TRAVEL MATES

BY

Farjana Afnan
ID: 162-15-8228

This Report Presented in Partial Fulfillment of the Requirements for the Degree of Bachelor of Science in Computer Science and Engineering

Supervised By

Shah Md Tanvir Siddiquee
Assistant Professor
Department of CSE
Daffodil International University

Co-Supervised By

Asst. Prof. Narayan Ranjan Chakraborty
Assistant Professor
Department of CSE
Daffodil International University

DAFFODIL INTERNATIONAL UNIVERSITY

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APPROVAL

This Project titled **"Travel Mates"**, submitted by Farjana Afnan, ID No: 162-15-8228 to the Department of Computer Science and Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 7th October 2020.

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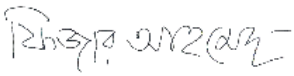

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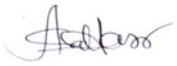

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Department of Computer Science and Engineering
Faculty of Science & Information Technology
Daffodil International University

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Professor
Department of Computer Science and Engineering
Jahangirnagar University

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I hereby declare that, this project has been done by me under the supervision of **Shah Md Tanvir Siddiquee, Assistant Professor, Department of CSE** Daffodil International University. I also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

Supervised by:

_____

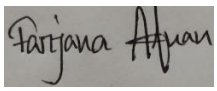
Shah Md Tanvir Siddiquee
Assistant Professor
Department of Computer Science and Engineering
Daffodil International University

Co-Supervised by:

_____

Asst. Prof. Narayan Ranjan Chakraborty
Assistant Professor
Department of Computer Science and Engineering
Daffodil International University

Submitted by:



_____

Farjana Afnan
ID: -162-15-8228
Department of Computer Science and Engineering
Daffodil International University

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Finally, I must acknowledge with due respect the constant support and patients of my parents.

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ABSTRACT

Many material things have become simpler and more convenient with the coming of the internet. People can now relax their homes and do different types of activities across the internet. From online shopping to payments, from booking tickets to hotel reservations everything can be done digitally through the internet today.

Travel Mates is a web based project which provides online hotel booking service for customers. Customer can easily visit the website and book their preferable hotel room through this website. It will allow customer a hassle free booking. Also, to make data more protected for customers. It would also assist workers to keep track of the client's as well as quickly replying to feedback to the client’s online booking order.

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CHAPTER 1

Introduction

1.1 Introduction:

By now, there are almost 4.57 billion people are active in internet. Connecting billions of people globally, the internet is a core pier of the modern information civilization. This is the reason many people utilize internet to accomplish their business. As every other sector, the hotel industry opens up socio-economic opportunities for both owners and customers. They communicate with their customer via hotel booking website.

Most consumers try to book a space to spend their vacation, like common procedure is to check for a hotel when they arrive. Walk in at a specific place to find out whether there's a empty space there. If there are no vacancies space, to ask, they have to reach the nearest hotel one more time. This whole process is very time consuming. But by using online hotel booking website it gets easier for customer to book a hotel room before they arrive that place. Also this process is very much hassle free.

The number of visitors to hotel booking websites has also risen, in line with the rise of online shopping. Although just under half of all hotel bookings were made online in 2018, Mays noted that 80% of hotel bookings are now being made online by travelers.

1.2 Motivation

Everyone needs an easy solution to everything nowadays. For this reason our main focus is to solve people's problem to make their life easier. Purpose of making this online hotel booking website project is to design a system that can coordinate and handle the activities that are involved in a hotel booking reservation. This whole booking system is cost-effective and efficient manner. It will help the administration to do their job very easily without causing any issues and will encourage guests or customers to book their room according to their requirements before they come to the hotel.

1.3 Objectives:

- Through their cell phones or computers, customer can conveniently go online to browse hotels within their preferable area.
- Visitors can book rooms within their budgets after seeing their room through this website.
- Through this website visitors can also view the availability of hotel rooms.

1.4 Expected Outcomes:

We previously said that our main goal is to make hotel booking process system fast and easy. This project will help both customer and owners to achieve a hassle-free booking system. Some expected outcomes of our project are below-

- Save people time.
- People can book hotel room without visiting that place.
- Hassle free booking process.
- The website will help the customer to choose their suitable room easily.

1.5 Report layout

Chapter 1: Introduction

In this chapter, we have discussed about the motivation, objectives and the expected outcome of the project. Later followed by the report layout.

Chapter 2: Background

We discuss about the background circumstances of our project. We also talk about the related work, comparison to other candidate systems, the scope of the problem and challenges of the project.

Chapter 3: Requirement Specification

This chapter is all about the requirements like business process modeling, requirement collection and analysis, the use case model of the project and their description, the logical relational database model, and the design requirements.

Chapter 4: Design Specification

In this chapter all the designs of the project. Front-end design, back-end design, interaction design and UX and the implementation requirements.

Chapter 5: Implementation and Testing

This chapter contains the implementation of the database, front-end designs, interactions and the test results of the project.

Chapter 6: Conclusion and Future Scope

We discussed about the conclusion and the scope for further developments which pretty much derive from the project.

CHAPTER 2

Background

2.1 Introduction

In this chapter, we are going to discuss the technologies we used in this project. This chapter will thoroughly describe the works related to this project and comparative studies including database, programming language, management, and platform.

2.2 Related Works

In this digital generation, there is a lot of websites for online hotel booking. For this reason, we built a web-based site for easy booking. This a hotel online booking system for those who wants to book their hotel room via website. It is benefited for both travelers and hotels. By the system, admin can control his dashboard properly and any customer can easily done their booking from that site.

2.2.1 Hotel Vara

Hotel vara is an online hotel booking website. They provide all the hotel information which is situated in Bangladesh. Also they provide online hotel booking option for customer. They can visit their website and select their preferable check in and check out time. After selecting that they can book their suitable room through this website. They can find lower price hotels anywhere in this website.

