

WEB APPLICATION BASED TOURIST AGENCY SYSTEM DEVELOPMENT

BY

**MD. SHAKAWATH HOSEN
ID: 191-15-2483**

AND

**RINKU RANI BARMAN
ID: 191-15-2371**

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

Supervised By

Tania Khatun
Assistant Professor
Department of CSE
Daffodil International University

Co-Supervised By

Md. Mahfujur Rahman
Sr. Lecturer
Department of CSE
Daffodil International University



DAFFODIL INTERNATIONAL UNIVERSITY

DHAKA, BANGLADESH

JANUARY 2023

APPROVAL

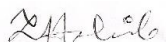
This Project titled “**Web Application Based Tourist Agency System Development**”, submitted by **Md. Shakawath Hossen**, ID No: **191-15-2483** and **Rinku Rani Barman**, ID No: **191-15-2371** to the Department of Computer Science and Engineering, Daffodil International University has been accepted 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 23th January 2023.

BOARD OF EXAMINERS

Dr. Touhid Bhuiyan
Professor and Head

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

Chairman



Dr. Md. Tarek Habib
Associate Professor

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

Internal Examiner



Tapasy Rabeya
Senior Lecturer

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

Internal Examiner



Dr. Dewan Md Farid
Professor


Department of Computer Science and Engineering
United International University

External Examiner

DECLARATION

We hereby declare that, this project has been done by us under the supervision of **Tania Khatun, Assistant Professor, Department of CSE** Daffodil International University. We 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:



Tania Khatun
Assistant Professor
Department of CSE
Daffodil International University

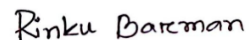
Co-Supervised by:

Md. Mahfujur Rahman
Sr. Lecturer
Department of CSE
Daffodil International University

Submitted by:



(Md. Shakawath Hossen)
ID: 191-15-2483
Department of CSE
Daffodil International University



(Rinku Rani Barman)
ID: 191-15-2371
Department of CSE
Daffodil International University

ACKNOWLEDGEMENT

First, we express our heartiest thanks and gratefulness to almighty God for His divine blessing makes us possible to complete the final year project/internship successfully.

We really grateful and wish our profound our indebtedness to **Tania Khatun, Assistant Professor**, Department of CSE Daffodil International University, Dhaka. Deep Knowledge & keen interest of our supervisor in the field of “*Web Application*” to carry out this project. His endless patience, scholarly guidance, continual encouragement, constant and energetic supervision, constructive criticism, valuable advice, reading many inferior drafts and correcting them at all stage have made it possible to complete this project.

We would like to express our heartiest gratitude to **Tania Khatun, Md. Mahfujur Rahman**, and Head, Department of CSE, for his kind help to finish our project and also to other faculty member and the staff of CSE department of Daffodil International University.

We would like to thank our entire course mate in Daffodil International University, who took part in this discuss while completing the course work.

Finally, we must acknowledge with due respect the constant support and patients of our parents.

ABSTRACT

People today suffer from mental and physical depression due to work pressure in the twenty-first century. They require rest, both mentally and physically. Travel is the best for achieving the best state of physical and mental tranquility. Travel enhances a person's mood and improves focus at work. A person's intellect is developed and actual information is gained through travel. For making traveling and hotel booking easier we develop a web-based system where people can find their tour or hotel on their preferences. People can choose everything according to their budget, location & time. It's very user-friendly for all levels of people. It offers an extremely cutting-edge administration and client panel. Users can edit their profile information and view all details for the hotels or tours they have booked. To facilitate transactions, payment methods have also been added. So, it's a completely sophisticated and hassle-free method for booking tours and hotels. In this system, users can share and describe their experiences. We'll try to provide more choices in our hotels and tours in the coming future.

