability to edit and remove your homestay.
- Submit offers and add a new residential notice to the list.
- Enter / View Price and Availability.
- Include hyperlinks. Adding and browsing links from the comfort of one's own home.
- Disallows the user to observe their own status.
- Limit user access to further information without requiring them to check in.

3.4.2 User to Admin

The Functionalities of the User is:

Another client can enlist with the apparatus by entering his proper subtleties.

The User should sign in to the framework with an interesting his/her secret phrase and username.

Assuming the username and secret key are approved, he can access the framework.

The User can change his secret key, to fluctuate the secret word, it should welcome the old secret word, new secret word and guarantee new secret phrase View the Categories.

3.5 Non-Functional Requirements

3.5.1 Economic Requirements

It refers to the value we get from the services in terms of benefits or results versus the entire cost of developing the services.

The development of new services improves the correctness of the system and reduces the time it takes to process applications and generate reports in the current system. Because the database is web-enabled, there is no need to spend money on client maintenance.

3.5.2 Operational Requirements

It alludes to the achievability of the administrations to be functional. A few administrations may perform splendidly as far as plan and execution, however they may miss the mark in reality setting. It entails a thorough examination of human needs as well as their technical knowledge.

Entering information, modifying information, and generating reports are all seamless and rapid in the current system.

3.5.3 Technical Requirements

It relates to whether the current application is completely supported by the software as of now accessible available. It investigates the benefits and drawbacks of utilising specific software for development as well as its practicality.

In the current framework, the interface is easy to use and doesn't need a lot of aptitude and preparing. The product that is utilized for creating is entirely reasonable for this applications since the clients require quick admittance to the online pages with a serious level of safety. This is accomplished through the incorporation of web workers and data set workers in a similar climate.

3.6 Summary

Chapter 3 discusses the detailed functional and non-functional requirements of the problem identified for the project.

Chapter 4

System Design

The process of system design entails conceiving, planning, and carrying out the plan through creating the required reports and inputs. At the end of the day configuration stage goes about as extension between the product necessity particular and execution stage, which fulfills those prerequisites. Framework configuration is the change of the investigation model into a framework configuration model.

4.1 Model View Controller Architecture

The controller is isolated from the frame and view model, according to MVC Architecture. It consists of levels. If it's a web-based engineering project. The user interface is entirely distinct from the Business Logic Layer.

The Worker runs the Database Layer and Business Logic Layer, whereas the Client Machine runs the User Interface Layer. HTML and Java Script are used to develop user interfaces. Database Connectivity and Business Login Servlets and JavaServer Pages (JSP) are utilised. For The JDBC API connects database-backed servlets and Jsps to the database. The webmaster is responsible for integrating customer interfaces with servlets and JSPs.

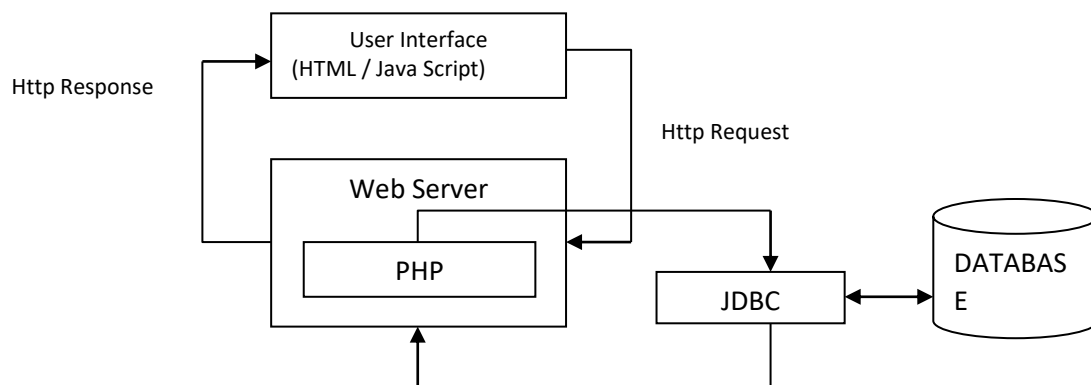


Figure 4.1: Block Diagram of Architecture

4.2 Context Diagram

Setting of the System All outer substances that may communicate with a framework are addressed in outlines. The system is depicted at the centre of the diagram, with no specifics of its internal structure, and is surrounded by all of its interacting systems, environments, activities.

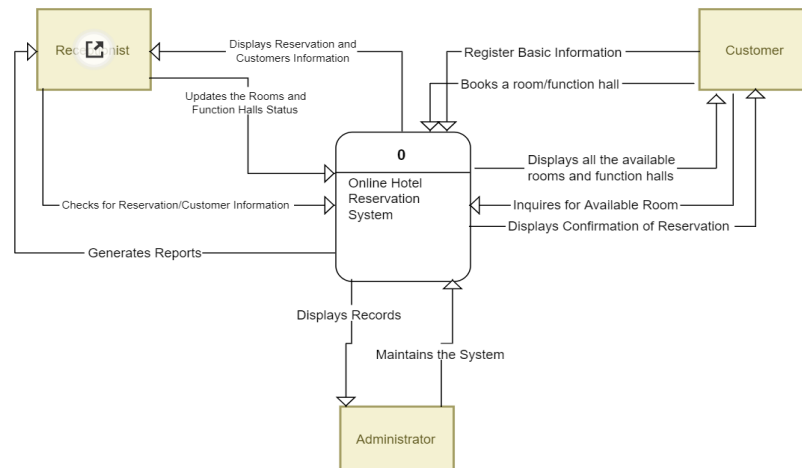


Figure: 4.2 Context diagram for E-Homestay

The Figure 4.2 illustrates the Context diagram for System Module on all activity with their respective work.

Chapter 5

Detailed Design

The Design Objectives include a number of different designs that we've used in our disease divination programme using learning equipment. Data flow diagrams, sequence diagrams, class diagrams, case diagrams, object diagrams, task diagrams, status chart diagrams, and deployment diagrams are all part of the software. We completed our assignment after creating these varied drawings and basing them on these designs.

We designed our system such that every time a user logs in, he or she must register, and a new user cannot use the system without first registering. After registering, the user will need to provide basic information such as their username, age, email address, phone number, and password. After that, the user must use the same username and password to log in to the system. Here are some of the capabilities of this system.

- **Booking Homestay** Once user successfully logged in to the system then he/she has to select the symptoms from the given drop-down menu.
- **Scheduling Homestay Hours:** The predictive model predicts the Ailment of a person he might have, based on the user entered symptoms

➤

5.1 Unified Modelling Language Diagrams

- The programmer can address an insightful model utilizing a demonstrating documentation that follows a bunch of syntactic, semantic, and practical standards.
- An UML framework is addressed by five separate points of view, every one of which depicts the framework from an alternate point. A progression of graphs is utilized to characterize each view, as seen underneath.

5.1.1 Structural model view

- The data and functionality in this model come from within the system.
- The static structures are modelled in this model view.

5.1.2 Behavioural Model View

- It represents the dynamic of behaviours as system parts by depicting the interactions of collection between various structural elements provided in the user model and structural model view.

5.1.3 Implementation Model View

- The system's structural and behavioural components are depicted as they will be built.

5.1.4 Environmental Model View

- This outline portrays the underlying and social parts of the climate wherein the framework will be carried out.
- UML is explicitly developed through two unique areas they are
- The client model and underlying model perspectives on the framework are the accentuation of UML Analysis demonstrating.

5.2 Use case Diagrams

Use case Diagrams portray the framework's usefulness according to the point of view of a client. To address the usefulness of the framework, use cases are utilized during necessities elicitation and investigation. Entertainers are outer substances that communicate with the framework. Use cases focus on the system's behaviour from the outside. Users such as administrators, bank customers, and others, as well as another system such as a central database, are examples of actors.

5.2.1. Use Case of Customer

Customers reserve rooms by checking availability of dates and schedules and making payment.