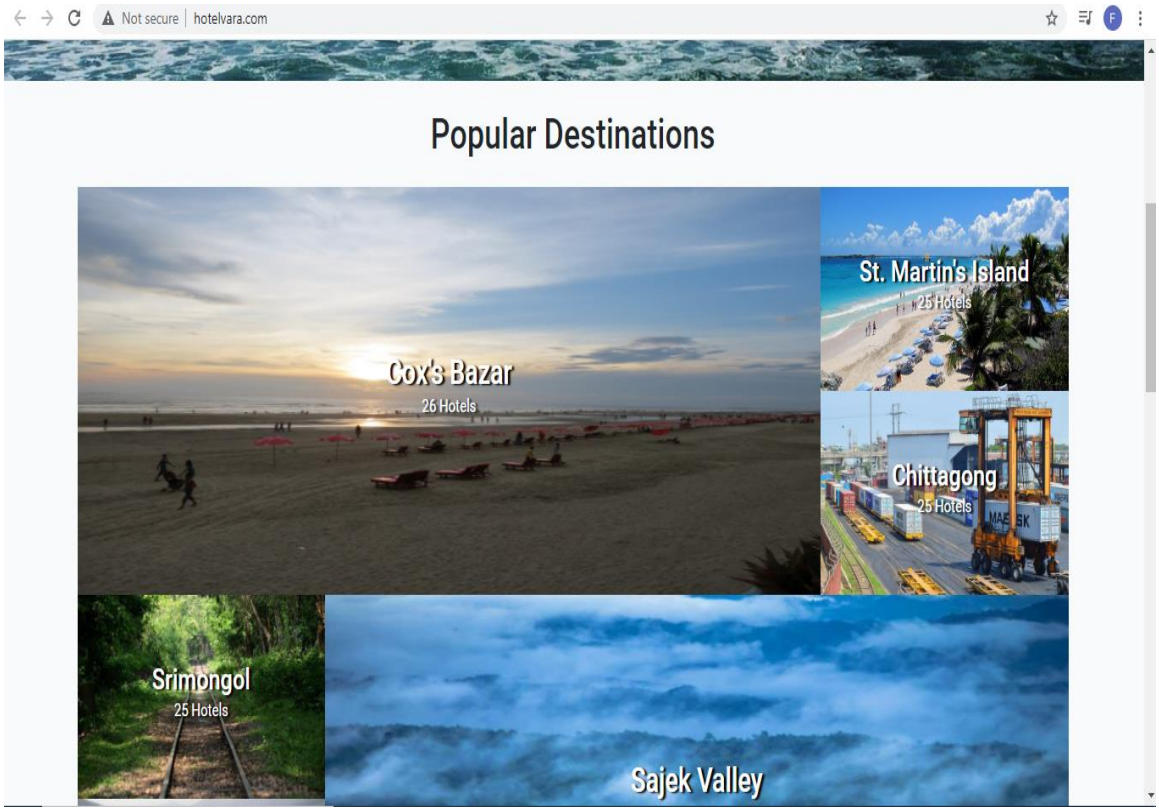

Figure 2.1.1.1: Hotel Vara

2.3 Scope of the problem

- Anyone will able to find their preferable hotel room in the website.
- Customer will able to get the actual overview of room.
- Admin will properly meet the needs which actually demanded by the customer.

2.4 Challenges

- In making dynamic html contents.
- In making responsive for various devices
- In fetching data from database by php function.
- Handling sessions of admin user.

CHAPTER 3

Requirement Specification

3.1 Introduction

This chapter will describe how the application is represented, how it will work, who can access it, who can use it. It will show us what type of information is needed to build this application and the way it works; it will also give us a basic knowledge of admin panel and what type of information a user will provide to create account and how they can access it.

3.1 Business Process Modeling

Business process modeling is the method of representing processes of an organization, such that the current process can be observed, developed, and optimized. It is a technique which is used in quality control. In a simple and formalized way, it describes an organization's existing processes. This is useful because it explains ways you can use it to improve. The important aspect of the technique is based on the diagram as 'Flow Diagram. We are trying to explain that business model of the project here using the Data Flow Diagram. Normally, Data Flow Diagram explains how data is represented though a system or project.

3.2 Requirement Analysis

- The platform helps customers booking.
- It contains hotel details when a customer searches for hotels, as well as choosing the check in and check out date.
- The program must send booking confirmation notification after successfully booking.

- The system must provide 24 * 7 hours of online booking service for customers. Nearly all browsers can support the system.

3.3 Use Case Diagram

The simplest way of represent the relation between user and system is use case diagram. It shows the interaction between different user and various use case to which user are connected. In this use case diagram, it represents users of our application.