TABLE OF CONTENTS

CONTENTS	PAGE
Board of examiners	ii
Declaration	iii
Acknowledgements	iv
Abstract	v
Table of Contents	vi-xii
CHAPTER	
CHAPTER 1: INTRODUCTION	1-3
1.1 Introduction	1
1.2 Motivation	2
1.3 Objective	2
1.4 Expected Outcome	2
1.5 Project Management and Finance	2
1.6 Report Layout	3
CHAPTER 2: BACKGROUND	4-7
2.1 Terminologies	4
2.2 Related Works	5
2.3 Comparative Analysis	6
2.4 Scope of the problem	6
2.5 Challenges	7

CHAPTER 3: REQUIREMENT SPECIFICATION **8-16**

3.1 Introduction 8

3.2 Business Processing Modeling 8

3.2.1 Scrum of Agile Methodology 9

3.2.2 Lean of Agile Methodology 9

3.3 Requirement Collection and Analysis 10

3.3.1 Requirement of Hardware 10

3.3.2 Requirement of Software 10

3.4 Use Case Modeling and Description 11

3.5 Logical Data Model 12

3.5.1 Data Flow Diagram 12

3.5.2 ER Diagram 13

3.6 Design Requirement 14

3.6.1 HTML (Hypertext Markup Language) 14

3.6.2 Cascading Style Sheet (CSS) 14

3.6.3 JavaScript 15

3.6.4 React JavaScript 15

3.6.5 React Bootstrap 15

3.6.6 Animation Libraries 15

3.6.7 Mongo DB 16

3.6.8 Firebase 16

CHAPTER 4: DESIGN SPECIFICATION **17-33**

4.1 Front-end Design	17
4.1.1 Contact Us	24
4.1.2 Account	24
4.1.3 User Dashboard	25
4.2 Back-end Design	26
4.2.1 Database	31
4.2.2 Authentication	32
4.3 Interaction Design and User Experience (UX)	32
4.4 Implementation Requirements	32
CHAPTER 5: IMPLEMENTATION AND TESTING	34-35
5.1 Implementation of Database	34
5.2 Implementation of Front-end Design	35
5.3 Testing Implementation	35
5.4 Test Results and Reports	35
CHAPTER 6: IMPACT ON SOCIETY, ENVIRONMENT AND SUSTAINABILITY	36-38
6.1 Impact on Society	36
6.2 Impact on Environment	36
6.3 Ethical Aspect	37
6.4 Sustainability	37
CHAPTER 7: CONCLUSION AND FUTURE SCOPE	39-40
7.1 Discussion and Conclusion	39

7.2 Scope for Further Development	39
REFERENCES	41-42
PLAGIARISM REPORT	43-45

LIST OF FIGURES

FIGURES	PAGE NO
Figure 3.2: Agile Method	8
Figure 3.4: Use Case Diagram	11
Figure 3.5.1: Data Flow Diagram	12
Figure 3.5.2: ER Diagram	13
Figure 4.1: Design of Front-End	17
Figure 4.1.1: Tour Search	17
Figure 4.1.2: Popular Hotels & Room	18
Figure 4.1.3: Top Tour Packages	18
Figure 4.1.4: Testimonial	19
Figure 4.1.5: Newsletter	19
Figure 4.1.6: Footer	19
Figure 4.1.7: Full Tour page	20
Figure 4.1.8: Tour Details	21
Figure 4.1.9: Tour Details	21
Figure 4.1.10: Hotel & Rooms full page	22
Figure 4.1.11: Hotel Details	23
Figure 4.1.12: Hotel Details	23
Figure 4.1.1.1: Contact Us	24
Figure 4.1.1.2: Our Location Map	24
Figure 4.1.2.1: Sign In	24
Figure 4.1.2.2: Registration	25
Figure 4.1.3.1: User Dashboard	25
Figure 4.1.3.2: User Booking Dashboard	26
Figure 4.2.1: Admin Dashboard	26
Figure 4.2.2: Add tour	27
Figure 4.2.3: Add Hotel	28
Figure 4.2.4: Users Manage	29

Figure 4.2.5: Manage All Hotel's Booking	30
Figure 4.2.6: Manage All Tour's Booking	30
Figure 4.2.1.1: Database	31
Figure 4.2.1.2: Database	31
Figure 4.2.2.1: Firebase	32

LIST OF TABLES

TABLES	PAGE NO
Table: 3.3.1.1 Requirement of Hardware	10
Table: 3.3.2.1 Requirement of Software	10
Table: 5.4.1 Test Results & Reports	35

CHAPTER 1

Introduction

1.1 Introduction

In recent years, the tourism sector has grown enormously. The rapid advancement of information and communication technology around the world, as well as the pervasive use of the internet, have all contributed to this massive leap. These factors have made it easier for tourists to access large amounts of data about destinations, travel information, and places of interest. E-tourism is currently expanding on both a social and economic level. However, when booking a hotel or trip, travelers sometimes face issues. They struggle to choose the tour or hotel that fits their schedule, location, and budget. Additionally, because of the limited time, they hardly get bookings.