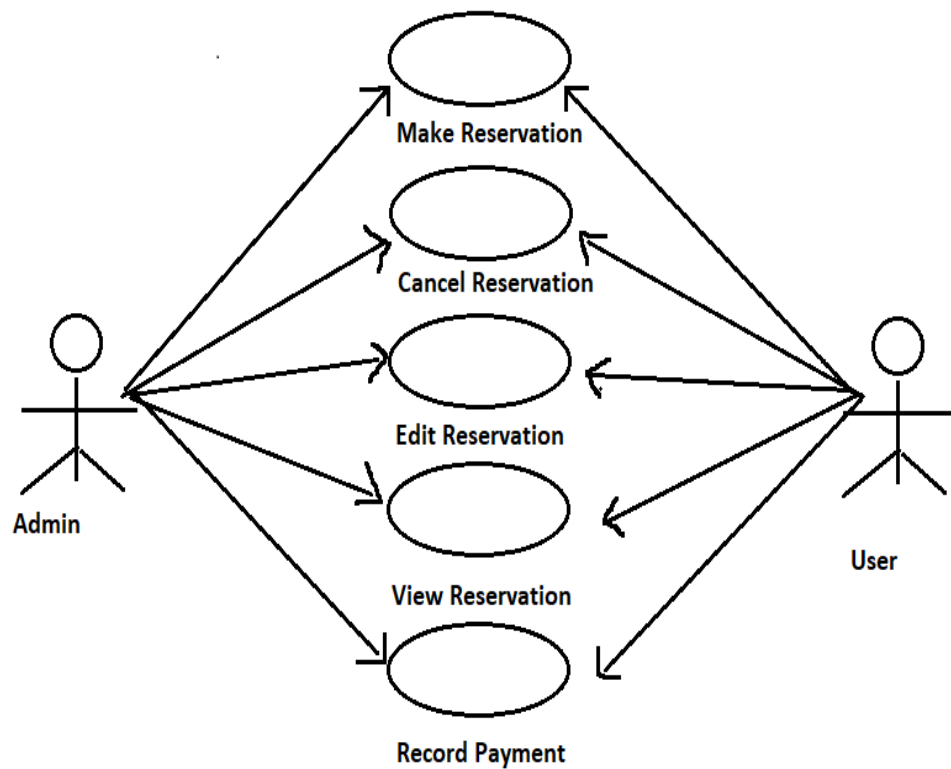


Figure 5.1 : Use case for Customer

The Figure 5.1 illustrates the use case diagram for the Customer Module Where Customer book Room by checking the availability of dates and Schedules by completing the Payments.

5.1.2 Use case Diagram for Admin and Users

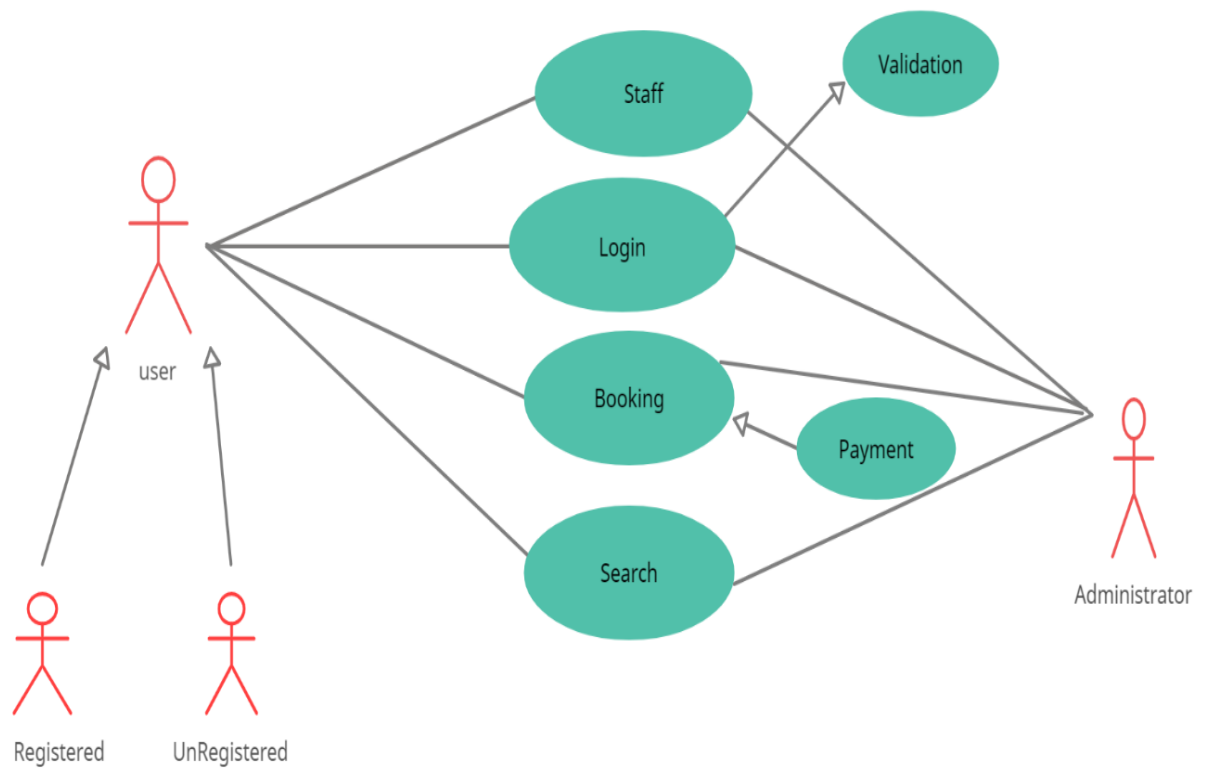


Figure 5.2: Use case for Admin

The Figure 5.2 illustrates the Use case for Admin Module where Admin is capable of booking the rooms and accepting the payments from the users

5.2 Class Diagrams

Class diagrams are widely used to describe the many categories of items and their interactions in a system. These use features like classes, packages, and objects to model the class structure and contents. When building a system, class diagrams depict three separate perspectives. Conceptualization, specification, and implementation are all part of the process.

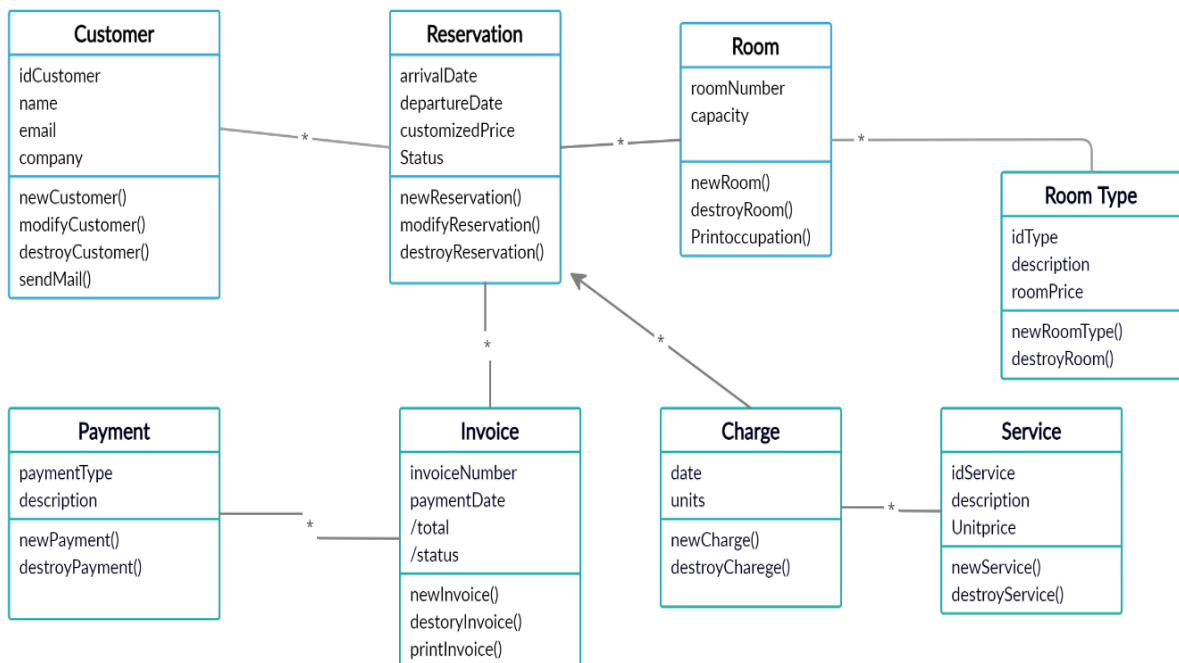


Figure 5.3: Class Diagram for E-Hotel management System

The The Figure 5.3 illustrates the class diagram for the Modules like Users, Homestay Owners and Admin to Describe their attributes and Functionalities.