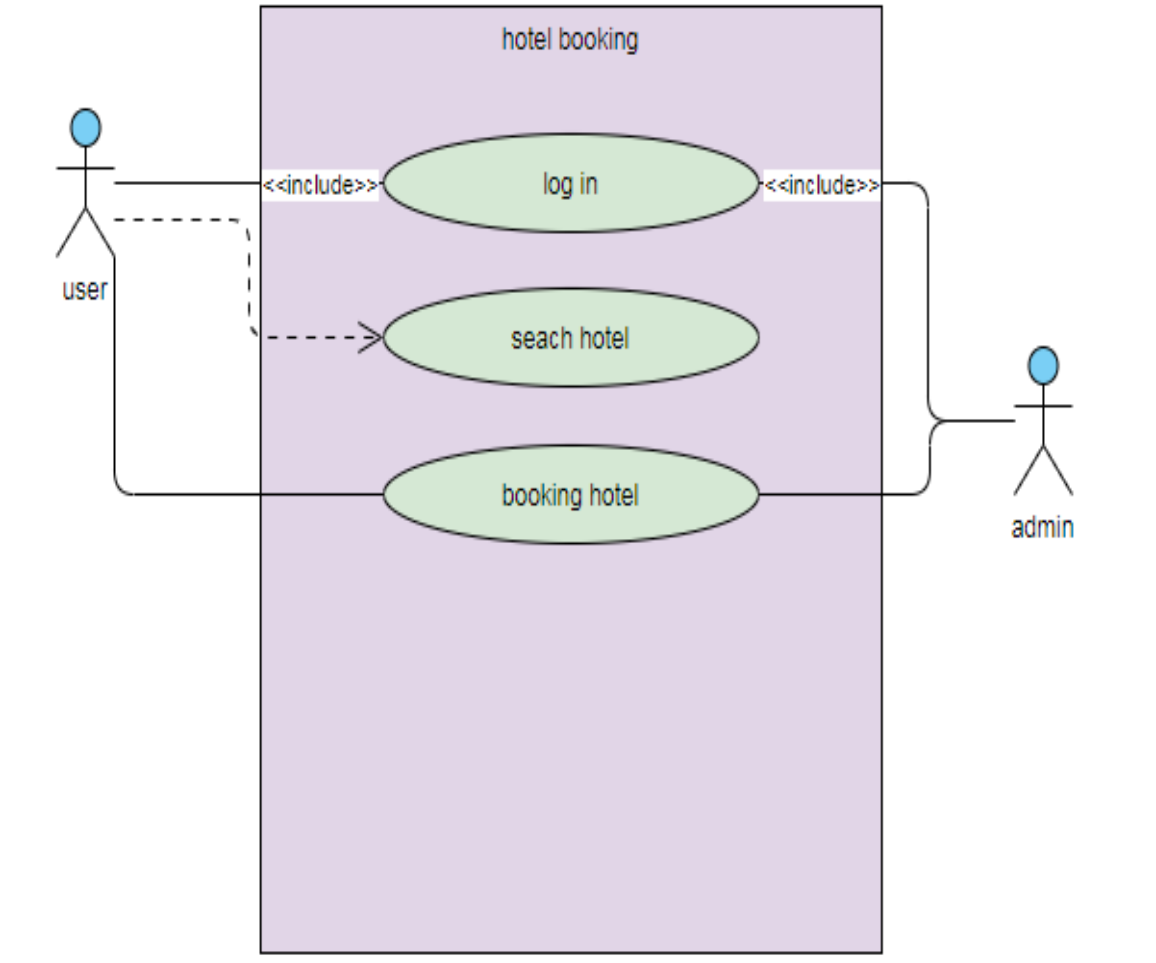

Figure 3.1- Use Case Diagram

3.4 Logical Data Model

3.4.1 Data Flow Diagram

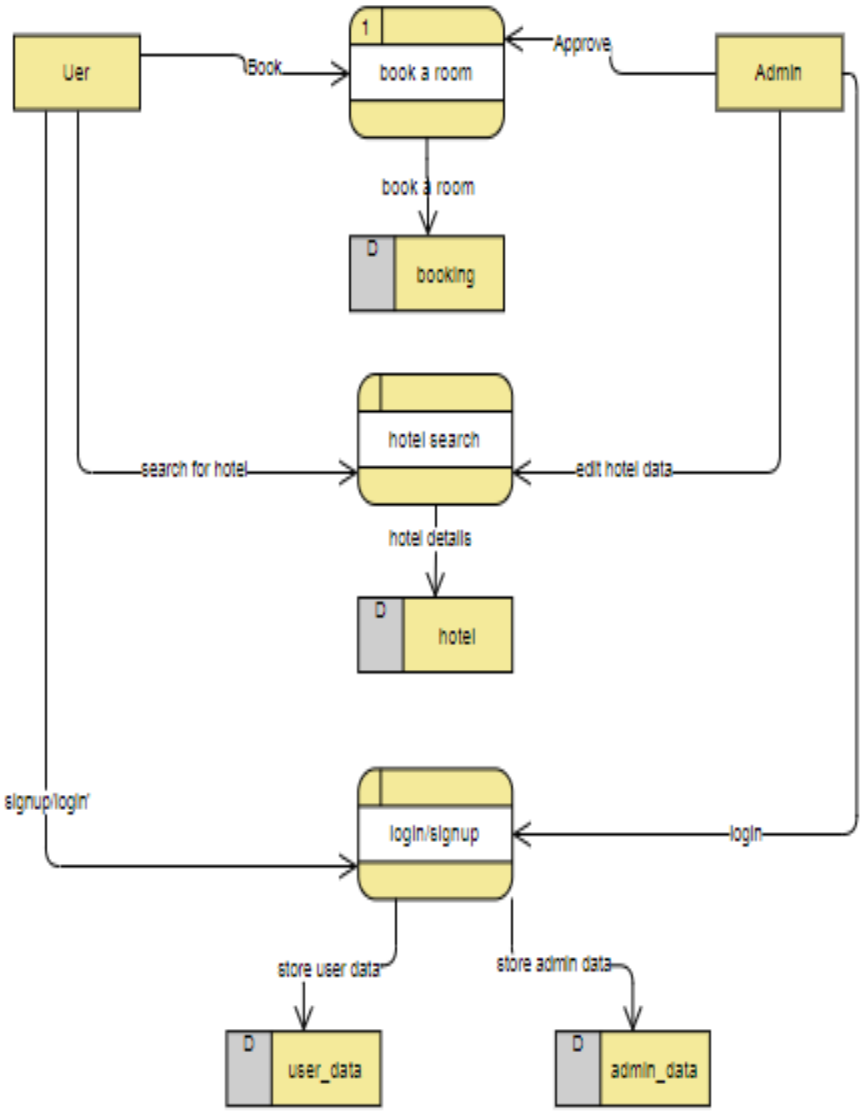

Figure 3.2- Data Flow Diagram

3.5 Design Requirement

- This system will contain two types of users like Admin and users.
- The user can view any hotels through this website.
- The user can create an account by registration.
- Admin can control everything by the dashboard
- User can get their notification after confirming booking

Chapter 4

Design Specification

4.1 Introduction

This chapter will explain User Interface (UI) of this project. User Interface is a gateway for the user and a computer system to interact, in particular the use of input devices and software. User Interface is the most crucial design to do because without a good and user-friendly UI the general user will not be interested to use the application. This chapter will describe both front end design and back end design. I try to build a smooth, bug free User Interface. So that front-end user as well as back end user will get an easy, hassle free, smooth UI experience.

4.2 Front-end Design

Front-end design is the representation of a website. This is the way of communication way between the users and the database. A client-side creation is known as front-end design. The most key component is to design the frontend in most areas of web design. In front end I used bootstrap because it's easy to use and manipulate. Bootstrap is a framework to help you design websites faster and easier. It includes HTML and CSS based design templates for typography, forms, buttons, tables, navigation, modals, image carousels, etc. It also gives you support for JavaScript plugins.

A basic front-end interface was built for users to cooperate easily with the website. Here are some front-end designs of the website given below.

4.2.2 Home Page

This is the main page of the website. This home page is also known as index page. Login, sign in, search location all this navigation bar and images are made in this page.

