ONLINE HOTELBOOKING SYSTEM

PROJECT REPORT SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE AWARD OF DEGREE OF

BACHELOR OF COMPUTER APPLICATIONS

TO

MARIAN COLLEGE KUTTIKKANAM (AUTONOMOUS)

Affiliated to

MAHATMA GANDHI UNIVERSITY, KOTTAYAM

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APRIL 2022

DECLARATION

I, **ANINA ABRAHAM [Reg.No 19UBC109]** certify that the Main project report entitled **"ONLINE HOTEL BOOKING SYSTEM"** is an authentic work carried by me at Marian College Kuttikkanam (AUTONOMOUS). The matter embodied in this project work has not been submitted earlier for the award of any degree or diploma to the best of our knowledge and belief.

Signature of the Student:

Name of the student:**ANINA ABRAHAM**

Date:

BONAFIDE CERITIFICATE

This is to certify that this project work entitled **"ONLINE HOTEL BOOKING SYSTEM"** is a bonafide record of work done by **ANINA ABRAHAM [Reg.No 19UBC109] at MARIAN COLLEGE KUTTIKKANAM (AUTONOMOUS)** in partial fulfilment for the award of **Degree of Bachelor of Computer Applications** of **Mahatma Gandhi University, Kottayam.**

This work has not been submitted elsewhere for the award of any other degree to the best of our knowledge.

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Department Seal

External Examiner

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Anina Abraham

ABSTRACT

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Online Hotel Booking System is an online portal where customers will be able to search room availability with an online booking reservation system. They can also browse rooms, view room facility, check availability and book reservations. The customers can enter check in and check out dates and then search for availability of rooms along with the rates. After choosing the right room in the hotel, the authorization procedures are done on the site. Customers can access the site at their leisure and book their preferred rooms. They can also evaluate the accommodations based on pricing and services and select the best one for their needs. The administration staff will be able to see who is signing up for their sites and he can add, update and delete new booking details.

The primary objective of a Hotel Reservation Management System is to generalize and simplify the monthly or day-to-day activities of a hotel, such as room activities, check in of new customers, check out of customers, assigning a room based on customer requirements, and so on, which must be repeated on a regular basis. Our project's basic goal is to produce an efficient, fast, dependable, and user-friendly solution.

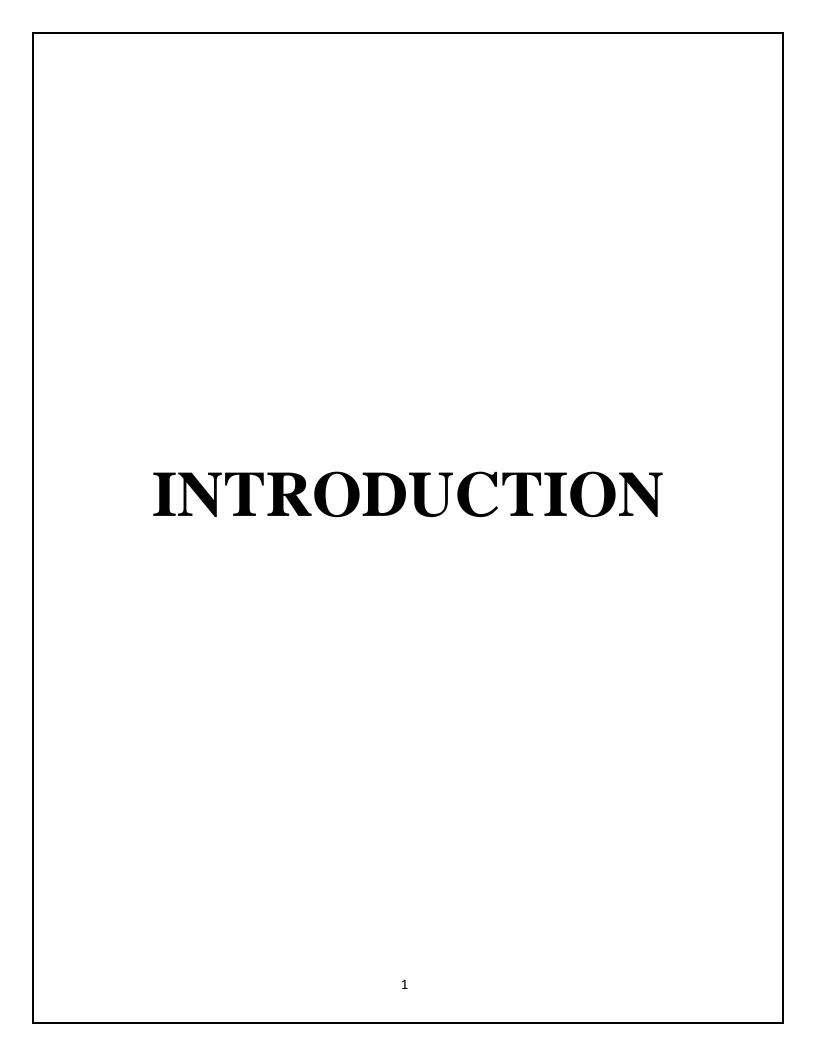This site is implemented PHP Laravel Framework as front end and MySql as back end.

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INTRODUCTION

1. INTRODUCTION

1.1 ABOUT THE PROJECT

A computer-based hotel management system is designed to handle all the primary information required to calculate monthly statements. This project intends to introduce more user friendliness in the various activities such as record updation, maintenance, and searching. We have designed the given proposed system to automate the process of hotels. This project is useful for the authorities which keep track of all the users registered in a hotel. The authority can add hotel packages, room details, availability of rooms, online booking etc.

This project is used by two types of users:

- Online Users.

- Administrator (management of the Hotel).

The main aim of the entire activity is to automate the process of day to day activities of Hotel like Room activities, Admission of a New Customer, Assign a room according to customer's demand, checkout of a computer and releasing the room etc.

This project intends to introduce more user friendliness in the various activities such as record updation, maintenance, and searching.

1.2 THE PURPOSE AND SCOPE

The main purpose of hotel reservation management is to help automate the room reservation of a hotel. The main objective of the proposed system is to eliminate the limitations of the existing system. In short, all the updation can be done very easily. The goals of Online Hotel Booking System are:

- To minimize the time for customers
- Quick processing
- To provide a searchable database to view the pictures of rooms, available packages and services of hotel

- Easy access to information

1.3 Existing System:

In the existing manual system, a lot of time is spent in communicating the information across different branches. There is a need for an integrated automated system, which has some centralized control over the entire process. Conventional system makes use of huge amounts of paper for recording transactions. The existing system is a manually maintained system. All the hotel records are to be maintained for the details of each customers, room allocation, payment details etc. All these details are entered and retrieved manually.

The existing system is not providing secure registration and profile management of all the users properly. This manual system gives us very less security for saving data and some data may be lost due to mismanagement. The system is giving only less memory usage for the users.

The existing system uses paperwork and direct human language communication by mouth to manage the hotel. This delays information transmission in the hotel. The documents are transferred manually to the filing department for completion of the guests' file.

Limitations of Existing System

- The word 'manual' itself makes the existing system outdated in today's hi-tech world.
- Processing of application manually takes a lot of time.
- Coordinating various departments in this respect is not only time taking but is also a cumbersome process
- A lot of time is also wasted in summing up records and repairing day wise reports of activities happened on server.
- The system is not deprived of common manual mistakes.
- The system is also prone to insecurities

1.4 Proposed System

To overcome the drawbacks of the existing system, the development of this new system contains the following activities. This system maintains user's personal info, address and contact details etc. This system makes the overall project management much easier and flexible. And provide accessibility control to data with respect to users. This system is providing more memory for the users to maintain data. Various classes have been used for maintaining the details of all the users.

SYSTEM ANALYSIS

2. The SYSTEM ANALYSIS

2.1 PROBLEM DEFINITION

Every project is feasible if given unlimited resources and infinite time. Unfortunately, the development of a computer system is more likely to be plugged by a scarcity of resources and difficult delivery dates. It is both necessary and prudent to evaluate the feasibility of the project at the earliest possible time.