5.3 Interaction Diagrams

Sequence diagrams and collaboration diagrams are both examples of interaction diagrams. These are two of the five diagrams in the UML that are used to model the dynamic characteristics of systems. An interaction diagram illustrates a sequence of items and their relationships, as well as any messages that may be sent between them.

5.3.1 Sequence Diagrams

Multiple processes or items that live at the same time are depicted as equal vertical lines (“life lines”), and the messages transferred between them are depicted as horizontal arrows, in the request where they occur. This allows for the graphical representation of common runtime scenarios.

5.3.1.1 Sequence Diagram for Registration Sequence

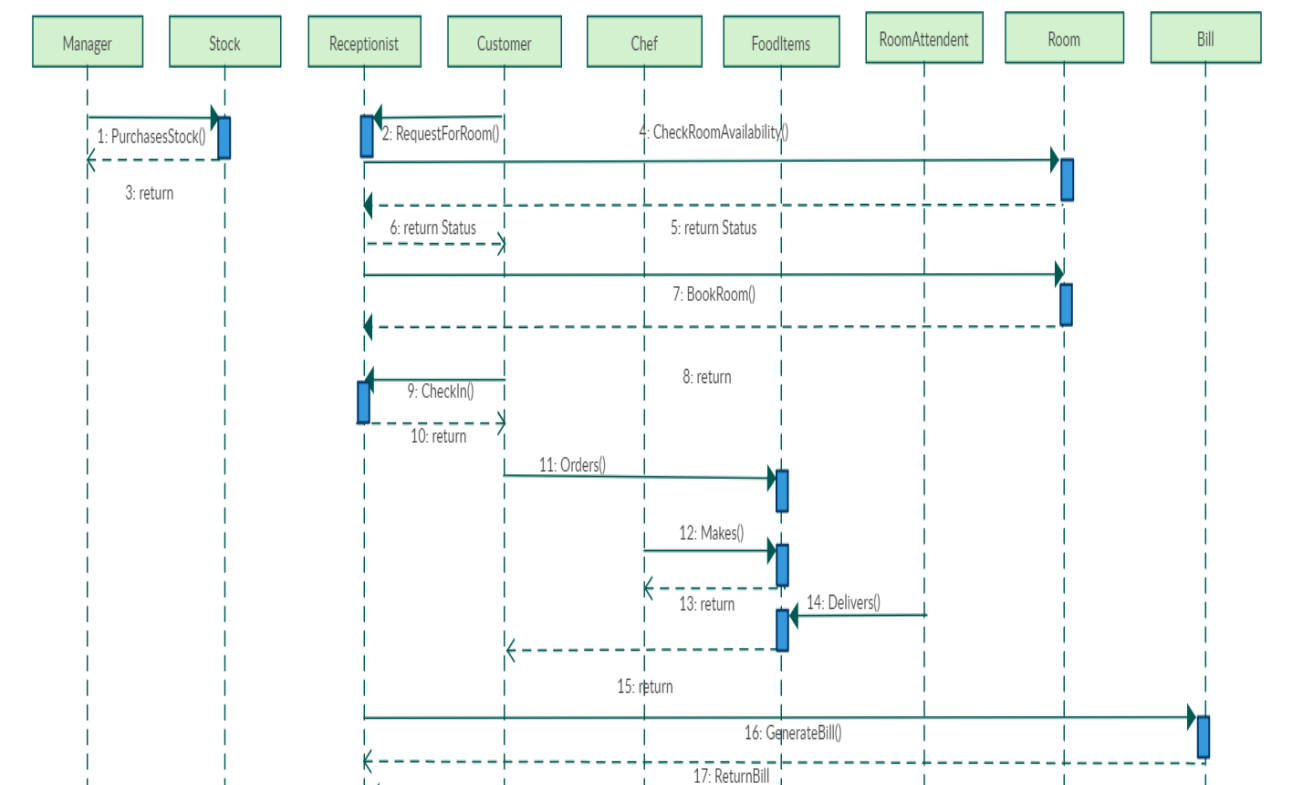


Figure: 5.4 Sequence Diagram for Admin

The Figure 5.4 illustrates the sequence diagram for Customer Module on booking of appointments with their respective room completing the Payments

5.3.2 Collaboration Diagrams

The organisation of the items that participate in an interaction is shown in a collaboration diagram. The path, which indicates how one object is related to another, and the sequence number, which indicates the time order of messages by prefixing with a number, are two distinct features of a sequence diagram to describe.

5.3.2.1 Collaboration Diagram for Administration Collaboration

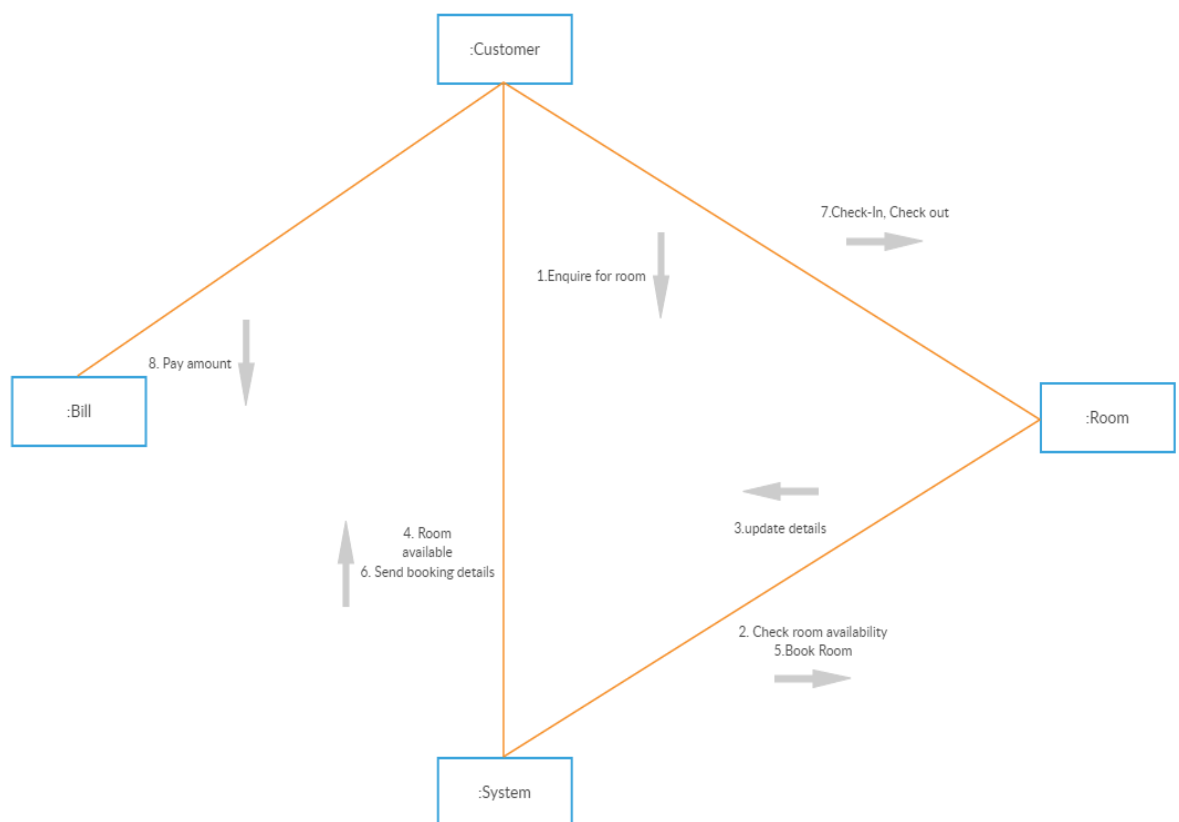


Figure: 5.5 Collaboration Diagram for Admin

The Figure 5.5 illustrates that the functionalities of Admin module where Admin manages the System and is responsible for the approval of manager registration to the site and booking room

5.4 Activity Diagram

Action outlines are graphical portrayals of work processes of stepwise exercises and activities with help for decision, cycle and simultaneousness.