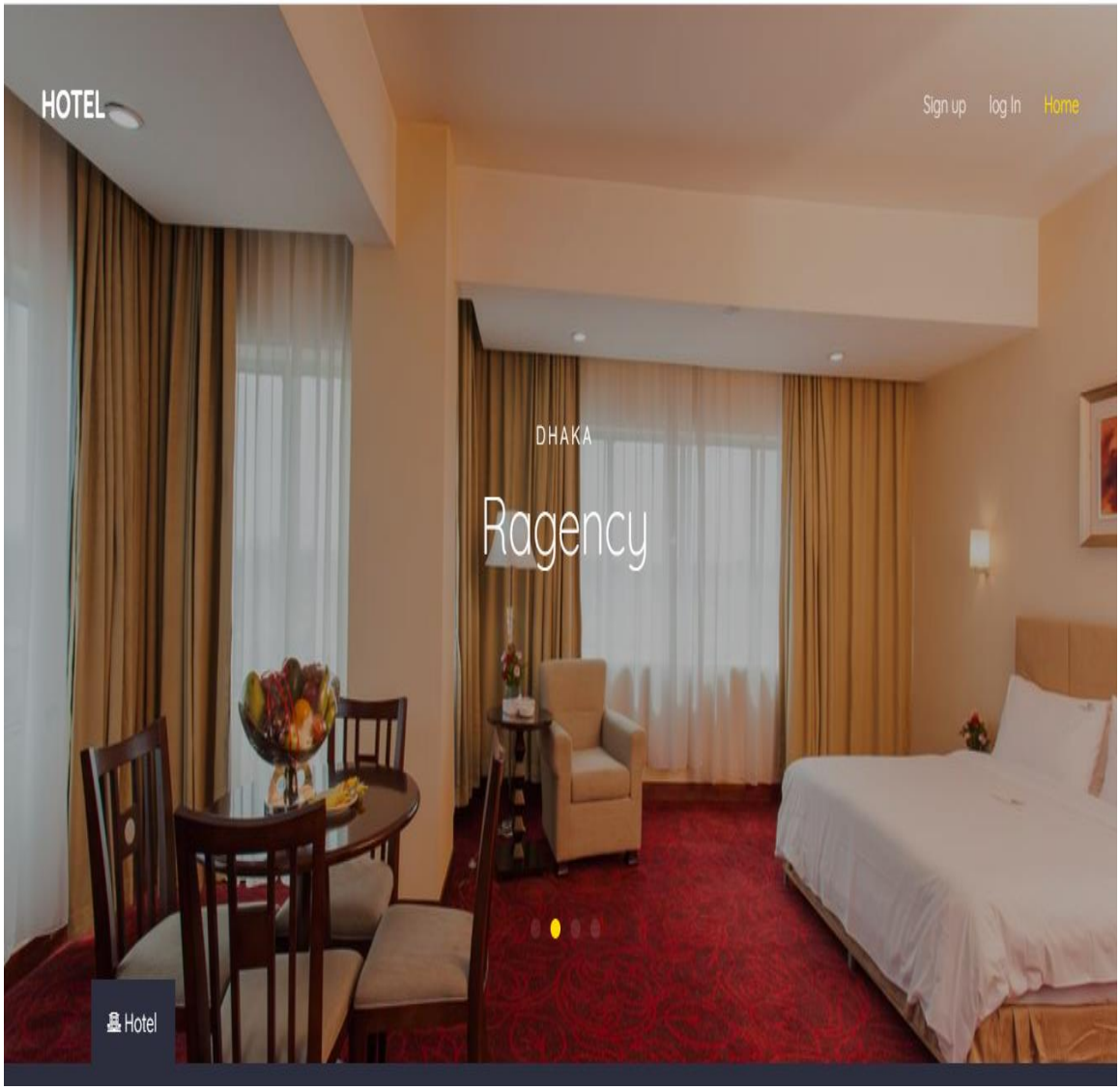

Figure 4.2.2.1: Home page

4.2.3 Search Location

Here you have to write the name of your location where you want to take the hotel.

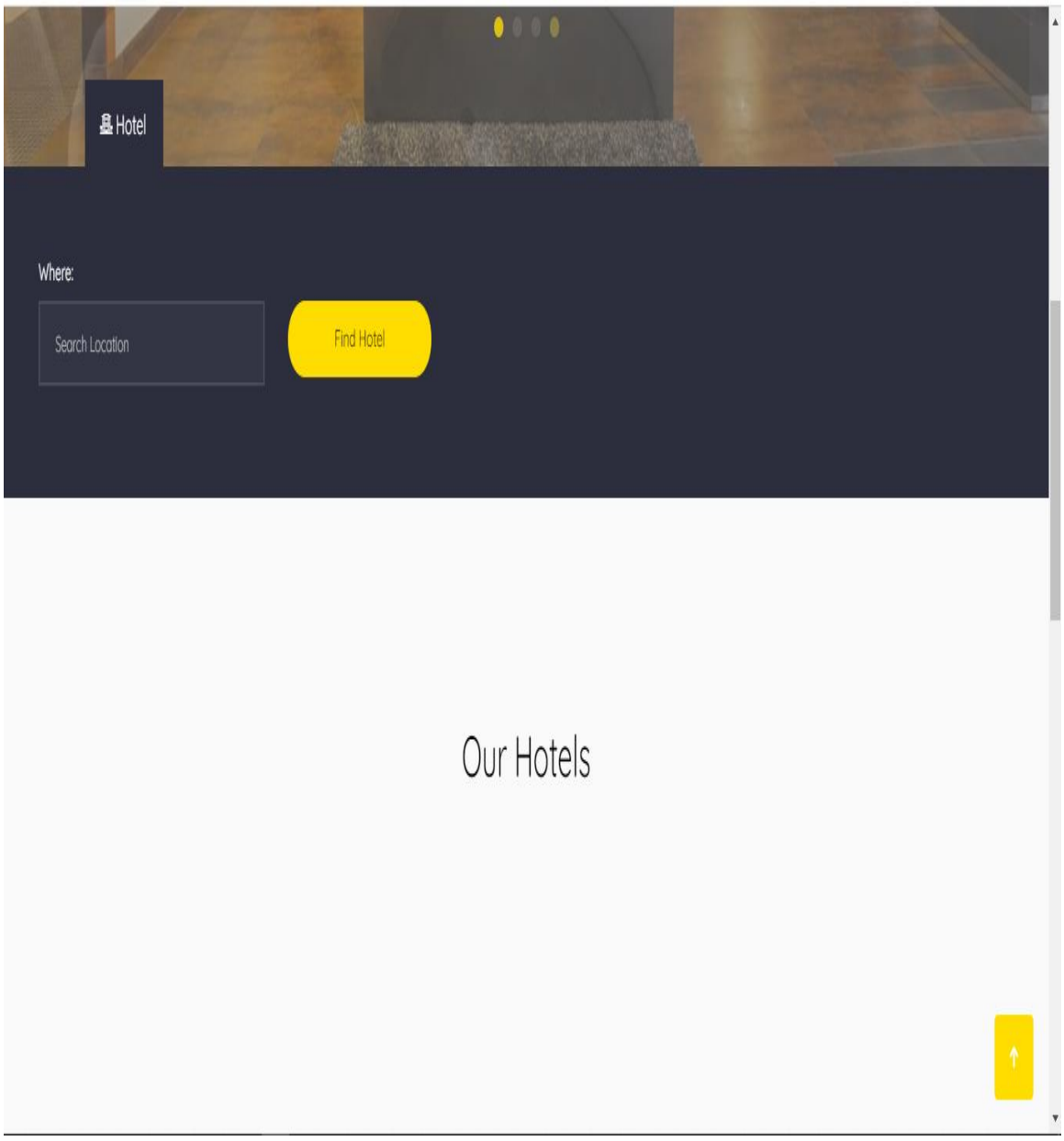

Figure 4.2.3.1: Location page

4.2.4 Accommodation

In this page of the website, different types of hotel will be displayed to the customer. It will help them to choose what kind of or what range of room they want to take.