2.2 ADVANTAGES OF PROPOSED SYSTEM

Advantages of Proposed System

1. The system avoids redundancy using several types of validation that is the system is enhanced
2. Quick access and processing are the main advantage that forces as to implement the proposed system.
3. The main alteration between the existing system and the new automated system lies in the specialty which reduces the time consumption in an appropriate manner.
4. Specification of the automated system helps to accumulate all the details of the candidate
5. This software can be easily extended to any area
6. It is trouble-free to use.
7. It is a relatively fast approach to register the candidate.
8. Is highly reliable and gives approximate result to the user.
9. Best user Interface

2.3 FEASIBILITY ANALYSIS

Feasibility study is a test of a system proposal according to its workability, ability to meet user objective of feasibility is not to solve the problem but to acquire a sense of its scope. The main aim of the feasibility study is to test the technical,

social and economic feasibility of the system. The feasibility study can be classified into the following categories:

- ➢ Operational Feasibility
- ➢ Technical Feasibility
- ➢ Economically Feasibility

2.3.1 OPERATIONAL FEASIBILITY

The proposed system offers greater of user friendliness combined with greater processing speed. Therefore, number of staff can be reduced. Since the processing speed is very high compared with manual system on that management can take timely actions depending on information's obtained. Since the workload is also reduced the management convenience that the project is operationally feasible.

After the feasibility, the analyst must formulate the problem. Whenever there is a problem defined in clear terms, then only the analyst can solve it using the necessary steps. This will help him to modularize the problem. Hence this stage of system study and problem formulation places an important role in system development life cycle.

2.3.2 TECHNICAL FEASIBILITY

Technical feasibility deals with hardware as well as software requirements and to what extend it can support the proposed system. The hardware required is a printer and software are PHP and MySQL server. If the necessary requirements are made available with the system, then the proposed system is said to be technically feasible.

2.3.3 ECONOMICALLY FEASIBILITY

Even though an initial investment must be made on the software and the hardware aspects, the proposed system aims at processing of information's efficiently, thus saving the time and money. Since, the existing system is manual on the feasibility for wrong data entry is higher and consumes a lot of time. Thus, the benefits acquired out of the system are enough for the project to be undertaken.

2.4 RECOMMENDED IMPLEMENTATIONS

The analyst collects data from two principle sources:

1. Written documents
2. Data from the persons, who are involved in the operation of the system under study.

The different fact-finding techniques are:

1. Data Carriers

2. Personal interviews

3. Observations

4. Research

Data Carriers

In this step the analyst gathers and organizes all documentation related to data carriers for the system under investigation. Examples of data carriers are forms, records, reports, manuals and procedures.

Personal Interviews

An interview is a person to person communication. The analyst is more of a receiver than a sender when conducting an interview. The interviews are helpful for the analyst to explain the actual aim of an interview. The analyst is primarily seeking information. Therefore, he must be a good listener. Interviews are critical because people are the most important ingredients of a system.
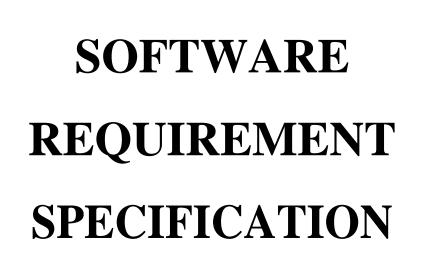
Observation

In this method the analyst observes the operation of the on-going system and begins to formulate questions and draw conclusions based on what he observed. Skilled analysts can observe things and recall it in a quick way.

Research

The final fact-finding techniques, research is of importance when a new application is being considered because it is a method of simulating creative approach to the problem solving. All the fact-finding methods that are discussed are in house research.

Techniques Used

In our project the fact-finding techniques used is data carriers and interviews to collect data for computerizing the existing system. Data carriers gather forms used for registration, forms used for job submission and sample of an id card and organize all documentations related to the system under investigation. For this software we enquired about the functioning of the hotel to a large group of people. Interview is done to collect information regarding the existing system and to clear the drawbacks**.**

SOFTWARE REQUIREMENT SPECIFICATION

3. SOFTWARE REQUIREMENT SPECIFICATION

3.1 INTRODUCTION

Requirements specification is the starting step for the development activities. It is currently one of the weak areas of software engineering. During requirement specification, the goal is to produce a document of the client's requirements. This document forms the basis of development and software validation. The basic reason for the difficulty in software requirements specification comes from the fact that there are three interested parties- the client, the end users and the software developer.

3.2 PURPOSE

The origin of most software system is in the need of a client, who either wants to automate an existing manual system or desires a new software system. The software system itself is created by the developer. Finally, the completed system will be used by the end users. Thus, there are three major parties interested in a new system: the client, the users and the developer. A basic purpose of software requirements specification is to bridge the communication gap. SRS is the medium through which the client and user needs are accurately specified; indeed, SRS forms the basis of software development. A good SRS should satisfy all the parties- something very hard to achieve- and involves trade-offs and persuasion. Another important purpose of developing an SRS is helping the clients understand their own needs. Advantages are:

- o An SRS establishes the basis for agreement between the client and the supplier on what the software product will do.

- o An SRS provides a reference for validation of the final product

- o A high-quality SRS reduces the development cost.

- o The main purpose of this system is to help automate the entire information details of rooms in a hotel reservation management system.

- o To minimize the manual workload of staff and the time to check the availability of a room by the customer and staff.

- o To provide a searchable database of all the rooms.

3.3 SCOPES

3.3.1 SYSTEM STATEMENT OF SCOPE

This system has developed to manage the work in a hotel reservation. Users enter their basic details for registering and have the provision to update their details, renew their registration, and a provision to re-register if registration elapses. This system also provides a platform for users to search for rooms and the provision to know the details of the selected room. It also provides a provision for the customers for giving feedback on the rooms and services they experienced. Admin can access this system by logging into the system using valid username and password. Thus, after registration process the customer can reserve rooms upon their needs when he/she registers to the hotel reservation management. Admin can update or delete the customer record. Only the registered users can log into this system.

3.4 TECHNICAL OVERVIEW

3.4.1 USER CHARACTERISTICS

Only admin can access Hotel Reservation Management system. So, security is not a major constraint.

3.5 STATED REQUIREMENTS

3.5.1 GENERAL REQUIREMENTS

This system has 7 modules. Out of the 7 modules, all are authorized by the admin.

1. Login Module

- The admin/customer should enter username, password and user type to login.
- Admin are allotted to login if he/she entered the valid username and password
- Unauthorized users should not be able to access the system.

2. Registration Module

Registration form should have the following fields:

- Name
- Address
- Email
- Password
- User type
- Mobile number

This module also gives the provision to update details of a customer.

3. Room Details Module

Update Module is used by the admin to add, delete or update the room and customer details in the

hotel. Update module form should have the following fields:

- Room Id
- Room type
- Price

4. Package Module

Package module takes care of available packages in the hotel.

Package module has following fields:

- Package id
- Package cost
- Package type

5. Service Module

Service module takes care of available packages in the hotel.

Service module should have the following fields:

- Service id
- Service type
- Service Price

6. Customer Module

This module deals with available registered customers in the hotel.

This module has following fields

- Name
- Address
- Email
- Password
- Usertype
- Mobile number

7. Gallery Module

This module shows up the available pictures of the hotel.

- image

Interface Enhancements

Admin have requested a lot of interface enhancements that will increase the usability of the products for the staff.

Database Administrative Interface

There is currently no documented interface for this system admin to maintain the details of candidate registered in hotel reservation management. Since, no such interface exists; the developers will have to implement one from scratch.

Training

The staff members have also requested throughout training for the entire staff for use with the software.

3.5.2 INPUTS

The Hotel reservation management System will take the information about candidate. Personal information such as address, telephone number, and other details.

3.5.3 PROCESSING

- All types of validation for the data entry are carried out
- Specific formats can the data entry fields
- Preparation of various information.