We therefore develop a system where everything works together to deal with this problem. Depending on their needs and budget, this will assist travelers in finding a variety of tours and hotels. They will view information about hotels and tours, and they can willingly make a decision.

Our system has been created so that tourists may get detailed information about the tour or hotel. When a traveler plans to visit a location or reserve a hotel, he or she should inquire as to what is included, how big the rooms are, and how many people can stay there simultaneously. Users can simply learn about their tour and resort details with the use of this application. The application will also be helpful in figuring out the cost of travel. Additionally, a simple payment system makes it simple for the user to pay their fee. A user and admin panel are also included. User panel for adding verified information onto their profile. The admin panel is used to manage the system by accepting orders, adding new hotels and tours, and contacting with users. To make the trip more comfortable and pleasurable, users can speak with the admin panel. Admins will provide them with all facilities to go to their destination safely.

1.2 Motivation

Many times, people are unable to make hotel reservations because they lack the time and information necessary, making it difficult for them to choose the best hotel in their destination. The same applies to tours. In their vacation, they are unable to manage a proper tour. Sometimes they are unable to obtain a ticket or determine where to travel. It frequently happens that tourists do not receive a wonderful hotel or peaceful trip despite investing a lot of money and time. We were inspired to create this approach to assist tourists in finding the ideal hotel and tours that meet their requirements. This website's goal is to make it simple for tourists to choose and book hotels and tours. This will make traveling for visitors simple, comfortable, and pleasurable.

1.3 Objective

Tourists can obtain appropriate tour packages and the ideal hotel for their vacation with the help of our project.

1.4 Expected Outcome

- timing reduction
- Hotel and necessary travel
- intelligent search tools
- talking with the administrators.
- simple to use interface
- No-hassle bookings

1.5 Project Management and Finance

A project requires particular knowledge and experience to manage. Therefore, we take steps to develop professionally and give management our all.

1.6 Report Layout

The following is our project report's content:

- The project introduction, motivation for the project, goals, anticipated results, project management, and financing are all included in Chapter one of our report.
- Terminologies, comparable works, analysis, the scope of the problem, and difficulties are included in chapter two.
- Third chapter offers an introduction, general description, system models, project design, and diagrams. It also includes requirement specifications for the project.
- The primary design components of Fourth chapter are administrative design and user interface design.
- The testing section of Chapter five discusses the front-end implementation and database implementation.
- The impact of this initiative on society and the environment is discussed in Chapter 6
- Chapter seven discusses the project's completion and scope for future development.
- The final portion is the References section, which includes the sources utilized for the project

CHAPTER 2

Background

2.1 Terminologies

Online travel booking is a web-based marketplace that provides consumers with a variety of services such as hotel booking, flights, tours, and cruises directly from travel suppliers. Customers benefit from the convenience of booking from the comfort of their own homes, as well as access to the best travel deals and packages.

An online travel booking system is essential for travel management because it saves time. After all, everything is now done electronically rather than manually. Because the online market is much larger than the offline market, the online travel booking system also helps travel agencies grow their business. The online travel booking system saves time by allowing for quick keyword entry transactions. With the help of quick keyword entry transactions, you can access all information, no matter how old it is. Not only that, but an online travel booking system can also help with business marketing. Hotels, resorts, guest houses, and villas can all be promoted by your company. A travel booking system online can also help improve business productivity and the agency's ability to manage change. We provide the following features:

- Quality images
- Online based Hotel, Resort booking system
- Secured online payment management facilities
- Review & rating system
- Share your experience
- Recommended best tourist places
- The best way to your budget friendly tour
- Guest Profiling
- Best Rate Management
- Get Reservation Affirmation
- Policies for Reservation Release
- Automated Booking Confirmation

- Managing Special Request

2.2 Related Works

The best approach to get noticed is to establish an internet presence. To put the proper material in the right place, it all boils down to implementing hotel resort social media techniques and content marketing. By offering easily accessible, adaptable, and reasonably priced top-notch tours, our platform seeks to level the playing field for tourists. Use our travel app to discover more about Bangladesh if you're visiting there and to simplify your life.