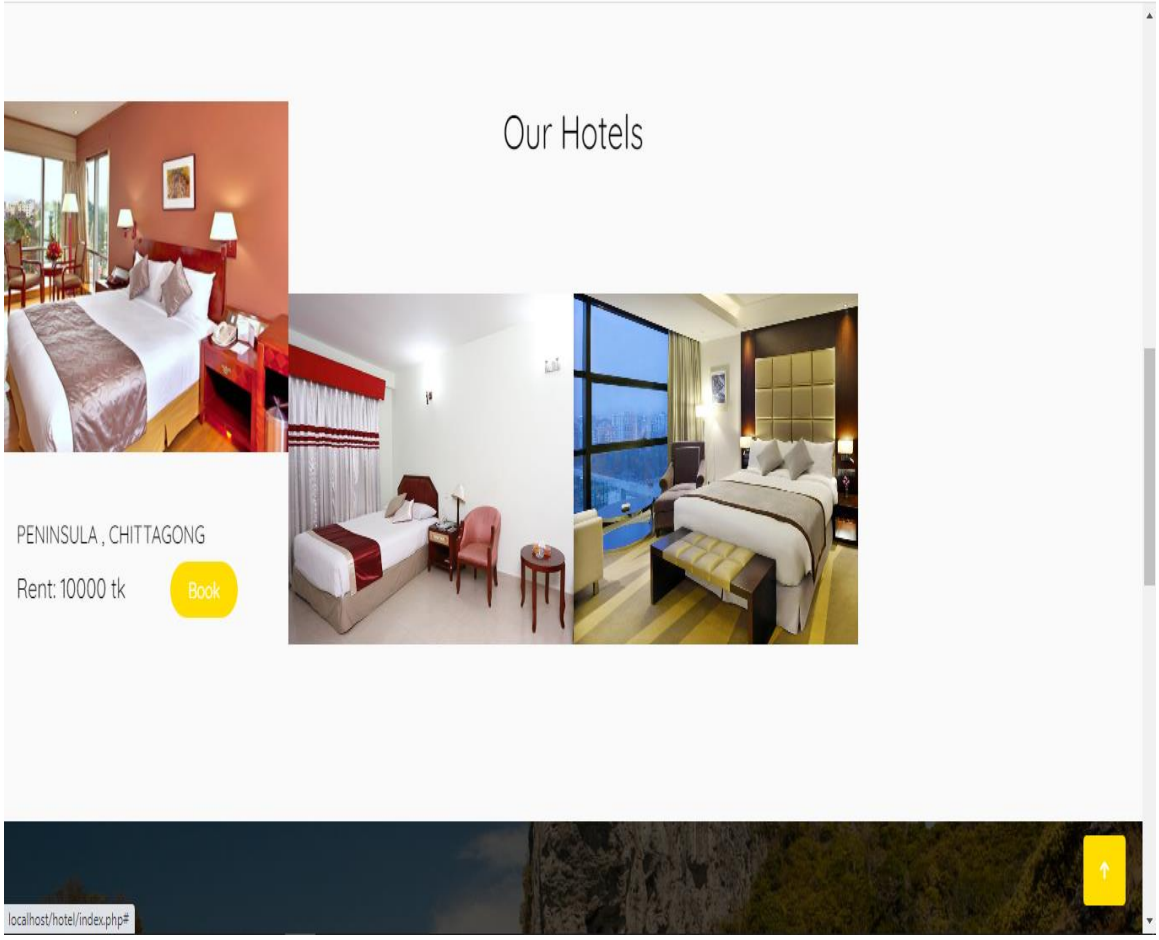

Figure 4.2.4.1: Accommodation

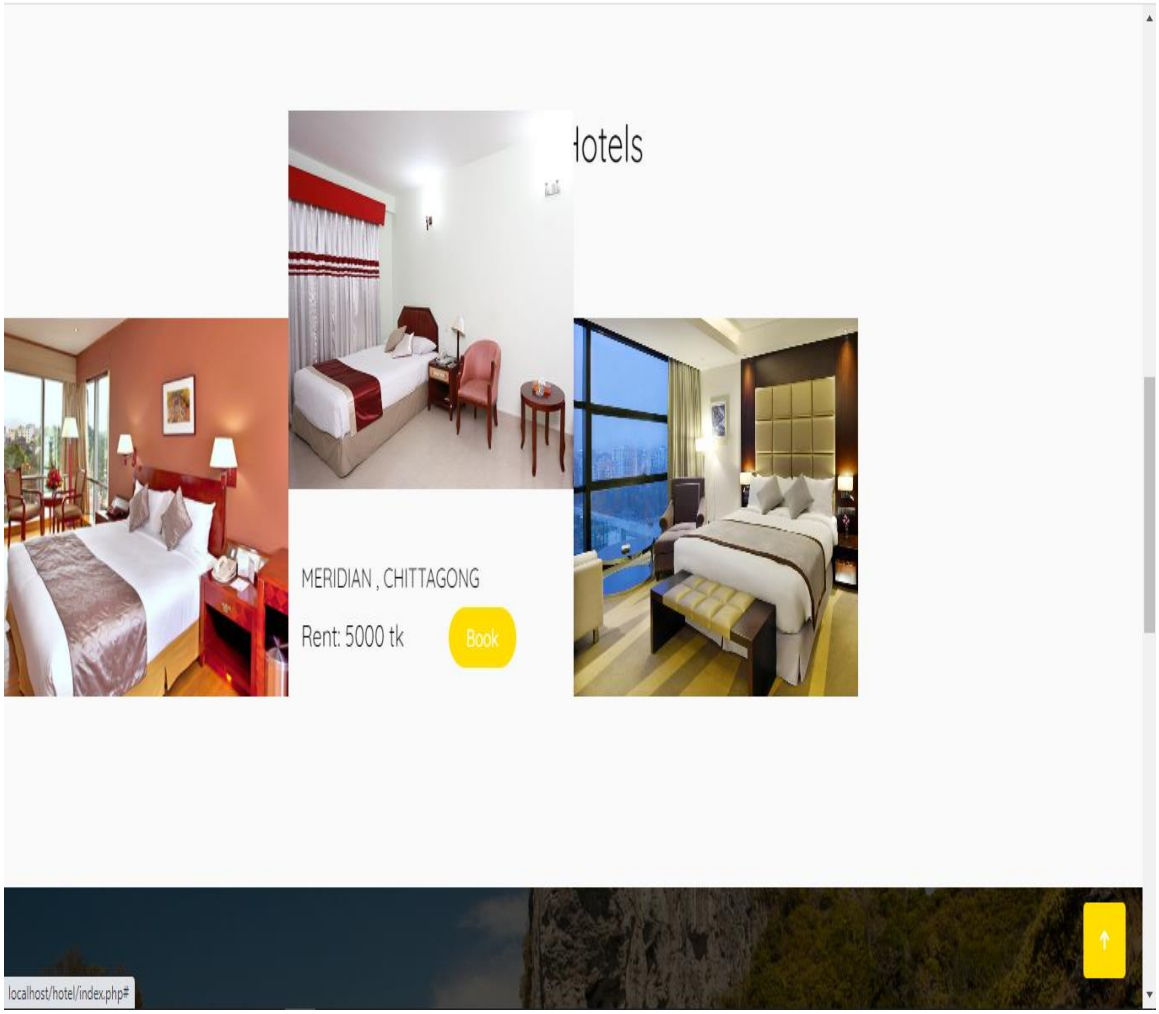

Figure 4.2.4.2: Accommodation (2)

4.2.5 Booking Process

Customer will select their preferable check in and checkout date and then book their room.