3.5.4 OUTPUTS

Hotel Management System produces the following reports

- ➢ Room details
- ➢ Customer details

3.5 EXTERNAL INTERFACE REQUIREMENTS

3.6.1 USER INTERFACE

All user interfaces will be GUI interfaces. And on special external user interface is required

Interfaces are design to use with ease and without any confusion. The user interface shall have a pleasing appearance and high functionality.

- ❖ Suitable design and pleasing color are selected to design the window page to make the users comfortable to operate the software.
- ❖ Component like textboxes, combo boxes and buttons are selected to make it easy to fill with appropriate data.

3.6.2 HARDWARE INTERFACES

The Hotel management system no external hardware is required.

HARDWARE SPECIFICATION

Server configuration

Processor	:	Intel Core i5
RAM	:	4GB or
Harder disk drive	:	500 GB
Keyboard	:	Standard 103 keys
Monitor	:	Acer's monitor
Floppy Drive	:	Nil
Printer	:	Disk Jet 640 or Above

Client configuration

Processor	:	Pentium IV
Processing speed	:	2.66GHz
Memory size	:	256MB
Cache memory	:	256KB
Storage	:	1GB

3.6.3 SOFTWARE INTERFACES

Software specification

Operating system	:	windows 10
Front End	:	PHP Laravel
Back End	:	MySQL
Data Control	:	ADOC

SYSTEM DESIGN

4. SYSTEM DESIGN

4.1 INTRODUCTION

The purpose of design phase is to plan a solution of the problem specified by the analysis phase. This phase is the first step in moving from the problem domain to solution domain.

System design describes the desired features and operation in detail, including screen layouts, business rules, process diagrams, pseudo code and other documentation.

In this phase, the software's overall structure and its nuances are defined. In terms of the client/server technology, the number of tiers needed for the package architecture, input design, output design, the database design, the data structure design etc. are all defined in this phase. Analysis and design are very crucial in the whole development cycle. Any glitch in the design phase could be very expensive to solve in the later stage of the software development. So much care is taken during this phase.

The logical system of the product and the physical characteristics of the system are designed during this phase. The operating environment is established, major resources. Everything requiring user input or approval must be documented and reviewed by the user. The physical characteristics of the system are specified, and a detailed design is prepared.

The subsystem identified during design is used to create a detailed structure of the system. Each subsystem is partitioned into one or more design units or modules. Detailed logic specifications are prepared for each software module. The logic of the module is usually specified in a high-level design description language, which is independent of the target language in which the software will eventually be implemented.

A good design must consider:

- Prompt: should be simple and clear to intuitively lead the user to an expected outcome.
- Memory load: Studies show that, under normal circumstances, users have a short-term memory of approximately six words. Ideally, the number of choices of users to select should be four or less. Otherwise, callers become confused and forget the choices presented to them.

- Service reaches ability: It is not pleasant for a person to go through many steps before he reaches a service. Users start to get impatient with more than five steps. Minimize the number of steps a caller must take to reduce frustration.

- Navigation: Provide a way to navigate back and forth between various dialogue steps. The user should be able to go to different parts of the dialog easily.

- Phonetic similarity: Provide a clear set of choices for user to select. Avoid choices with similar pronunciation.

- Error handling: Humans make mistakes. Graceful error handling decreases dependency on operators.

- User update: Let the user know what is going on and keep him engaged.

For the general design one or more potential design are propose and broadly sketched. Then these alternatives are presented to the users, who choose the design that best suits their requirements while staying within the project constraints.

Detailed design stage is specification for the user interface, database, programs, hardware, and training and system documentation. Several structured techniques are used during the design phase. To design the software components, the designer transforms the automated processes in the physical data flow diagram into a program structure chart, which decomposes software processes into detailed modules and shows control path between modules.

4.2 DESIGN METHODOLOGY

4.2.1 INPUT DESIGN

In the input design, the user-oriented inputs are converted into computer recognizable format. The collection of input data is the most expensive part of the system in terms of equipment used, time and number of users involved. Input design is the processes of converting user-oriented inputs to a computer-based format. The goal of designing input data is to make data entry as easy, logical and free from errors as possible.

Input design is the link between the information system and the users and the skip necessary to put transaction data into a usable form for processing. Instructing the computer to read data from a written printed document can activate the activity of putting data into the

computer for processing or it can occur by keying data directly into the system. The design of input focusing on controlling the amount of input required, controlling the errors, avoid delay extra steps, and keeping the process simple. System analysis decides the following input design details:

- What data to input
- What medium is to use
- How the data is arranged and coded
- Data items and transaction needing validation to detect error occurs.

Activities performed as part of input design are:

- Data recording
- Data verification
- Data conversion
- Data validation
- Data correction

4.2.2 OUTPUT DESIGN

Output design is a process that involves designing necessary outputs that must be used by various users according to requirements. Designing computer should proceed in well thought out manner. The term output means any information produced by the information system whether printed or displayed. When analyst design computer output, they identified the specific output that is needed to meet the requirement.

Computer is the most important source of information to the users. Efficient intelligent output design should improve the system relationship with the user and help in decision making. When designing the output, system analyst must accomplish the following:

- Determine the information to present
- Decide whether to display, print, speak the information and select the output medium
- Arrange the information acceptable format

The output design is the key to the success of any system. Output is the key between the user and the sensor. The output must be concerned to the system's working, as it should. Output

design consists of displaying specification and procedures as data presentation. User is never left with the confusion as to what is happening without appropriate error and acknowledges message being received.

4.2.3 CODE DESIGN

The coding step is a process that transforms design into programming language. It translates a detail design representation of software into a programming language realization. The code design should be done in such a way that the lines of code used in the software should be minimum for the specified design of the solution. The coding should be inmodularized manner.

When code is placed in a module, one may hide it from view and give those executable statements a name (the name of the function or procedure). Information hiding is a good thing when it enhances the understanding of a program by letting to focus on a higher level of abstraction. Information hiding is a bad thing when it obscures one's understanding of a program. This usually happens when the name for the module is not chosen accurately.

In this software, the modularized approach is used. Different functions are created for different operations. The name of the module is chosen such a way that it describes what it does, i.e. the name gives the action performed by the module

4.2.4 DATABASE DESIGN

The details about the relevant data that came into play in the system are identified according to the relationship the tables are designed by following the standard database design methods. The dative for each data in the table is defined. For optimum design of database to have better response time, to have data integrity, to avoid the redundancy and for security of the database tables created and analyzed.

A database system can be defined as a representation of an information system in a computer. The general theme behind a database is to handle information as an integrated whole. A database is a collection of interrelated data stored with minimum redundancy to serve many users quickly and efficiently. The general objective is to make information access easy, quick, inexpensive and flexible for the user. In database design, several specific objectives are considered:

- Controlled redundancy
- Ease of learning and use
- Data independence
- More information at low cost
- Accuracy and integrity
- Recovery from failure
- Privacy and security
- Performance

The scheme is the view that helps us the DBMS decide what data in storage it should act upon as requested by the application program. The subschema is concerned with a relatively small part of scheme. In database design, several views of data must be considered along with the persons who use them. The logical view is what the data look like, regardless of how they stored. The physical view is the way data exists in physical storage. It deals with how data are stored, accessed or related to other data in storage. The logical view is the users view the programmer's view and the overall logical view, called a schema.

This project has used a main database having different tables, based on which the operations can perform well.