All across the world, there are several websites that offer traveler recommendations for hotel and resort reservation systems. They do not, however, offer flawless service. There are several travel applications in our nation. But what if we require everything at once? Everything is never included in a single application. A top-notch travel booking app can help us with all kinds of tours if we want to provide them ourselves. In this instance, we are creating a warm and welcoming style booking suggestion system for tourists. No other organization would ever offer you a booking system to give you the necessary instructions, as the majority of institutions utilize complex and pricey management systems that are largely focused on tourism aims. You are welcome to travel everywhere in Bangladesh as we have a well-designed and well-facilitated tourism administration system that offers the greatest travel experience at a fair price. Additionally, we have concentrated on enhancing consumer interaction and visiting a user and instructor community. Several studies have looked into how people book hotels and resorts online using web-based platforms.

A comparison-based hotel and resort booking system called Vhromon was developed to address this problem, according to Md. Sajjad Mahmud Khan, Sajjad Kashem, and Mohammad Monirujjaman Khan's paper. By simply signing on to the internet, anyone may make reservations at a hotel or resort. Like most platforms in use today, Vhromon is an interactive web platform that is easy to use. They only list the well-known hotels and resorts, though, not all of them. Contrarily, Vhromon lists everything so that clients may compare them and select the best option for them. Additionally, unlike the current

system, this one has a vendor panel where any owner of a hotel or resort may effortlessly and hassle-free add their property.

Rozalia Adina Letia Negrua and Veronica Rusa both made suggestions. This article's main objective is to ascertain the extent to which Romanian hotels have used internet booking systems. We developed a qualitative study based on various research techniques, such as website analysis, to help achieve this goal. Promotional materials, first-hand accounts, and analyses of government statistics are among the documents examined.

In order to accomplish the goal of the article, Ph.D. candidates Sitara Inoyatova, Prof. Dr. Obidjon Khamidov, and Asror Nigmonov used a qualitative research approach in this work that involved website analysis, self-evaluation, and open access statistics sources. The paper will be based on a review of the literature on comparable studies done by other authors in the field of online hotel reservations, which is of great interest to the researchers because there has been very little research on the same area in Uzbekistan, making it extremely difficult to obtain reliable resources that would demonstrate the nation's current level of integration.

2.3 Comparative Analysis

People's sensibilities have an impact on tourism, according to several research. We employed a number of strategies during the experiment, focusing on Four Representatives. Airbnb is the most well-known representation of the commercial system, followed by Travelzoo, Go Zayyaan, Akashbari Holidays, Obnkash, and Amy Bd. We will undertake the same feature-based comparative research to evaluate the usability of default variables. In order to operate the tourism system, tourism frameworks were used.

2.4 Scope of The Problem

While developing this travel website, we ran into a number of issues. Come learn from us how the tourism-related organizations in our nation run their operations and management. Decide which activities will be emphasized and which will be preserved. 1 When we originally started building the system, there were several faults, and we struggled greatly to fix them.

2.5 Challenges

Getting customers to trust travel websites is the most challenging task. Contrary to popular belief, it is not always possible to acquire the same pricing or services as an agent by just visiting an online travel agency. Experience and individualized care offer benefits.

- Maintaining an online presence
- upholding standards
- Managing duplicate data entries are all important.
- Budget Management
- Understanding the demands of the consumer
- Recognizing and updating the trend
- Managing the flow of cash

The job of the travel website has actually changed from being a gatekeeper to being an information curator! By removing the majority of the irrelevant, false, deceptive, or unsuitable content that customers have access to but may not always be able to properly evaluate, travel agents help consumers make sense of the information overload.

CHAPTER 3

Requirement Specification

3.1 Introduction

We gathered data on what consumers now need and outlined the issues that the system is meant to address. We have gathered the necessary requirements, including the necessary hardware, software, programming language, and database model.

3.2 Business Process Modeling

An agile model is the favorite approach that we utilize for web development initiatives. By breaking the project down into manageable pieces, we may swiftly complete our tasks on schedule.