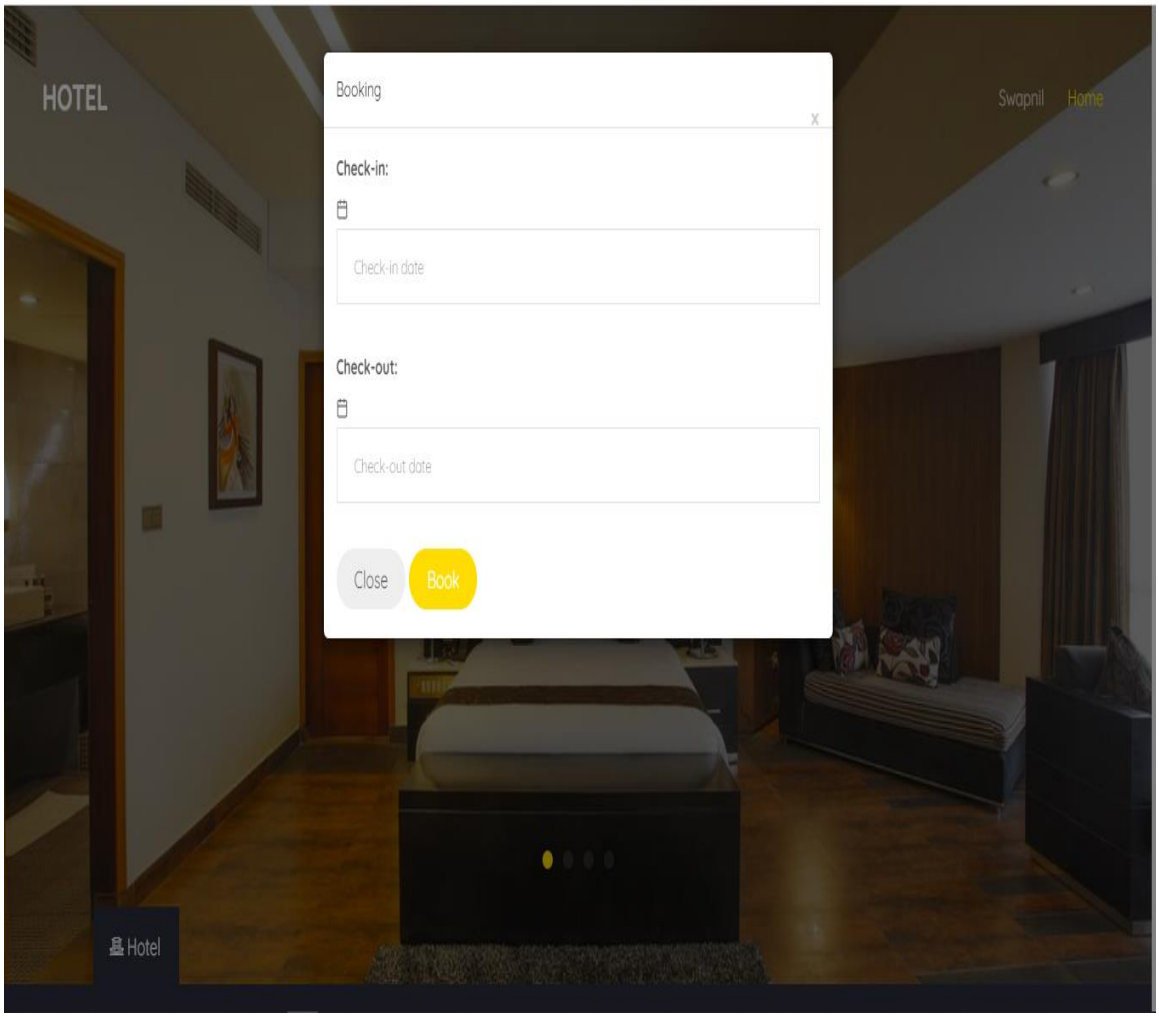

Figure 4.2.5.1: Booking Page

4.2.6 Admin Dashboard

In this page all the booking details will show and admin can give the confirmation or reject the booking from this page. This whole dashboard will be monitor by admin.

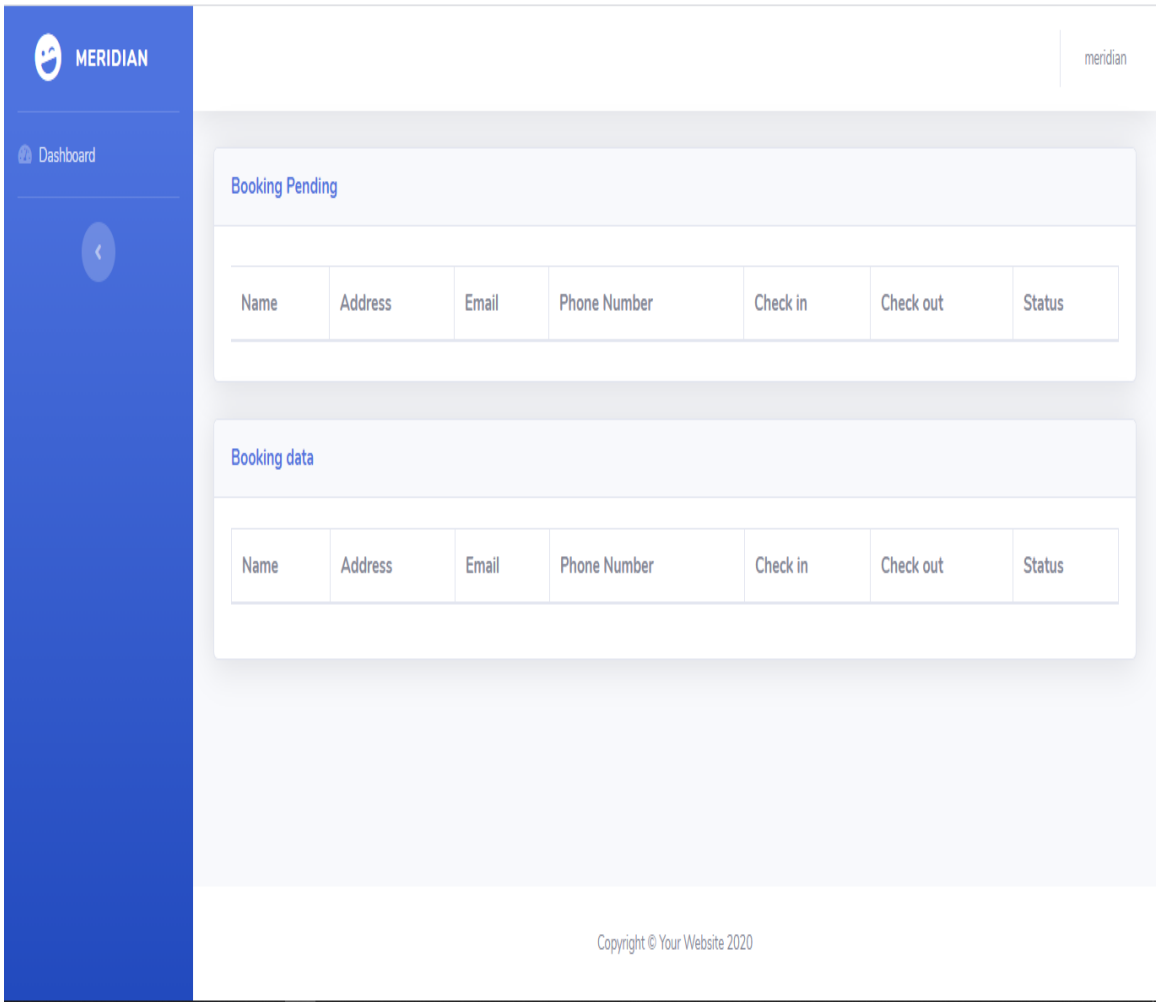

Figure 4.2.6.1: Dashboard

4.2.7 Contact Us

This page is for customers inquires about the hotel or related services. It also provides the email of the website and also phone number to help them to contact with hotel.