4.3 MAJOR DESIGN CONSTRAINTS
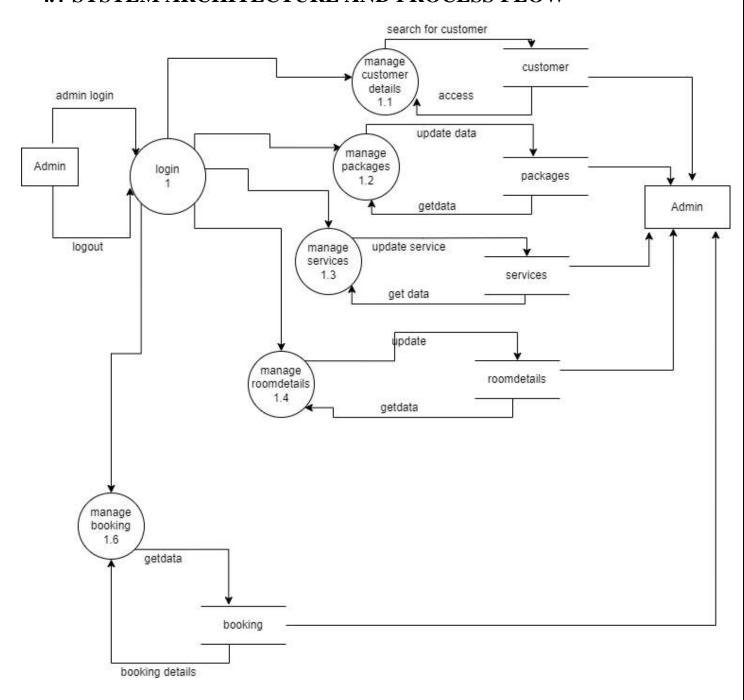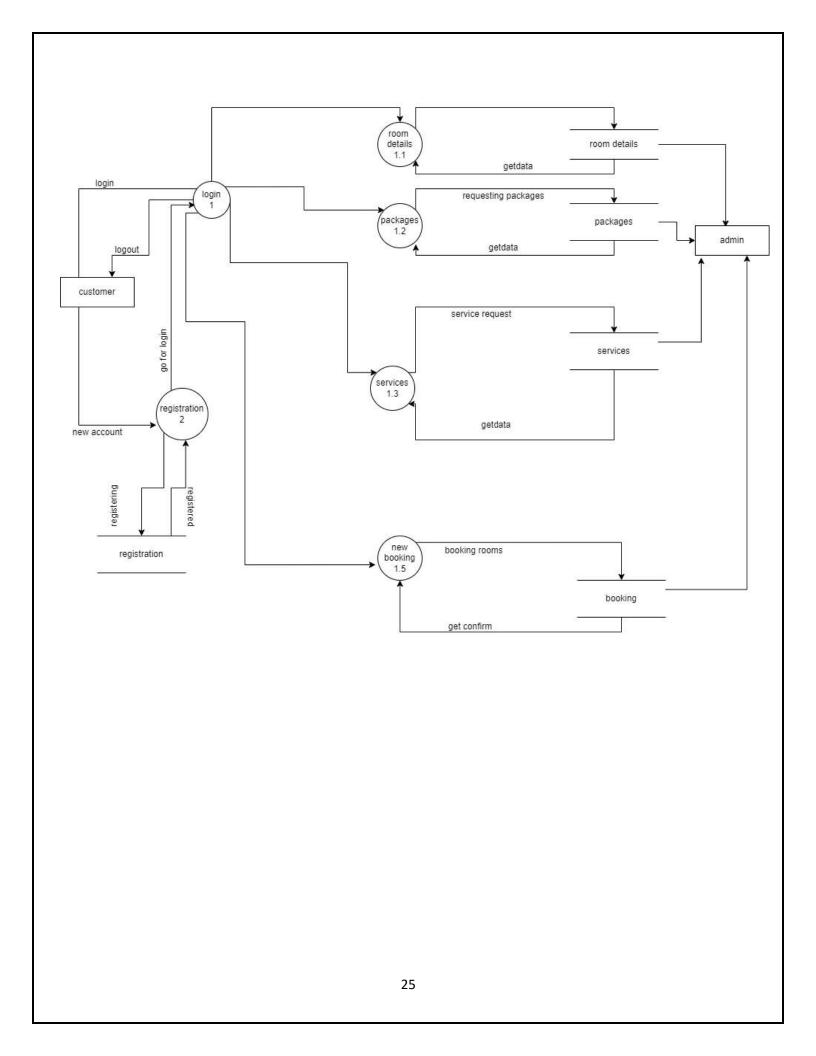
4.3.1 GENERAL CONSTRAINTS

Time

Time is so far the biggest restriction or constraint for our project as we only have around one month to finish entire project. It is very important for us to watch the time we spend over every phase of the software development project.

Employee Skills

Employees programming and design skills is also one of the restrictions. It does not have as big of an impact on the project.

4.4 SYSTEM ARCHITECTURE AND PROCESS FLOW

4.5 MODULE DETAILS

In this software, we have mainly7 modules. They are:

- **LOGIN MODULE**

  The admin should enter username, password and user type to login. They allotted to login if he/she entered the valid username, password and user type. Unauthorized users should not be able to access the system.

- **REGISTRATION MODULE**

  This module deals with the allocation of valid login for all the new registered people. Also, all the details of the people like name, address, email, phone no are collected. After registration if they get a message like registered successfully then they can login.

- **PACKAGE MODULE**

  This module deals with available packages in the hotel. It contains the details about the packages like package id, package price, package type. Admin can edit all this if needed. Also, customer can select the packages that they needed.

- **SERVICE MODULE**

  This module deals with available services in the hotel. It contains the details about the packages like service id, service price, service type. Admin can edit all this if needed. Also, customer can select the services that they needed.

- **CONTACT US**

  It contains the email id; phone no and the customer can send the messages to the admin and admin can view the messages send by the customers.

- **ROOM DETAILS MODULE**

  This module deals with available rooms in the hotel. It contains the details about the rooms like room id, room price, room type. Admin can edit all this if needed. Also, customer can select the rooms that they needed.

- **GALLERY MODULE**

  This module deals with available pictures of the hotel. It contains the images of rooms packages and services in the hotel.

- **CUSTOMER MODULE**

  This module deals with available registered customer in the hotel. It contains the details about the customer like customer name, password, email, phone no, user type. Only admin can view these details.

4.6 PERFORMANCE ISSUES

This system should have at least 256 MB of RAM. The OS must be Windows XP or higher.

4.7 SECURITY ISSUES

This software does not allow entering an unauthorized user. We use login name and password. The user can enter only if the username and password is matching otherwise the user cannot use the software.

4.8 HOTEL TABLE

1.Table Name: registration: used for customer registration

 Primary key: userid

SI NO	FIELD NAME	DATA TYPE	DESCRIPTION
1	userid	varchar	It contains the user id
2	name	varchar	It contains the name of customer
3	password	varchar	It contains the password
4	email	varchar	Email of customer
5	phone_number	varchar	Phone no of customer
6	address	varchar	Address of customer
7	usertype	varchar	Contains of usertype

1. Table Name: room details: used for storing room details

 Primary key: roomid

SI NO	Field Name	Data Type	Description
1	roomid	varchar	Contains room id
2	roomtype	Varchar	Contains room type
3	roomprice	Varchar	Contains room cost
4	room_status	varchar	Show that room is empty or not

2. Table Name: package : used for storing available package details

Primary key: packgeid

SI NO	Field Name	Data Type	Description
1	pckgeid	varchar	Contains package id
2	pckgename	Varchar	Contains package name
3	pckgecost	Varchar	Contains package cost

4. Table Name: service: used to store the service details

Primary key: servsid

SI NO	Field Name	Data Type	Description
1	servsid	Varchar	Contain service id
2	servsname	Varchar	Contain service type
3	servscost	Varchar	Contain service cost

5.Table Name: customer: used for store customer details

Primary key: email

SI NO	FIELD NAME	DATA TYPE	DESCRIPTION
1	username	varchar	It contains the user name
2	password	varchar	It contains the password
3	email	varchar	Email of customer
4	Phone no	varchar	Phone no of customer
5	Address	varchar	Address of customer
6	usertype	varchar	Contains of usertype