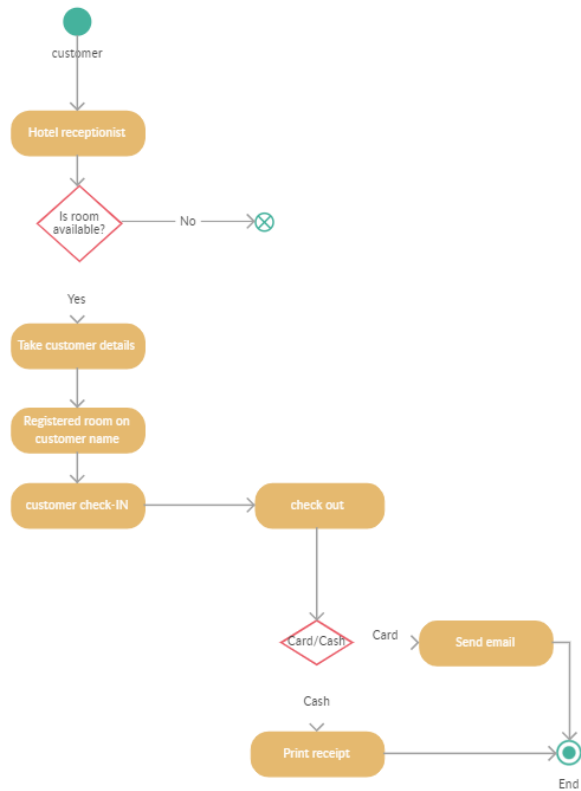


Figure: 5.6 Activity diagram for E-Homestay

The Figure 5.6 illustrates that the functionalities of Homestay where Admin manages the System and is responsible for the approval of admin registration to the site and booking room.

5.5 Deployment Diagram

The delivery diagram depicts the processing time period as well as the parts that make up the time frame. Display diagrams are a sort of construction diagram that are used to represent the material of a target item. The deployment diagram depicts the project's final step as well as the model's appearance after all of the procedures have been completed and the machine has been installed. Begin by observing how the system handles user input data and comparing it to that.

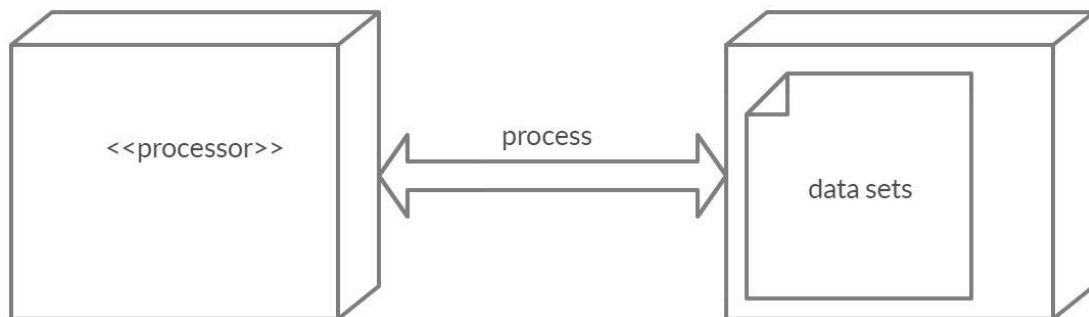


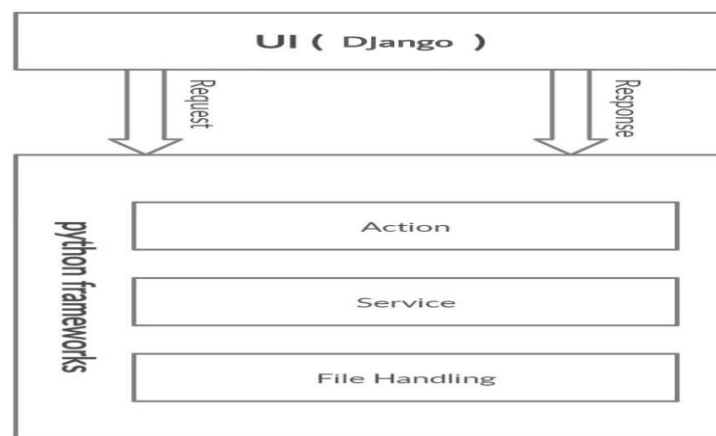
Fig 5.8 Deployment Diagram for TavaruMane Homesstay

The Fig 5.8 illustrates the Deployment diagram which refers the Datasets Processing Technique. The Datasets for the Ailment Divination Model is referred from the Health Websites Health Department Officials and the corresponding Data's in the kaggle.com. These datasets are stored in the database and the symptoms inputs from the Patients are trained together by applying several Machine learning algorithms which includes several techniques referred as naïve bayes classifier algorithms, KNN for predicting the nearest value, and Decision Tree algorithms for substituting the values according the Values that matches with the stored dataset in the Model.

5.9 Interface and Framework Diagram

The Figure 5.9 is the structure which we will use in our project Ailment divination using Machine learning.

- The User Interface of this system consists of Python's library interface called Django.
- Then it goes into the framework model where all the actions and services are combined and then the result is processed.
- It also consists of file system where all the user related information is stored such as username, password, age, phone, email.
- Below is the structure of the User Interface along with necessary implementations.



- After the User Interface it consist of the framework in which the system works accordingly using all the technologies, algorithms and various tools in which the project works accordingly.
- The framework consists of all the modules starting from the data preparation, data building and assessment stage.
- All these three factors are then going into the data collection phase, where the data is classified accordingly using the appropriate models and algorithms such as decision tree, naïve bayes, random forest.
- Then all those algorithms use the datasets and it forms the sets where all the previous data is stored, then using that data it compares with the new data.

5.5 Summary

- Chapter 5 discusses the System Architecture Context Design Use case design, Sequence design and collaboration design of the Project or System.

Chapter 6

Implementation

6.1 Implementation Code

In the tech world, the expression "Implementation" is as often as possible used to depict the connections of components in programming dialects. To implement in PHP, where the term is frequently used, means to recognise and use a piece of code or a programming asset written into the programme.

6.1.1 Display Room booking details to Admin

```

roombook.php
C: > xampp > htdocs > Tavarumane HomeStay Sirsi > Tavarumane HomeStay > admin > roombook.php

1  <?php
2  session_start();
3  if(!isset($_SESSION["user"]))
4  {
5      header("location:index.php");
6  }
7  ?>
8
9  <?php
10     if(!isset($_GET["rid"]))
11     {
12
13         header("location:index.php");
14     }
15     else {
16         $curdate=date("Y/m/d");
17         include ('db.php');
18         $id = $_GET['rid'];
19
20
21         $sql ="Select * from roombook where id = '$id'";
22         $re = mysqli_query($con,$sql);
23         while($row=mysqli_fetch_array($re))
24         {
25             $title = $row['Title'];
26             $fname = $row['FName'];
27             $lname = $row['LName'];
28             $email = $row['Email'];
29             $nat = $row['National'];


```

```
roombook.php ●
C: > xampp > htdocs > Tavarumane HomeStay Sirsi > Tavarumane HomeStay > admin > roombook.php

21 $sql = "Select * from roombook where id = '$id'";
22 $re = mysqli_query($con,$sql);
23 while($row=mysqli_fetch_array($re))
24 {
25     $title = $row['Title'];
26     $fname = $row['FName'];
27     $lname = $row['LName'];
28     $email = $row['Email'];
29     $nat = $row['National'];
30     $country = $row['Country'];
31     $Phone = $row['Phone'];
32     $troom = $row['TRoom'];
33     $nroom = $row['NRoom'];
34     $bed = $row['Bed'];
35     $non = $row['NRoom'];
36     $meal = $row['Meal'];
37     $cin = $row['cin'];
38     $cout = $row['cout'];
39     $sta = $row['stat'];
40     $days = $row['nodays'];
41
42 }
43
44 }
45
46
```

The above prescribe code illustrates that the Admin can view the user who have booked their rooms respective to their details and allowed to approve and reject the booking requests from the Admin.