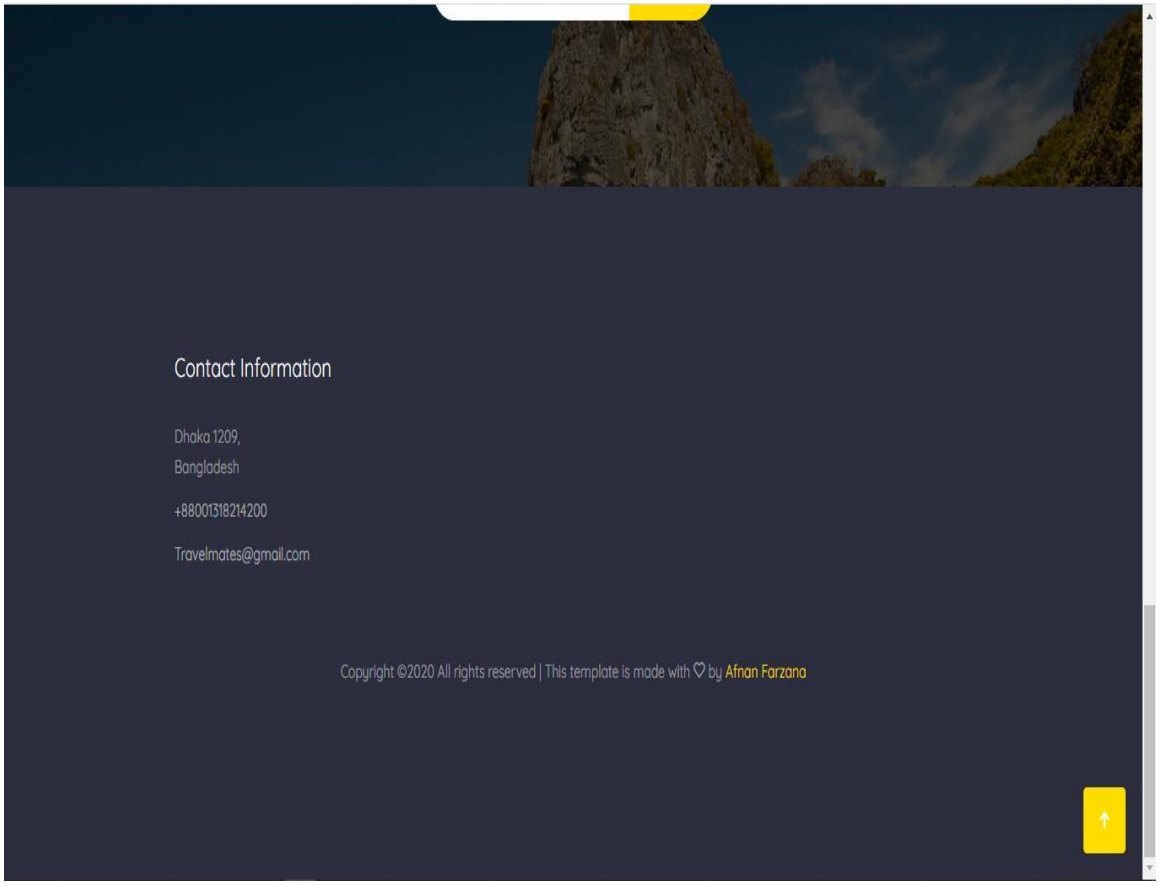

Figure 4.2.7.1: Contact Us

4.3 Back-end Design

At the back-end, the logical aspect of a device occurred. It is the most important component of a website. The entire system is based on it. The back-end applies mainly to the server hand. Scripting languages or the server side language, database management, protection, authentication, authorization, data validation, data backups, and so on, are many factors in the backend. The function which appear in front-end and people operate these functionality design in back-end. In the back-end data can insert, delete, manipulate into database. Back-end is the operational part of front-end function. Front-end can't perform without back-end support.

4.4 Interaction Design

We have used bootstrap, JavaScript, to design this web UI. These two enable us to create a better visual for the users, and in several formats, it is also accessible. Designers concentrate on designing interactive web interfaces with attitudes and acts that are rational and thought through. In order to generate desired customer experiences, successful interactive design uses new technologies and development of good connectivity.

4.5 Implementation Requirement

Finalizing the main web, implementation is the most significant step. For maintain the system properly this need to explain some basic requirement which will help this to work without having obligation and user dissatisfactions.

- The software required to implement PHP in the web programming language.
- An error message should show invalid data entry.
- JavaScript had to be added for particular designs.
- Before server-side validation using JavaScript is required.
- MySQL is the preferable database.
- For the front-end design bootstrap, JavaScript is necessary.
- Unregistered access is important to avoid the maximum access limit.

Chapter 5

Implementation and Testing

5.1 Introduction

This chapter shows how our website response in implementation of database. How well it's interacted with user and give smooth experience with the help of front-end. Also discuss about testing implementation which is help to know that test cases, test processes and test data is actual.

5.2 Implementation of Database

We generated different types of the table because of the use of PHP that define the property of the contents and the types of information. This process requires SQL queries to perform actions. The data can be verified in the model if the user is allowed to enter the information into the system.

Here are some table of database,

Company Table: In this table, all company information documents are saved.

Admin: Table Control Administrator.

User table: All users' documents are saved with accurate details.

User level: In the table, two types of users can be seen. They're consumers and administrators.

User Details: Full user data will be saved.

Hotel category: All the hotel category are stored here.

Hotel Information: In this table all hotel documents are saved.

5.3 Implementation of Front-end design

Nowadays many devices are available, such as mobile phones, tablets, desktops etc. We try to respond to our website so that customers can view and connect quickly from multiple devices with a minimal scope of the website. This is the reason i try to make a simple UI design for user.
In front end I used bootstrap because it's easy to use and manipulate. Bootstrap is a framework to help you design websites faster and easier. It includes HTML and CSS based design templates for typography, forms, buttons, tables, navigation, modals, image carousels, etc. It also gives you support for JavaScript plugins.

Why to use bootstrap:

1) Bootstrap's responsive CSS adjusts to phones, tablets, and desktops.

2) Bootstrap is compatible with all modern browsers like Google Chrome, Mozilla Firefox, etc.

3) Bootstrap has a big community and friendly support.

4) It's fully customizable, I can choose which components I'd like to use and use variables file to get do even more color and behavior customization just by using bootstrap classes.