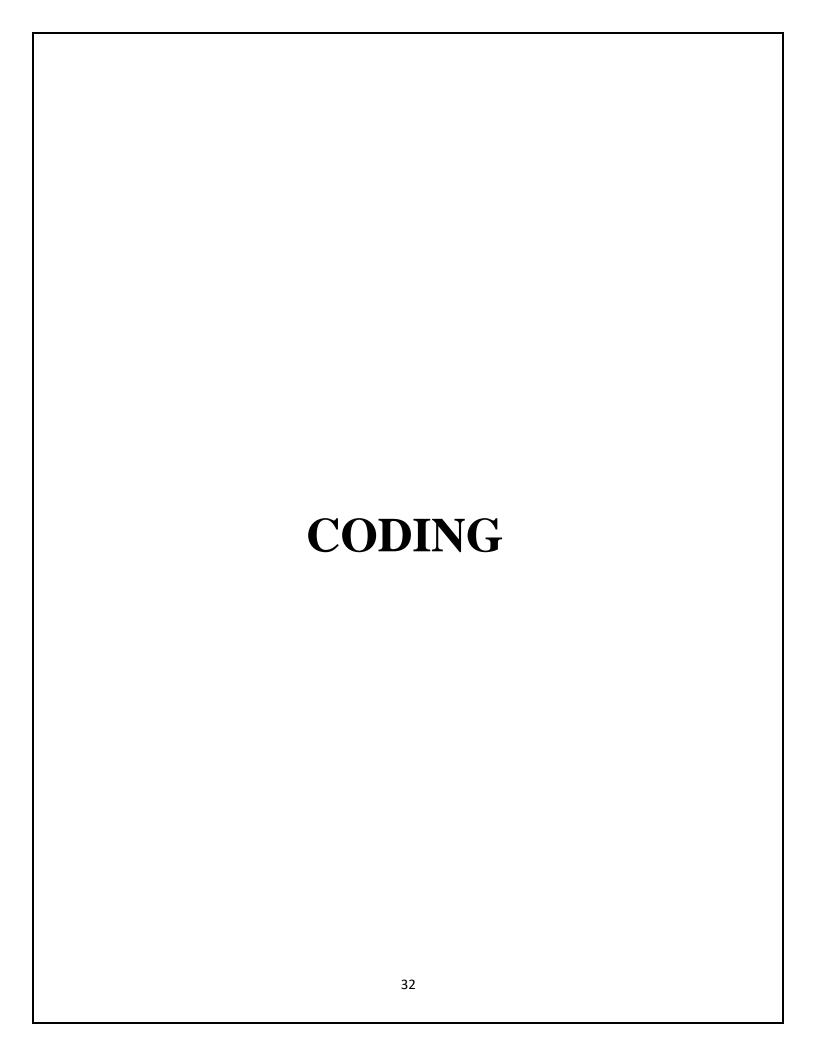**6.Table Name: login:** used for store login details

Primary key: password

SI NO	FIELD NAME	DATA TYPE	DESCRIPTION
1	username	varchar	It contains the user name
2	password	varchar	It contains the password
3	usertype	varchar	Contains of usertype

7.Table Name: booking: used for store booking details

Primary key: bookingid

SI NO	FIELD NAME	DATA TYPE	DESCRIPTION
1	bookinid	varchar	It contains the booking id
2	name	varchar	It contains the name
3	phoneno	varchar	Phone no
4	service	varchar	Services
5	package	varchar	Package
6	checkin	varchar	Check in date
7	checkout	varchar	Check out date

CODING

5 CODING

5.1 INTRODUCTION

Implementation is the stage of the project when the theoretical design is turned into a working system. The implementation stage is a system project. It includes careful planning, investigation of current system and its constraints on implementation, design of methods to achieve the changeover, training of the staff in the changeover procedure and evaluation of the changeover method.

5.2 SELECTION OF SOFTWARE

PHP Laravel Framework

Laravel is a web application framework with expressive, elegant syntax. Laravel is an open source PHP Framework. It also affects the rich set of functionalities that incorporate the basic features of PHP Frameworks. Laravel is a robust framework that provides easy development of PHP web Application with features like a modular packaging system with a dedicated dependency manager, Access to relational databases , and other utilities for application deployment and maintenance.

MySQL

• MySQL is a database system used on the web

• MySQL is a database system that runs on the server

• MySQL is very fast, reliable, and easy to use

• MySQL is free to download and use

• MySQL is ideal for both small and large applications

• MySQL uses standard SQL

• MySQL compiles on a number of platforms

JavaScript

JavaScript is the world's most popular programming language. It is easy to learn and it is the programming language for the web. JavaScript can update both HTML and CSS. It can be used to calculate, manipulate and validate data. JavaScript is high-level, often just-in-time compiled, and multi-paradigm. It has curly-bracket syntax, dynamic typing, prototype-based object-orientation, and first-class functions.

CSS

CSS stands for Cascading Style Sheet. CSS is a style sheet language used for r describing the presentation of a document written in a markup language such as HTML.CSS is designed to enable the separation of presentation and content, including layout, colors, and fonts. The name cascading comes from the specified priority scheme to determine which style rule applies if more than one rule matches a particular element. This cascading priority scheme is predictable.

5.2 CODING PHASE

The goal of the coding or programming phase is translate the design of the system produced during the design phase into code in a given programming language, which can be executed by a computer and that performs the computation specified by the design.

The coding phase affects both testing and maintenance profoundly. The coding phase does not affect the structure of the system; it has great impact on the internal structure of modules, which affects the testability and understands ability of the system.

The goal of the coding phase is to produce clear simple programs. The aim is not to reduce the coding effect, but to program in a manner so that testing and maintenance costs are reduced. Programs should not be constructed so that they are easy to write; they should be easy to read and understand. Reading programs is a much more common activity than writing programs. Hence, the goal of the coding phase is to produce simple programs that are clear to understand and modify.
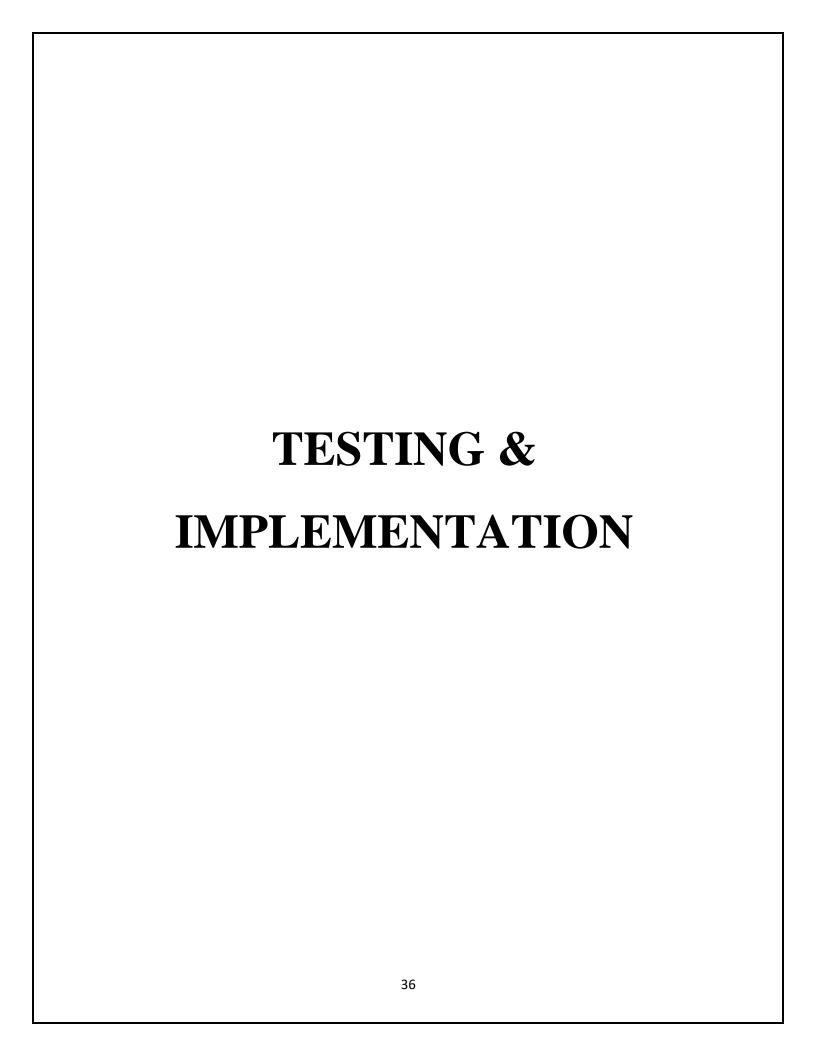
5.2.1 Coding Standards

The standard used in the development of the system is Microsoft Programming standards. It includes naming conversations of variables, constants and objects, standardized formats for labelling and commenting code, spacing, formatting and indenting.