The fundamental components of the agile technique are as follows:

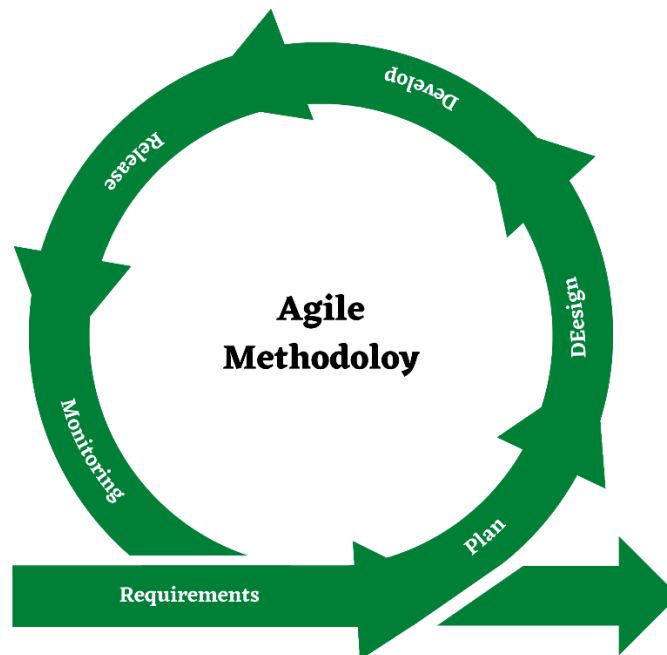


Figure 3.2: Agile Method

Parts of the entire project were designed and split. The team's effort is concentrated on little tasks that require urgent attention. The agile methodology also enables us to quickly modify the project's scope and respond directly to market developments. For managing complex web development projects with many variables, agile is a better fit. The team is able to work on projects in quick iterations with predetermined deadlines and deliverables but no predetermined order.

3.2.1 Scrum of Agile Methodology

Agile scrum methodology is an incremental development-based approach to project management. Each iteration consists of two to four-week sprints, with the aim of completing the most crucial features first and producing a potentially marketable product at the end of each sprint. In succeeding sprints, the product is expanded, and adjustments are made in response to stakeholder and consumer feedback in between sprints.

Agile scrum methodology is centered on delivering multiple iterations of a product to stakeholders in order to deliver the highest business value in the shortest amount of time, in contrast to other project management methods that emphasize building an entire product in a single operation from beginning to end.

The agile scrum technique has many advantages. First, since each set of goals must be accomplished inside each sprint's time limit, it promotes the development of products more quickly. It also necessitates frequent goal-setting and planning, which aids the scrum team in concentrating on the goals of the current sprint and boosting output.

3.2.2 Lean of Agile Methodology

Lean is simultaneously a way of thinking and a way of doing things. The approach improves in decreasing time waste, cutting expenditures, and raising productivity. It is currently widely used in a number of industries, including the production of web applications.

3.3 Requirement Collection and Analysis

Communication between what the client wants and what the developer supplied is what is known as requirement gathering. In our project, for instance, we provide a place where travelers may locate their affordable hotel and tour. As a result, if a customer searches for those two, it will meet our requirements. Additional hardware and software-related requirements for executing our project are also present.

To gain ideas, we chatted with a few particular individuals. We also visited websites for comparable fields of work and gathered the essential data.

3.3.1 Requirement of Hardware

Table: 3.3.1.1 Requirement of Hardware

Processor	Intel Corei3/AMD 6 th Gen
Motherboard	Asus BM610
Ram	Minimum 512MB
Internal Card	Any types of cards
Hard Disk	50GB
Graphics Card	Intel UHD Graphics 630

3.3.2 Requirement of Software

Table: 3.3.2.1 Requirement of Software

Software	Usage
Operating system (Windows, Mac, Linux)	To fire up the PC and arrange all equipment parts, software and tweaked programming
Code Editor (VS code, Atom)	To run our project in local server
MongoDB	To store and make database

3.4 Use Case Modeling and Description

A use case model defines a new system's intended functionality. A Use Case illustrates a specific instance of a user's engagement with the system. Utilize-case diagrams show what the system does and how the actors use it, but they do not show how the system works within. To make discussions easier, a use-case diagram is used to graphically represent a portion of the model. A given model will often be accompanied by a number of use-case diagrams, each of which displays the model elements that are pertinent to a specific purpose. Due to their conciseness, case diagrams can be an effective dialogue tool for stakeholders. The partners must decide how the strategy will be developed because the presentations make an effort to match the real world.