6.1.2 Display of payment method

C: > xampp > htdocs > Tavarumane HomeStay Sirsi > Tavarumane HomeStay > admin >  print.php

```
163
164
165     <?php
166     ob_start();
167     include ('db.php');
168
169     $pid = $_GET['pid'];
170
171
172
173     $sql ="select * from payment where id = '$pid' ";
174     $re = mysqli_query($con,$sql);
175     while($row=mysqli_fetch_array($re))
176     {
177         $id = $row['id'];
178         $title = $row['title'];
179         $fname = $row['fname'];
180         $lname = $row['lname'];
181         $troom = $row['troom'];
182         $bed = $row['tbed'];
183         $nroom = $row['nroom'];
184         $cin = $row['cin'];
185         $cout = $row['cout'];
186         $meal = $row['meal'];
187         $ttot = $row['ttot'];
188         $mepr = $row['mepr'];
189         $btot = $row['btot'];
190         $fintot = $row['fintot'];
191         $days = $row['noofdays'];
192
```

```

C: > xampp > htdocs > Tavarumane HomeStay Sirsi > Tavarumane HomeStay > admin > print.php
194
195
196     }
197
198     $type_of_room = 0;
199     if($stroom=="Superior Room")
200     {
201         $type_of_room = 320;
202     }
203
204     else if($stroom=="Deluxe Room")
205     {
206         $type_of_room = 220;
207     }
208     else if($stroom=="Guest House")
209     {
210         $type_of_room = 180;
211     }
212     else if($stroom=="Single Room")
213     {
214         $type_of_room = 150;
215     }
216
217     if($bed=="Single")
218     {
219         $type_of_bed = $type_of_room * 1/100;
220     }
221     else if($bed=="Double")
222     {
223         $type_of_bed = $type_of_room * 2/100;
224     }

```

```

C: > xampp > htdocs > Tavarumane HomeStay Sirsi > Tavarumane HomeStay > admin > print.php
194
195
196     }
197
198     $type_of_room = 0;
199     if($stroom=="Superior Room")
200     {
201         $type_of_room = 320;
202     }
203
204     else if($stroom=="Deluxe Room")
205     {
206         $type_of_room = 220;
207     }
208     else if($stroom=="Guest House")
209     {
210         $type_of_room = 180;
211     }
212     else if($stroom=="Single Room")
213     {
214         $type_of_room = 150;
215     }
216
217     if($bed=="Single")
218     {
219         $type_of_bed = $type_of_room * 1/100;
220     }
221     else if($bed=="Double")
222     {
223         $type_of_bed = $type_of_room * 2/100;
224     }

```

```

print.php X roombook.php ● Untitled-1
C: > xampp > htdocs > Tavarumane HomeStay Sirsi > Tavarumane HomeStay > admin > print.php
226 {
227     $type_of_bed = $type_of_room * 3/100;
228 }
229 else if($bed=="Quad")
230 {
231     $type_of_bed = $type_of_room * 4/100;
232 }
233 else if($bed=="None")
234 {
235     $type_of_bed = $type_of_room * 0/100;
236 }
237
238 if($meal=="Room only")
239 {
240     $type_of_meal=$type_of_bed * 0;
241 }
242 else if($meal=="Breakfast")
243 {
244     $type_of_meal=$type_of_bed * 2;
245 }else if($meal=="Half Board")
246 {
247     $type_of_meal=$type_of_bed * 3;
248 }else if($meal=="Full Board")
249 {
250     $type_of_meal=$type_of_bed * 4;
251 }
252 }

```

The above prescribed code illustrates that user can pay the amount based on their rooms and they can check the availability of the dates and weeks. The booking request is raised by the customer to their admin who has to approve or delete the scheduled appointment.

6.1.3 Display user interface

```
C: > xampp > htdocs > Tavarumane HomeStay Sirsi > Tavarumane HomeStay > admin > 🐞 home.php
52         </li>
53     </ul>
54     <!-- /.dropdown-user -->
55 </li>
56 <!-- /.dropdown -->
57 </ul>
58 </nav>
59 <!--/. NAV TOP -->
60 <nav class="navbar-default navbar-side" role="navigation">
61     <div class="sidebar-collapse">
62         <ul class="nav" id="main-menu">
63
64             <li>
65                 <a class="active-menu" href="home.php"><i class="fa fa-dashboard"></i> Status</a>
66             </li>
67             <li>
68                 <a href="messages.php"><i class="fa fa-desktop"></i> News Letters</a>
69             </li>
70             <li>
71                 <a href="roombook.php"><i class="fa fa-bar-chart-o"></i> Room Booking</a>
72             </li>
73             <li>
74                 <a href="payment.php"><i class="fa fa-qrcode"></i> Payment</a>
75             </li>
76             <li>
77                 <a href="profit.php"><i class="fa fa-qrcode"></i> Profit</a>
78             </li>
79             <li>
80                 <a href="logout.php"><i class="fa fa-sign-out fa-fw"></i> Logout</a>
81             </li>
```

```
C: > xampp > htdocs > Tavarumane HomeStay Sirsi > Tavarumane HomeStay > admin > 🐞 home.php
88     </div>
89
90 </nav>
91 <!-- /. NAV SIDE -->
92 <div id="page-wrapper">
93     <div id="page-inner">
94
95
96         <div class="row">
97             <div class="col-md-12">
98                 <h1 class="page-header">
99                     Status <small>Room Booking </small>
100                 </h1>
101             </div>
102         </div>
103     <!-- /. ROW -->
104     <?php
105         include ('db.php');
106         $sql = "select * from roombook";
107         $re = mysqli_query($con,$sql);
108         $c =0;
109         while($row=mysqli_fetch_array($re) )
110         {
111             $new = $row['stat'];
112             $cin = $row['cin'];
113             $id = $row['id'];
114             if($new=="Not Conform")
115             {
116                 $c = $c + 1;
117             }
```

6.2 Screenshots

6.2.1 User Homepage

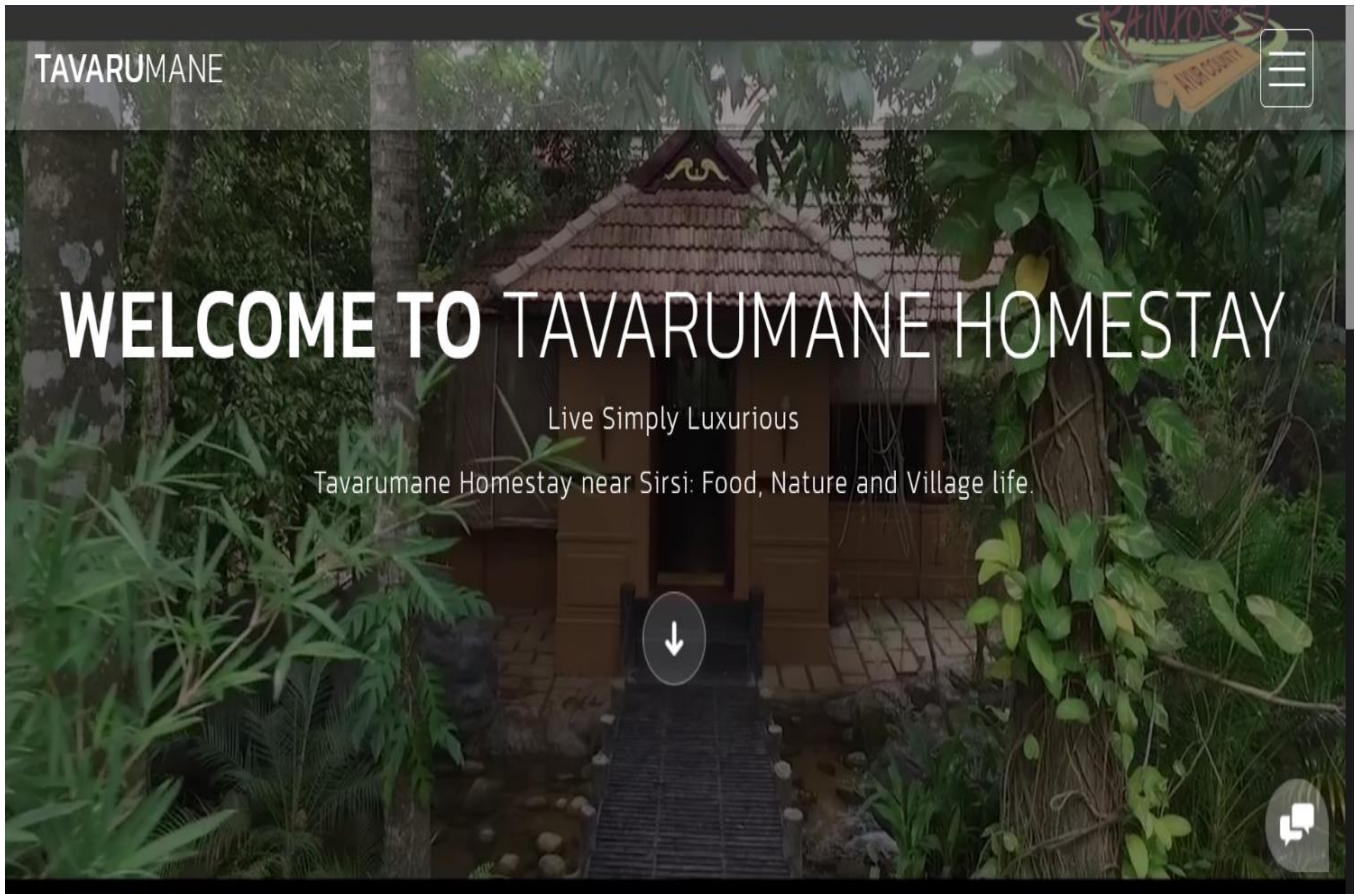


Figure: 6.1 Homepage for all User

The Figure 6.1 is the User Interface of the Index page of the Homestay for all the Users.