Naming Conventions

The controls are prefixed to indicate their functions. The frames are prefixed with form, textboxes are prefixed with txt, labels with lbl, combo boxes with cmb, and so on.

Labels and comments

The functions of each control are labelled clearly in the GUI. The code also includes comments so that other developers using the source code in future might understand the module functions better.

TESTING & IMPLEMENTATION

6 TESTING

6.1 INTRODUCTION

Software testing is a critical element of software quality assurance and represents the ultimate review of specifications design and coding. Testing presents an interesting anomaly for the software. Testing is a quality measure process, which reveals the errors in the program. During testing, the program is executed with a set of test cases and the output of the program for the test cases is evaluated to determine if the program is performing as it is expected. Testing plays a very critical role in determining the reliability and efficiency of the software and it is a very important stage in software development.

6.2 TESTING

System testing is a series of different tests whose primary purpose is to fully exercise the computer-based systems. Although each test has a different purpose, all work to verify that all system elements have been properly integrated and perform allocated functions.

System testing is done in order to ensure that the system developed doesn't fail at any point. Before implementations, the system is tested with experimental data to ensure that it will meets the specified requirements, special tests data are input for processing and results examined.

6.2.1 TEST PLAN

- **Preparation of Test Data**

    Taking various kinds of test data does the testing. Preparation of test data plays a vital role in the system testing. After preparing, the test data the system under study is tested using that test data. While testing the system by using test data errors are again uncovered and corrected by using above testing steps and correction are also noted for future use. For example, in testing of data, name can have only characters and it is a positive case of name while having characters and digits are a negative case of name.

- **Using live test data**

    Live tests are those that are extracted from organization files. After a system is partially constructed, programmers or analyst often ask users to key in a set of data from their

normal activities. Then, the system person uses this data to partially test the system. In order instance, programmers or analysts extract a set of live data from the files and have entered themselves. This software uses some set of data to test the functioning of the system. For example, for checking validation both positive and negative cases of a control are given.

- **Using artificial test data**

   Artificial test data are created solely for test purpose, since they can be generated to test all combinations of formats and values. In other words, the artificial data, which can quickly be prepared by a data generating utility program in the information system department, make possible the testing of all login and control paths through the program.

   The most effective test program uses artificial test data generated by person other than those who wrote the program. Often, an independent team of testers formulates a testing plan, using the system specification

6.3 TESTING METHODS

Testing is generally done at two levels-testing of individual modules and testing of the entire system. During system testing, the system is used experimentally to ensure that the software does not fail that is, that it will run according to its specifications and the results examined. A limited number of uses may be allowed to use the system so analysis can see whether they use it in unforeseen ways. It is preferable to discover any surprise before the organization implements the system and depends on it.

Testing is done throughout system development at various stages. It is always a good practice to test the system at many different levels at various intervals, that is, sub systems, program modules as work progresses and finally the system. During testing the major activities are concentrated on the examination ad modification of the source code. Usually, this testing is to be performed by the person other than the person who has really coded it. This is done in order to ensure more complete and unbiased testing for making the software more reliable

There are two types of testing:

- Black box testing
- White box testing

6.3.1 WHITE BOX TESTING

In white box testing, the internal logic of the modules is considered. Following levels of testing are performed for the developed project:

6.3.1.1 Unit Testing

This involves the tests carried out on modules programs, which make up a system. This is also called as a program testing. The units in a large system many modules at different levels are needed. Unit testing focuses on the modules, independently of one another, to locate errors. The program should be tested for correctness of logic applied and should detect errors in coding. Before proceeding one must make sure that all the programs are working independently. This software has 5 modules and each module was tested separately after the development.

6.3.2 Black Box Testing

The concept of the black box is used to represent a system whose inside workings are not available for inspection. In a black box, the test item is treated as "black", since its logic is unknown; all that is known is what goes in and what comes out, or the input and output.

6.3.2.1 System Testing

The system testing is conducted on a complete, integrated system to evaluate the system's compliance with its specified requirement. It falls within scope of black box testing, so no knowledge of inner design or logic is needed. As a rule, system testing takes, as its input, all the integrated software components that have passed integration testing and the software system itself integrated with any applicable hardware system. The purpose of the integration testing is to detect any inconsistencies between software units.

System testing is the stage of implementation, which is aimed at ensuring that the system works accurately and efficiently before live operation commence. The logical design and the physical design should be thoroughly and continually examined on paper ensure that they will work when implemented. In system testing the pharmacy management system was tested end to end by considering both positive and negative cases based on the requirements mentioned in SRS.

6.3.2.2 Integration Testing

Integration testing is a systematic technique for constructing the program structure, while at the same time conducting tests to uncover errors associated with interfacing. This is the program is constructed and tested in small segments, which makes it easier to isolate and the following common types of integration problems may be observed:

- Version mistakes
- Data integrity violations
- Overlapping function
- Resource problems especially in memory handling
- Wrong type of parameter in function calls

6.3.2.3 Validation Testing

At the culmination of the integration testing, the software was completely assembled as a package, interfacing errors have been uncovered and corrected and a final series of software validation testing began.

In validation testing we test the system functions in a manner that can be reasonably expected by customer, the system was tested against system requirement specification. Different unusual inputs that the users may use were assumed and the outputs were verified for such unprecedented inputs. Deviation or errors discovered at this step are corrected prior to the completion of this project with the help of user by negotiating to establish a method for resolving deficiencies. Thus, the proposed system under consideration has been tested by using validation testing and found to be working satisfactorily. Validation checking is performed on the

Numeric Field: - The numeric field can contain only numbers from 0 to 9. An entry of any character flashes an error message. The individual modules are checked for accuracy and what it must perform. Each module is subjected to test run along with sample data. The individually tested modules are integrated into a single system.

6.3.3 OUTPUT TESTING

After performing validation test, the next phase is output test of the system, since no system could be useful if it does not produce the desired output in the desired format. By consideration the format of the report/output was generated or displayed and was tested. Here output format was considered in two ways: one is on the screen and other as a printed form.
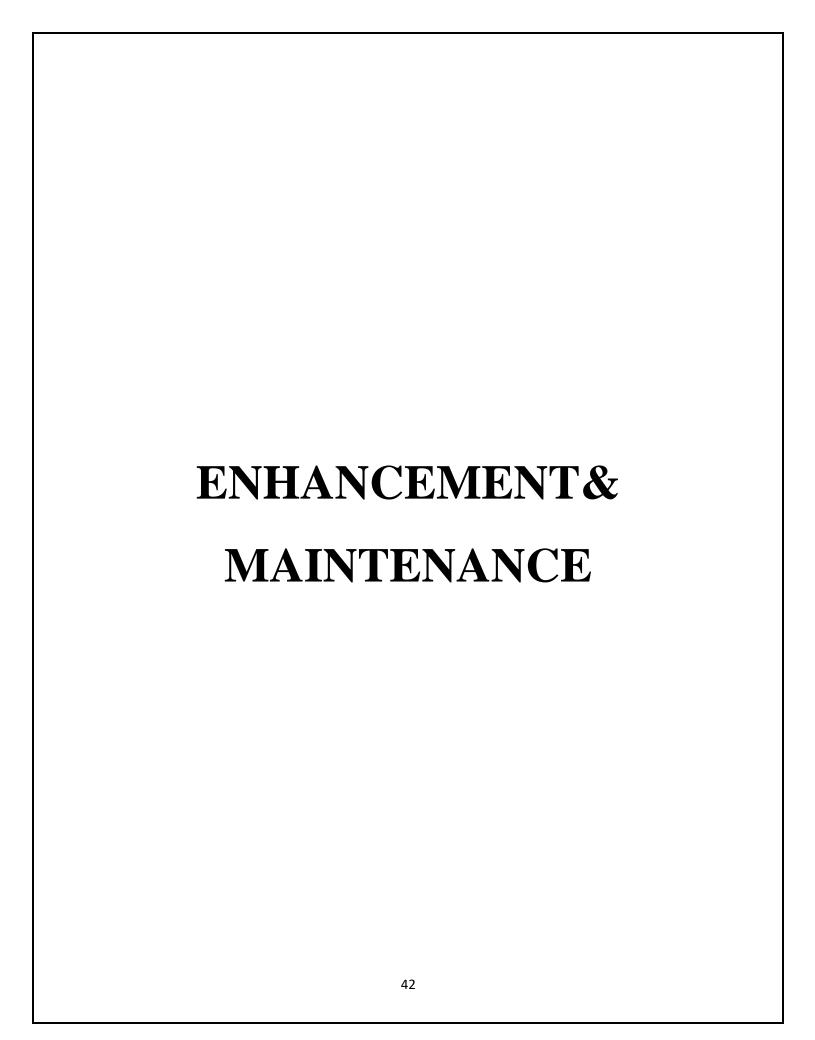
6.3.4 USER ACCEPTANCE TESTING