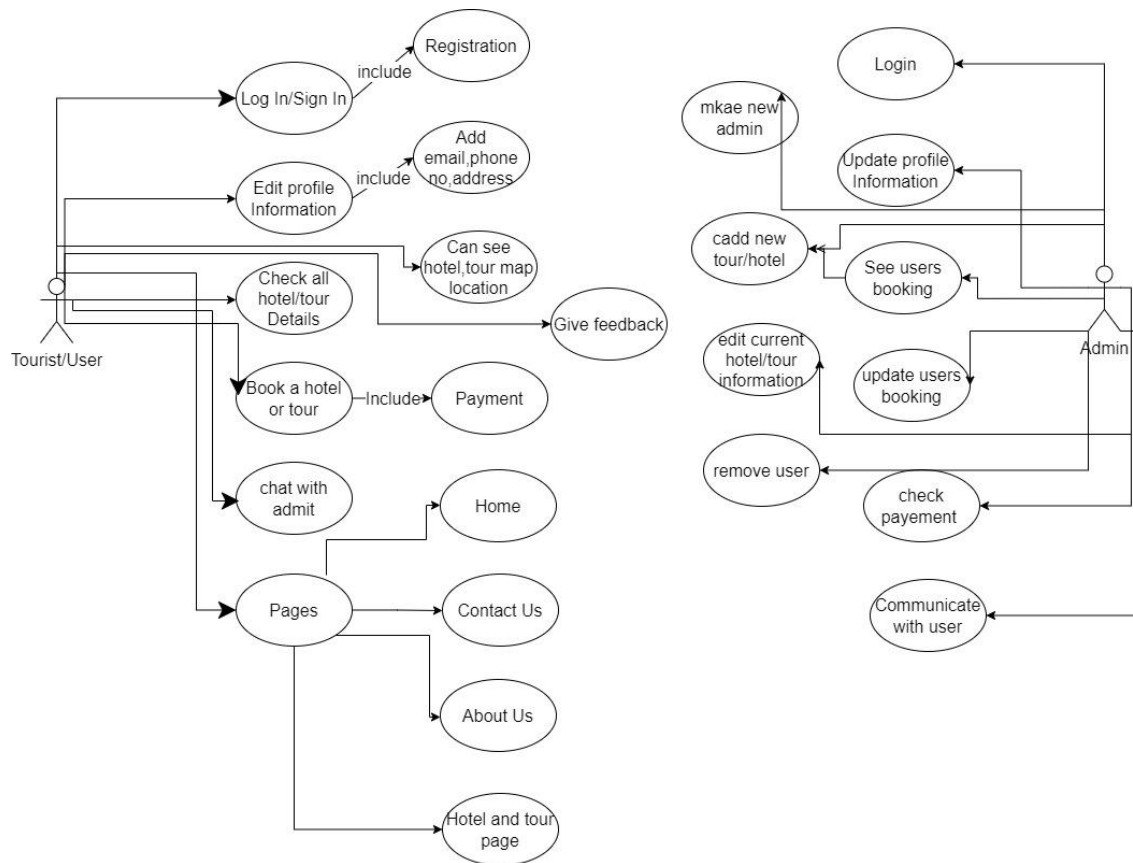


Figure 3.4: Use Case Diagram

3.5 Logical Data Model

No matter what database management system is being utilized, a logical data model defines how a system must be built. The people who design a logical data model are typically data architects and business analysts. Developing a very technical diagram of the underlying laws and data structures is the aim of developing a logical data model.

3.5.1 Data Flow Diagram

A data flow diagram (DFD) shows how information moves through any system or process. It displays data inputs, outputs, storage locations, and routes between each destination using predefined symbols such as rectangles, circles, and arrows as well as brief text labels. DFD is an easy approach to condense the data flow characteristics of a process into one page. The type of information being conveyed should be indicated by the flow's name. The arrow indicates the direction of flow. Processes connect to warehouses, Terminators, and flows.