6.2.2. Admin Homepage

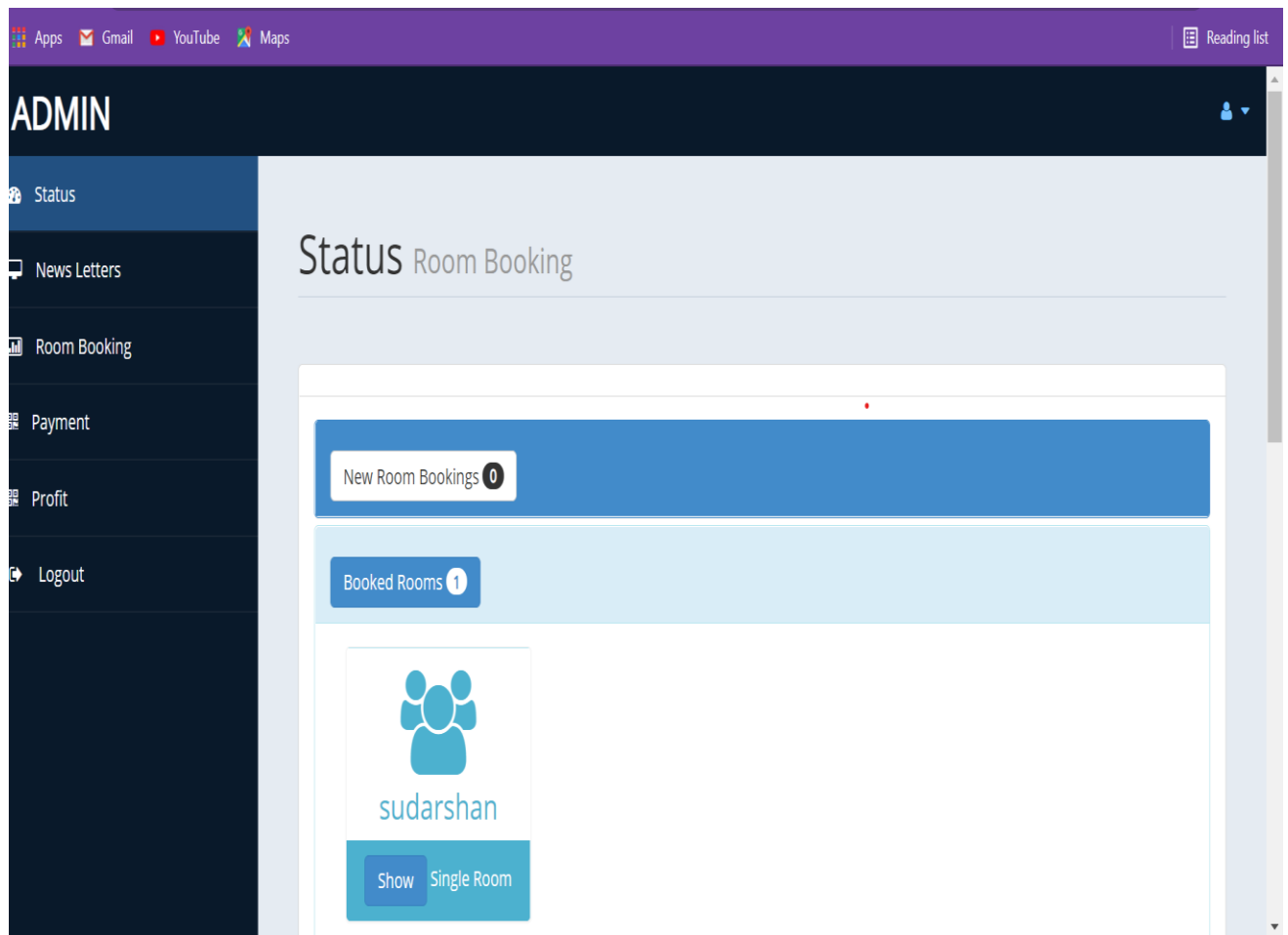


Figure: 6.2 Admin Homepage

The above prescribed figure is the homepage of Admin which includes all the functionality of the Admins such as Registration of admin, Approval or delete of requests by the customers to the rooms and report of all the booked rooms.

6.2.3 Payment Details

ADMIN

- Status
- News Letters
- Room Booking
- Payment**
- Profit
- Logout

Payment Details

10 records per page Search:

Name	Room type	Bed Type	Check in	Check out	No of Room	Meal Type	Room Rent	Bed Rent	Meals	Gr.Total	Print
Dr. abc s	Superior Room	Single	2021-07-17	2021-07-19	1	Room only	640.00	0.00	6.40	646.40	Print
Miss. abc M	Guest House	Quad	2021-07-20	2021-07-17	1	Breakfast	-540.00	-43.20	-21.60	-604.80	Print
Mr. sudarshan bhat	Single Room	Single	2021-07-22	2021-07-23	1	Room only	150.00	0.00	1.50	151.50	Print

Showing 1 to 3 of 3 entries

Previous **1** Next

Figure: 6.3 Payment Details

The above prescribed figure is the Payment Details of the hotel rooms, which is maintained by admin.

6. 2.4 Admin Appointments

The screenshot shows a web application interface for reservations. On the left is a dark sidebar with navigation links: 'Homepage', 'Go for payment', 'Download receipt', 'Give Feedback', and 'Get Back'. The main content area is titled 'RESERVATION' and contains two side-by-side form panels.

PERSONAL INFORMATION

- Title* (dropdown menu)
- First Name (text input)
- Last Name (text input)
- Email (text input)
- Nationality* ☒ Indian ☐ Non Indian
- Passport Country* (dropdown menu)

RESERVATION INFORMATION

- Type Of Room * (dropdown menu)
- Bedding Type (dropdown menu)
- No.of Rooms * (dropdown menu)
- Meal Plan (dropdown menu)
- Check-In (calendar icon, placeholder: dd-mm-yyyy)
- Check-Out (text input)

Figure 6.4 Reservations

The above prescribed figure is the Viewpage of reservations where admin can view the reserved rooms by the customers. In this section include all validation field like mobile number,email,etc.