5.4 Testing Implementation

The practice of planning and prioritizing experiments is test implementation. This is process by test Analysts who implement the test designs as actual test cases, test processes and test data.

Table 5.1: Test Case

Test Case	Test Input	Expected Outcome	Obtained Outcome	Pass/Fail	Tested on
1.Login	Login via various devices.	Successfully Login	Successfully Login	Pass	20-09-2020
2.Registration	Username, Password	Display requirement to fill all areas	Area must be filled with data	Pass	20-09-2020
3.Password	Incorrect Password	Error Password	Show Error	Pass	20-09-2020
4.Add Hotel	Input Hotel Information	Hotel post has been created	Post created successfully	Pass	20-09-2020
5.Hotel Booking Request	Book a hotel	A notification to admin	Notification received successfully	Pass	20-09-2020
6.Booking Confirmation	Responding to request	Booking confirmed	Booking successfully	Pass	20-09-2020
7.Logout	Click Logout Button	Logged out from the account	Logged out successfully	Pass	20-09-2020

5.5 Test Result and Reports

It is very critical to know that the framework is ready / not ready for implementation and that the test report is very relevant. It is a text documenting data gathered from an analysis experiment. The test report is supposed to show test results in a formal manner, which offers a scope for quickly estimating test results. It is a paper that documents data collected in a structured way from an experiment, explains environmental or operational conditions, and demonstrates the comparison of test results with test goals.

It is eventually ready to launch if the device goes through all the other forms of testing, so we can finally perform the results as the advantages of usability testing.

- The website is welcomed by users more easily.
- The system is easy to use.
- Better website performance.
- For new users, it is also easy to use.
- Better interaction user interface.

Chapter 6

Conclusion and Future Scope

6.1 Introduction

Every innovation and development have future scope and plan. This chapter discuss about the future aspects and plan regarding this web project.

6.2 Conclusion

The reason behind this project is to make people life easier. We tried to do something special for the customers. This study was able to fix the problems faced by travelers and hotels during manual booking. By creating an online booking system for travelers to make reservations at their own convenience. We built this system for giving the customer best experience of online booking. It is easy to use and hassle free process. They don't need to wait for the booking until they visit their expected place. They can relax at their home and staying home they can easily book hotel room using their devices.

6.3 Future Scope

Nothing remains unchanged in this globe. Necessity change with time so we have to come up with the time. I have many future plans regarding this project. Will work with some new and interesting feature to add in our system. Such as

- Implementation of payment gateway. When a customer books a service in a hotel they need to pay a certain amount to bill in advance. And if they cancel the booking after certain days then a small amount to bill will be deducted before refunding.
- Review system will be added so that a customer can find the best suited hotel for them.
- Some discount features will be added to attract more customers.

- Recommendation system will be implemented so that customers can get various recommendations according to their demand.

References

[1] Learn about hotelvara, available at <<http://hotelvara.com/>>, last accessed on 10-09-2020 at 8:00 PM.

[2] Learn about academia, available at << https://www.academia.edu/>>, last accessed on 15-09-2020 at 11:00 PM.

[3] Learn about project, available at << https://www.projecttopics.org//>>, last accessed on 30-08-2020 at 1:00 AM.

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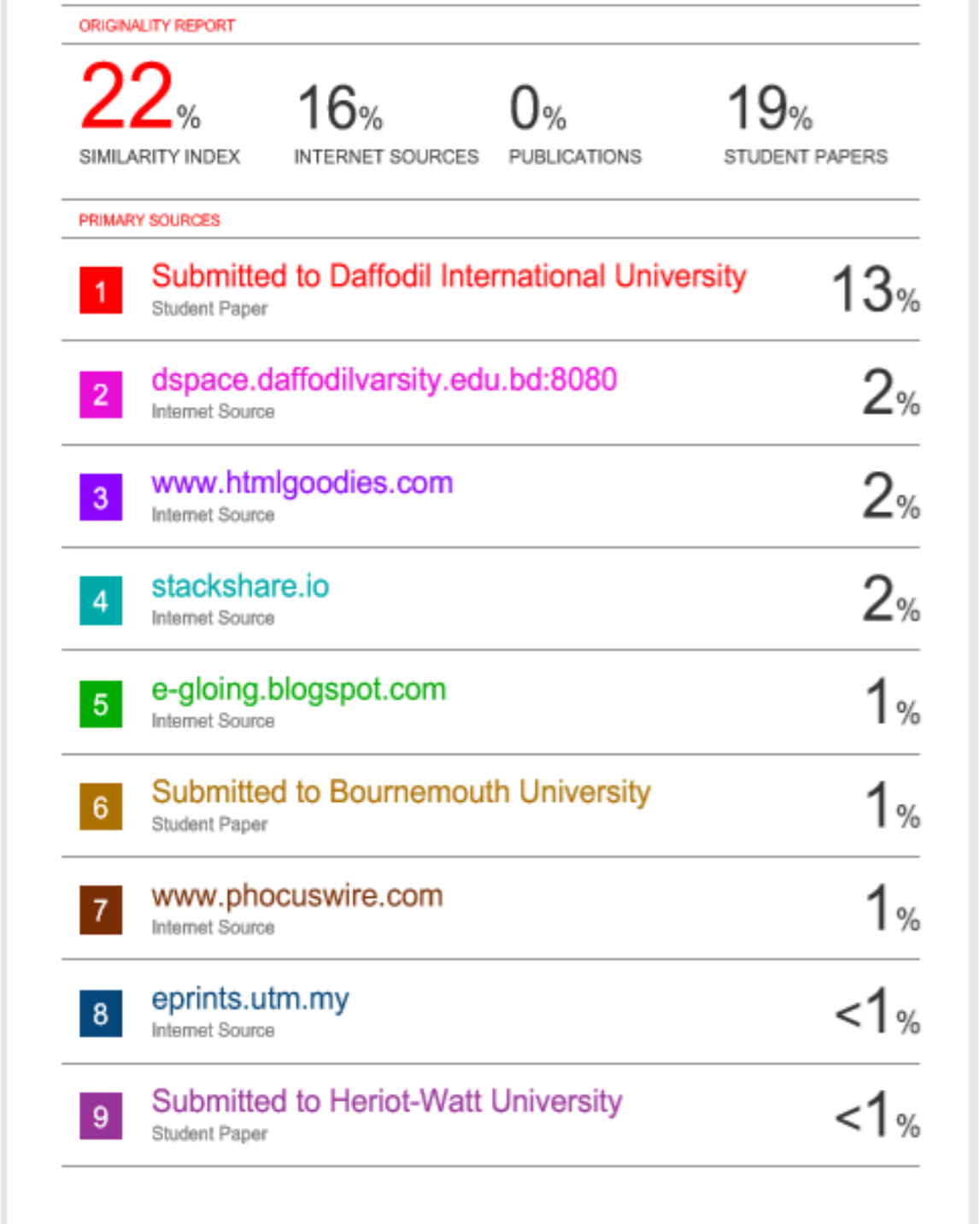

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