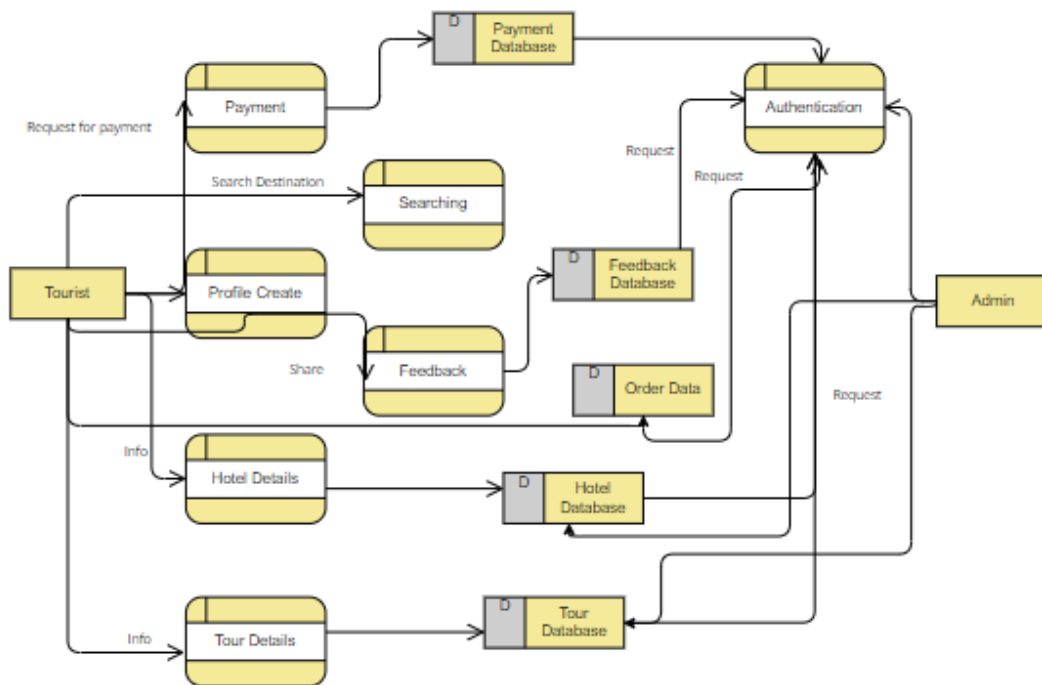


Figure 3.5.1: Data Flow Diagram

3.5.2 ER Diagram

There will be a number of visitors, guests, and administrators in this system. They are identified specifically, each visitor and administrator have a profile, an email, phone number, picture, address, password, and feedback will all be included on the profile. The tourist can view hotel information, take a tour, and make reservations. can also make payments. Admins can update profiles, check bookings, and create new tours and hotels. Everything will be under the admin's control, and after the tourist has received admin approval, they are permitted to continue their journey.