6.2.5 Booking Conformation

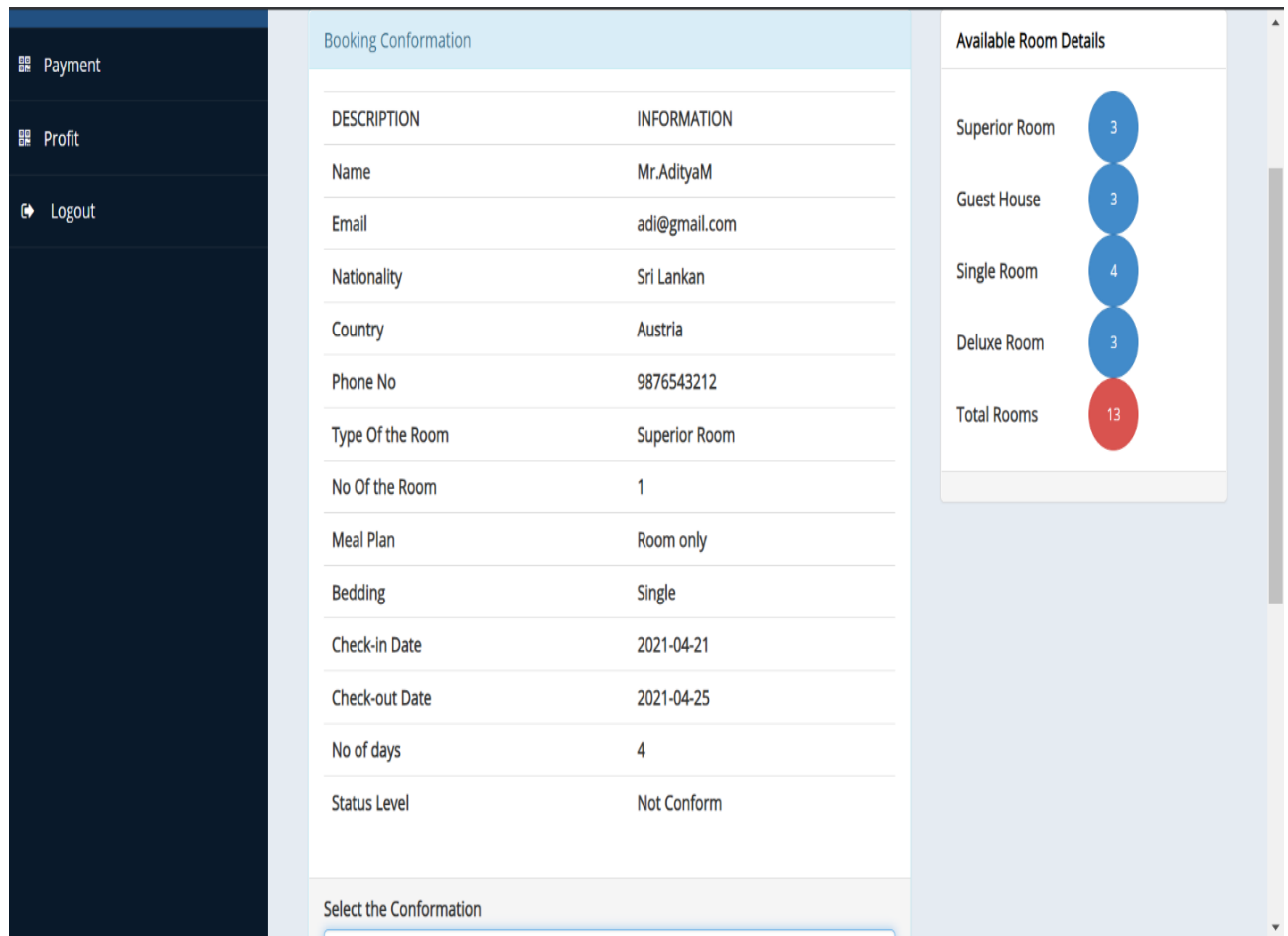


Figure: 6.5 Booking Conformation

The above prescribed figure is the View page of booking conformation where admin can view the rooms booked by customer and confirms the booking of rooms,

6.2.6 Displays Booking Records

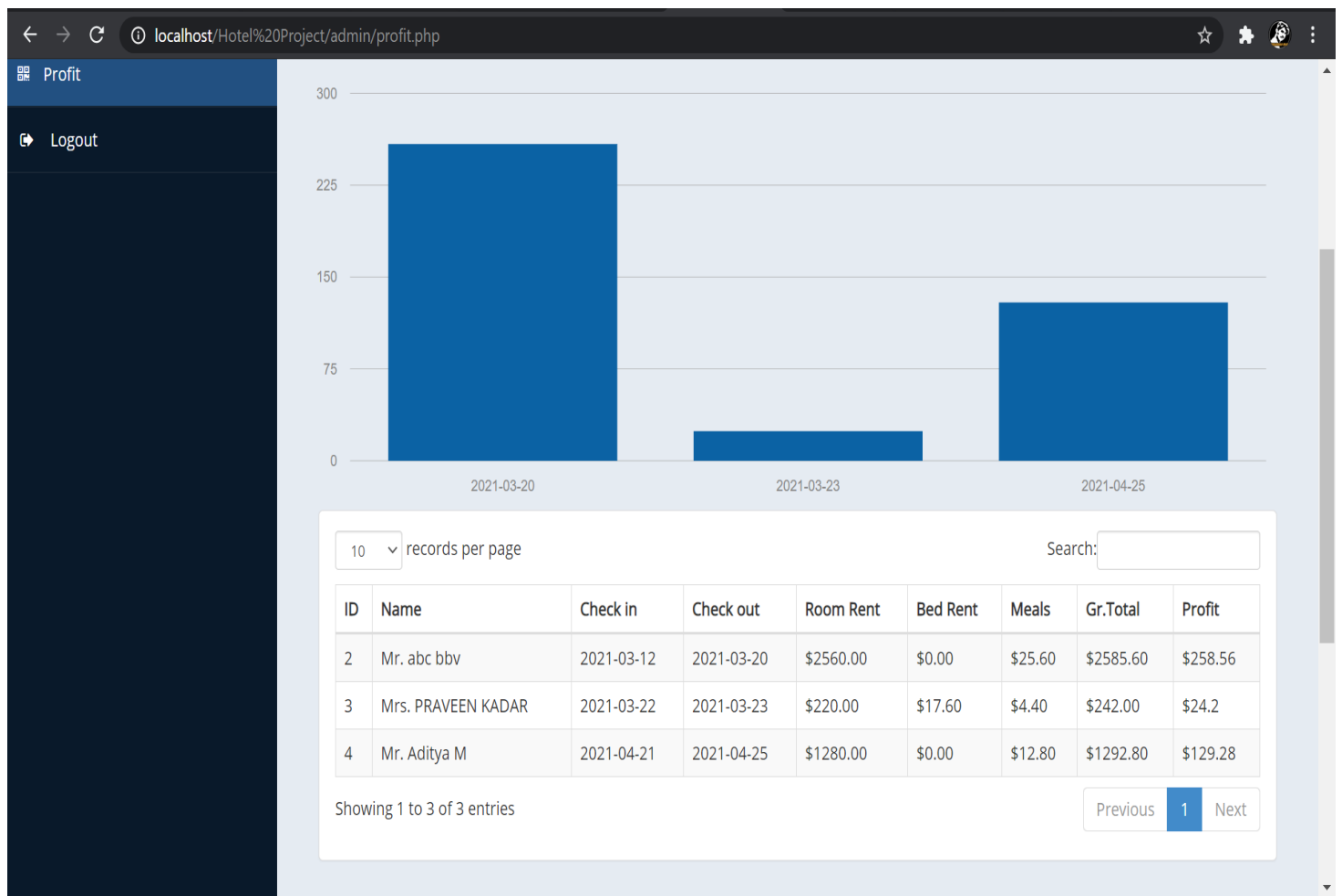
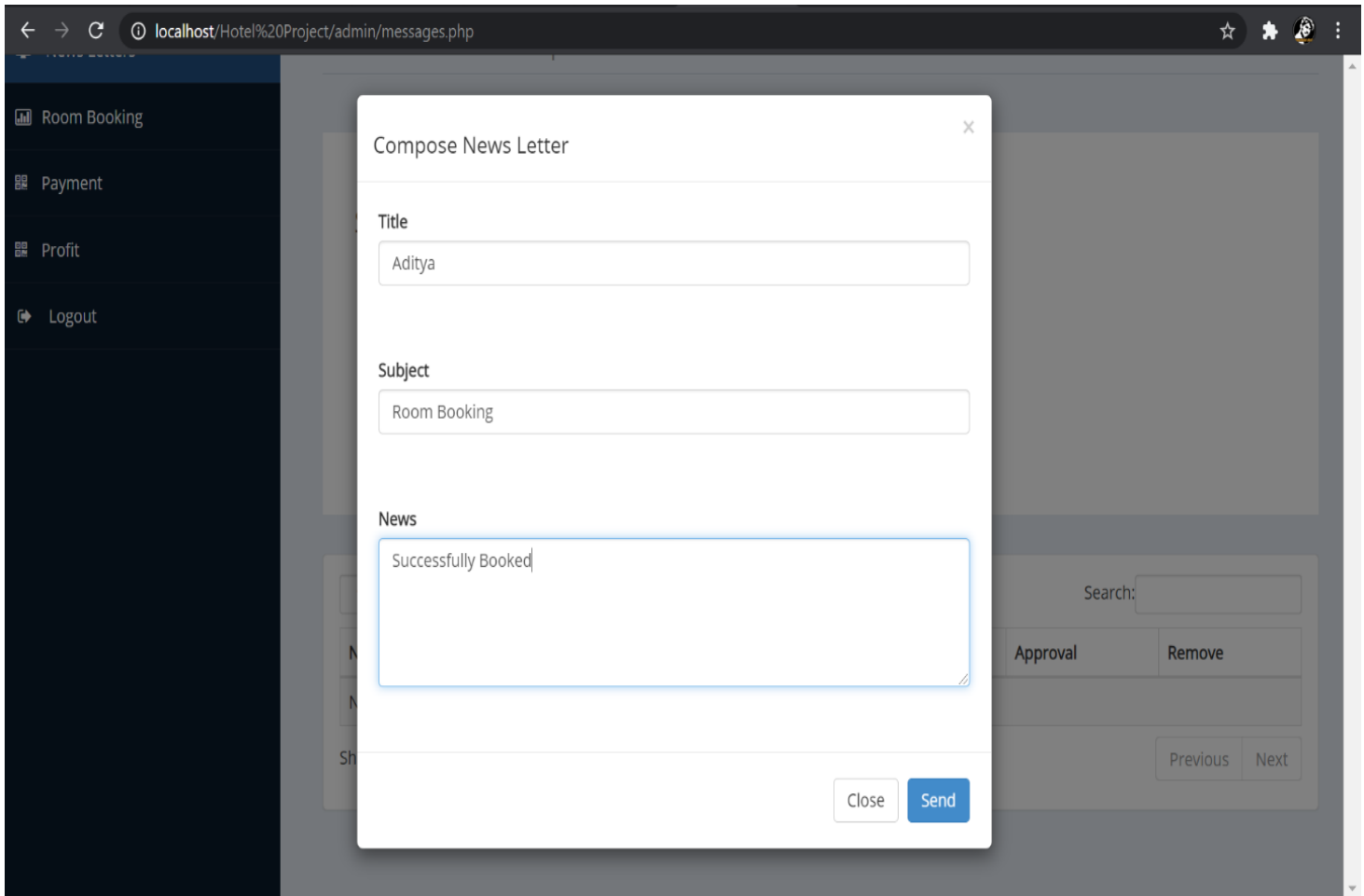