User acceptance test of a system is the key factor for the success of the system. The system under consideration was listed for user acceptance by keeping constant touch with the perspective user of the system at the time of design, development and making changes whenever required. This was done with the regards of the following points: -

- Input screen design
- Output design

6.4 IMPLEMENTATION

Implementation is the stage of the project when the theoretical design is turned into a working system. The implementation stage is a system project. It includes careful planning, investigation of current system and its constraints on implementation, design of methods to achieve the changeover, training of the staff in the changeover procedure and evaluation of the changeover method.

The first task in implementation is planning to decide on the methods and time scale to be adopted. Once the planning has been completed the major effort is to ensure that the programs in the system are working properly when the staffs have been trained. The complete system involving both computer and user can be executed effectively. Thus, the clear plans are prepared for the activities. Successful implementation of the new system design is a critical phase in the system life cycle. Implementation means the process of converting a new or a revised system design into an operational one.

ENHANCEMENT& MAINTENANCE

7 MAINTENANCE AND ENHANCEMENT

7.1 MAINTENANCE

This software can be modified as need occurs. Maintenance includes all the activities after installation of the software that is performed to keep the system operational. The process of maintenance involves:
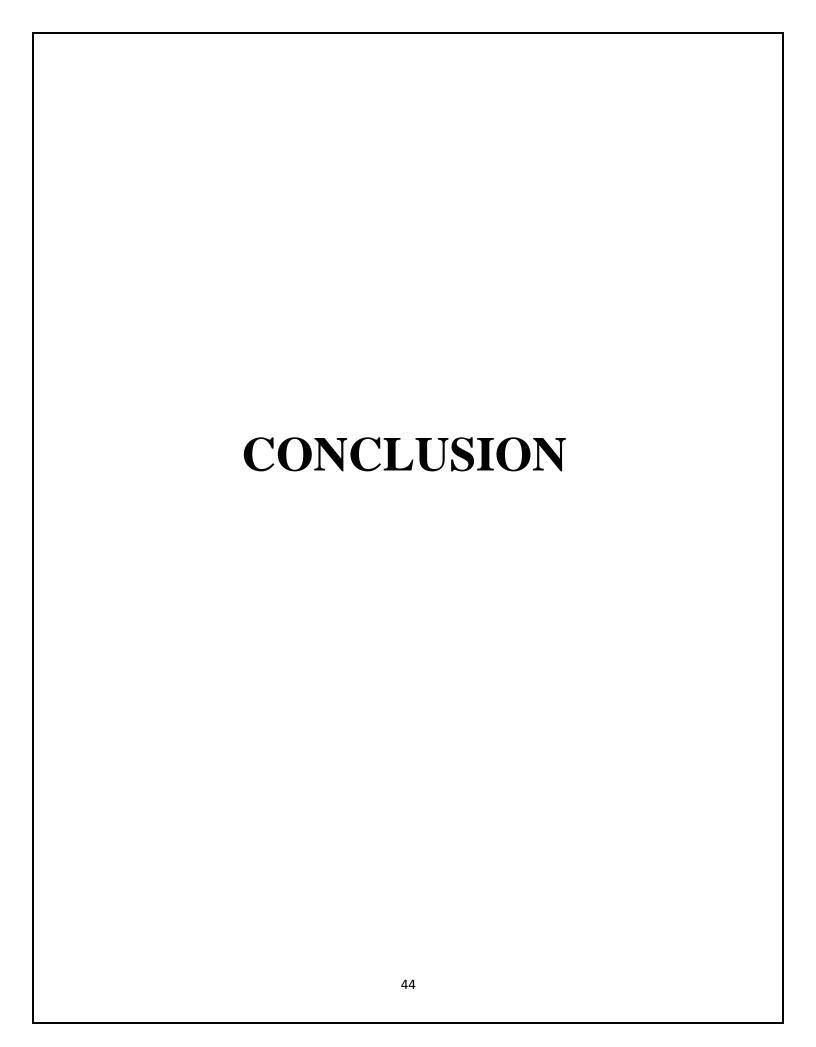
1. Understanding the existing software
2. Understand the effect of change
3. Test for satisfaction

Maintenance can be done to this project by simply adding the new requirements that are the form of database the system can be modified. The maintenance process also helps to remove an error that resides in the system even after testing process.

7.2 ENHANCEMENTS

The software developed is very flexible and much functionality can be added to it, to enhance its performance. These options can be included to improve the efficiency of the software. As this software can be expanded to any area in the world more facilities can be added to the software according to the requirements. This system can be expended to worldwide such that they reserve rooms and can use this software online. This system is highly secured system. This software could be developed as an Android Application where any hotels could register in this application and helps people to find nearby hotels where the required number of rooms are available. This application could be extended to a common platform where every hotel can use it.

- Online version of hotel management system can be developed
- Barcode reader-based registration of employees can be developed.
- Customers can reserve rooms and other services upon their needs.
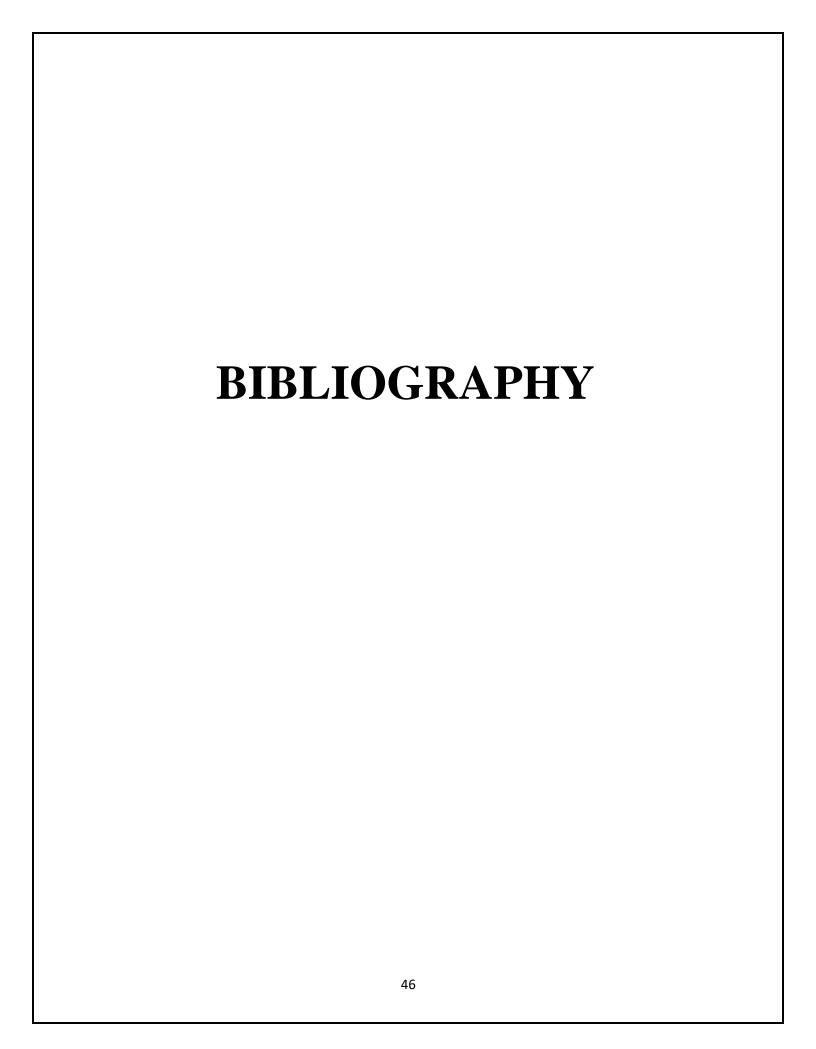
CONCLUSION

CONCLUSION

"ONLINE HOTEL BOOKING SYSTEM" is software developed for the simplification of all the manual works done by the employees in a hotel and for the customers who wish to reserve rooms. This is a service offered by the private companies. It is difficult to keep the records of all customers in a hotel and keep track of all the details of customers in the hotel.

This software has reduced the difficulty in keeping the records and simplified the works.

Customers are able to register and create their own Account .They could create their own usernames and passwords .By login to their account, Customers are able to search rooms and reserve it and admin is able to update the room details in the hotel.

Using this software, Customers could check the availability of rooms and packages, without manual involvement by the staffs in the hotel.

This project contains 7 modules for developing the software. They are login module, registration module, roomdetails module, package module, service module,customer module and gallery module .
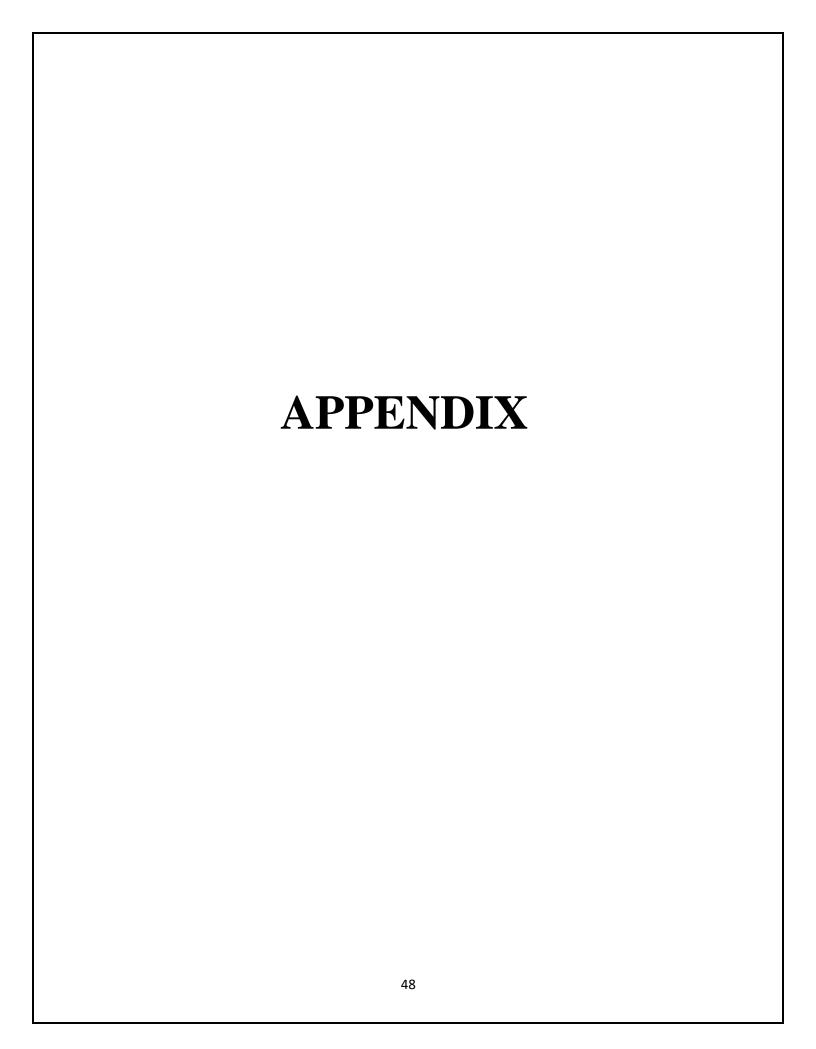
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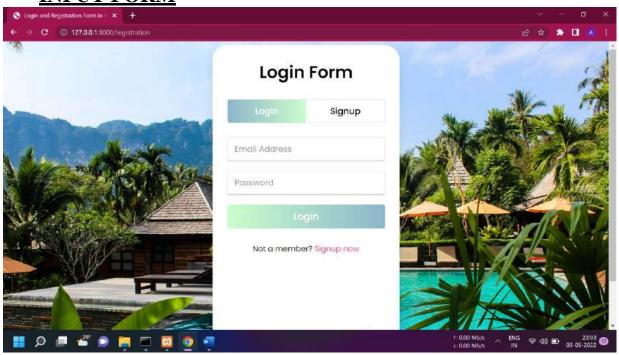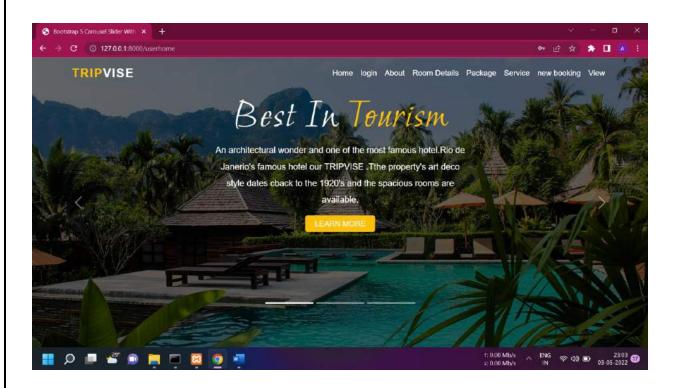
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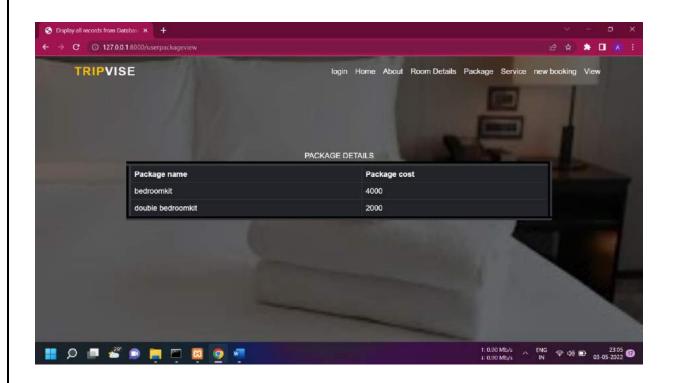
https://www.mysql.com/

https://www.w3schools.com/html/

APPENDIX

SCREEN SHOTS

INPUT FORM

ROOM DETAILS

Room type	Room price	Capacity
NON AC	1200	2
AC	3500	4
non ac	1000	1

PACKAGE DETAILS

Package name	Package cost
bedroomkit	4000
double bedroomkit	2000

ADMIN LOGIN

PACKAGE DETAILS

PACKAGE NAME	PACKAGE COST	DELETE	ADD	EDIT
bedroomkit	4000	DELETE	ADD	EDIT
double bedroomkit	2000	DELETE	ADD	EDIT

SERVICE DETAILS

SERVICE NAME	SERVICE COST	DELETE	ADD	EDIT
food	100	DELETE	ADD	EDIT
laundry	400	DELETE	ADD	EDIT