Figure: 6.6 Displays Booking Records

The above prescribed figure is the View page of booking records where admin can view the customer id, customer name, check in, check out, room rent, bed rent, meals, grand total, profit

6.2.7 Compose News Letter



The screenshot displays a web browser window at the URL `localhost/Hotel%20Project/admin/messages.php`. A modal window titled "Compose News Letter" is open, featuring three text input fields. The "Title" field contains "Aditya", the "Subject" field contains "Room Booking", and the "News" field contains "Successfully Booked". At the bottom right of the modal are "Close" and "Send" buttons. The background interface includes a dark sidebar with links for "Room Booking", "Payment", "Profit", and "Logout". The main content area is partially visible, showing a search bar and buttons for "Approval" and "Remove".

Figure: 6.7 Compose News Letter

The above prescribed figure is the conformation of booking of rooms, where it is done by the admin.

6.3 Summary

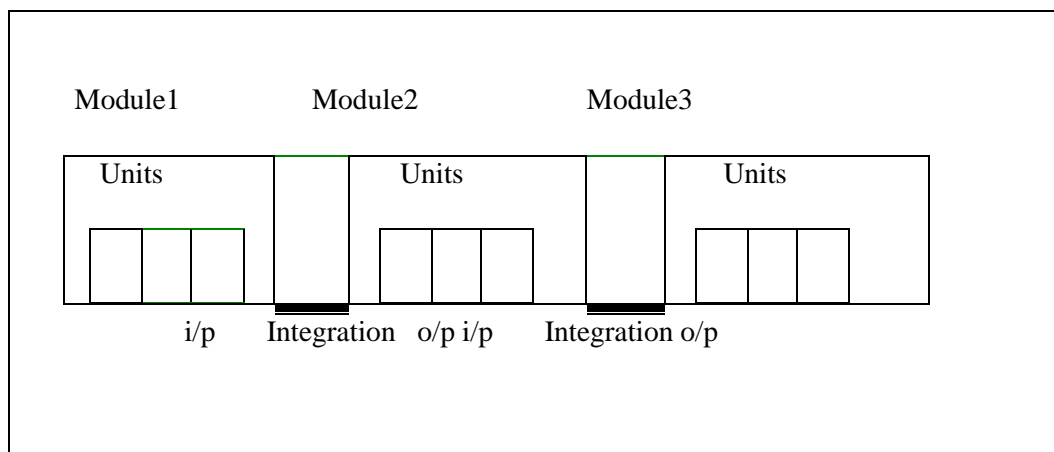
- The Core Implementation of Logic Code with Explanation and The Screen Shots Modules functionalities related to Usability of it in the Execution is discussed in the chapter 5.

Chapter 7

Software Testing

To deliver a high-quality product and thereby please customers, testing is described as the process of identifying, isolating, rectifying, and verifying that a product is defect-free. Running a programme with the intention of finding a mistake. The definition of quality is the rationale of the requirements. A defect is defined as a divergence from the specifications. A defect is nothing more than a bug. a test — There are bugs present. Testing can show the presence of bugs but not the absence of them. The terms "debugging" and "testing" are not interchangeable. A systematic attempt to break a programme or the AUT is known as testing. Debugging is the process of determining why a script or programme did not run properly.

7.1 Levels of Testing



System Testing: Presentation + business +Databases

† UAT: user acceptance testing

7.2 Test Cases Involved:

- Template for Test Case

T.C.No	Description	Exp	Act	Result

Guidelines for Test Cases:

1. GUI Test Cases:

- Total no of features that need to be check
- Look & Feel
- Look for Default values if at all any (date & Time, if at all any require)
- Look for spell check

Example for GUI Test cases:

T.C. No	Description	Expected value	Actual value	Result
1	Check for every one of the highlights in the screen	The screen should contain every one of the highlights		
2	Check for the arrangement of the article according to the approvals	The arrangement ought to be in legitimate manner		

2. Positive Test Cases:

- The positive flow of the functionality must be considered
- Valid inputs must be used for testing
- Must have the positive perception to verify whether the requirements are justified.

Example for Positive Test cases:

T.C. No	Description	Expected value	Actual value	Result
1	Check for the date Time Auto Display	The date and time of the system must be displayed		
2	Enter the valid Roll no into the student roll no field	It should accept		

3. Negative Test Cases:

- Must have negative perception.
- Invalid inputs must be used for test.

Example for Negative Test cases:

T.C.	Description	Expected value	Actual value	Result
1	Attempt to change the data in date and time	Modification should not be allow		
2	Enter invalid information in to the understudy subtleties structure click on Save	It ought not acknowledge invalid information, save ought not permit		

7.3 Summary

- Chapter 6 Includes the Types of Testing like Negative test Cases, Positive test Cases and GUI Test cases to the Each Core Functionalities of the System.

Chapter 8

Future Enhancement

This system is developed for the exclusively for the people of Tavarumane homestay visitors. It provides facilities to the user with user friendly modules with sub modules. This system is developed in understandable approach which can be easier to the layman of the computers. This system is developed totally GUI based and with smart links.

The motivation behind this load of works expects to give client a pleasuring experience and incredible client communication. Innovation changes the life, so learning new method continually is very fundamental and significant.

Chapter 9

Conclusion

This is to infer that the undertaking that I attempted was worked upon with a genuine exertion. A large portion of the prerequisites have been satisfied sufficient and the necessities which have been remaining, can be finished with a short augmentation. The venture made here is simply to guarantee that this item could be substantial in today genuine testing world. As of now the framework works for predetermined to work. In not so distant future it will be stretched out for some kinds of protection approaches with the goal that proficiency can be improved.

References

- [1] Satyen Amonkar, Nandan Doddihal (2017) “Design and Implementation of Tourism Enhancement Through Use of Web Mashup” IEEE International Conference.
- [2] Shan-Shan Mei, Chun Shan (2018)” Design and Implementation of Hotel Room Information Management System Based on Kendo UI Front-end Framework”4th Annual International Conference on Network and Information Systems for Computers.
- [3] Bogdan Walek, Radim Farana(2016)” Proposal of Expert System for Hotel Booking System” 2016 17th International Carpathian Control Conference (ICCC).
- [4] Z. W. Miao , T. Wei”Hotel’s Online Booking Segmentation for Heterogenous Customers” IEEE International Conference.