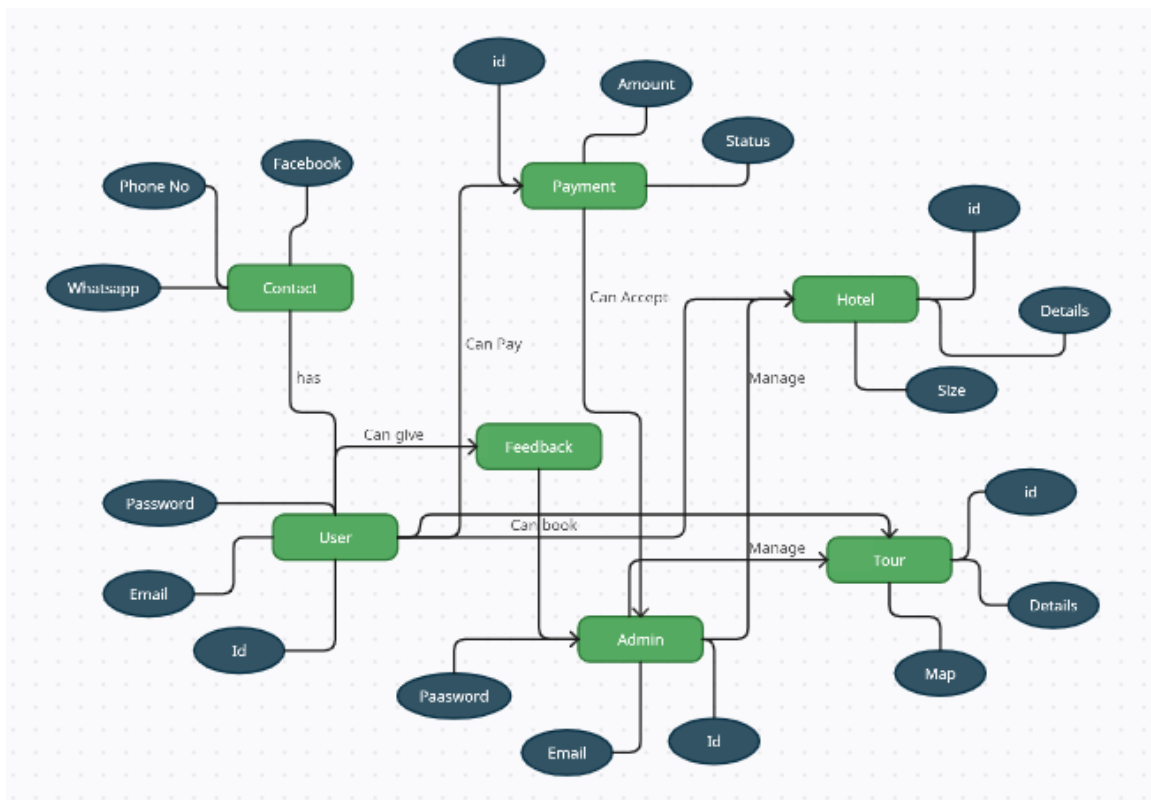


Figure 3.5.2: ER Diagram

3.6 Design Requirement

The software development process and the database architecture, which is the overall design of the data, structure, and other documents, have been covered in this part.

Our application's user interface is designed using:

- HTML (Hypertext Markup Language)
- Cascading Style Sheet (CSS)
- JavaScript
- React JavaScript
- React Bootstrap
- Many types of the animation library

For Store Data and making an admin panel we use:

- Mongo DB database
- React admin panel

For Authentication We use:

- Firebase Authentication

3.6.1 HTML (Hypertext Markup Language)

The majority of webpages are written in HTML. Pages are created and functionalized using HTML. Beginning in 1989, Tim Berners-Lee, Robert Cailliau, and others developed HTML for the first time. Hyper Text Markup Language is what it stands for.

3.6.2 Cascading Style Sheet (CSS)

A stylesheet language called Cascading Style Sheets (CSS) is used to describe how an HTML content is presented. According to W3C guidelines, CSS is one of the fundamental languages of the open web and is standardized across Web browsers. In the past, different CSS standard components were developed simultaneously, allowing for the versioning of the most recent recommendations. Perhaps you are familiar with CSS1,

CSS2.1, or perhaps CSS3. There will never be a CSS3 or CSS4, and instead, everything is CSS right now.

3.6.3 JavaScript

A small, interpreted, or just-in-time compiled programming language containing first-class functions is called JavaScript (JS). Although JavaScript is best known for being the scripting language for Web pages, several applications other than browsers, like Node.js, Apache CouchDB, and Adobe Acrobat, also use it. JavaScript is a dynamic, prototype-based language that supports object-oriented, declarative (like functional programming), and imperative programming paradigms.

3.6.4 React JavaScript

Interactive user interfaces may be easily made with React. React will effectively update and render the appropriate components as your data changes if you provide straightforward views for each state in your application.

3.6.5 React Bootstrap

The Bootstrap JavaScript is replaced by React-Bootstrap. Each component was created from the ground up as a genuine React component, free of other dependencies like jQuery. React-Bootstrap is one of the first React libraries, and because it has developed and matured alongside React, it is a great option for your UI foundation.

3.6.6 Animation Libraries

Implementing animations on websites is a crucial aspect of the work of a React frontend developer, from simple text or picture animations to intricate 3D animations. A React application's overall user experience can be enhanced through animation.

3.6.7 Mongo DB

A horizontal scale-out design was used to create the open-source document database MongoDB, which uses a flexible schema to store data. In the developer community, MongoDB, which was established in 2007, has a large following.

Each record in a MongoDB database is a document described in BSON, a binary representation of the data, as opposed to tables of rows and columns like SQL databases. The data is then accessible to applications in JSON format.

3.6.8 Firebase

By enabling secure access to the database directly from client-side code, the Firebase Realtime Database enables you to create robust, collaborative apps. Data is locally stored, and real-time events continue to occur even when the user is offline, providing a responsive experience.

CHAPTER 4

Design Specification

4.1 Front-end Design

Here is the homepage for our system. People first connect with this page when they want to access our website. Users who do not log in or register are unable to rent or book anything on the landing page.

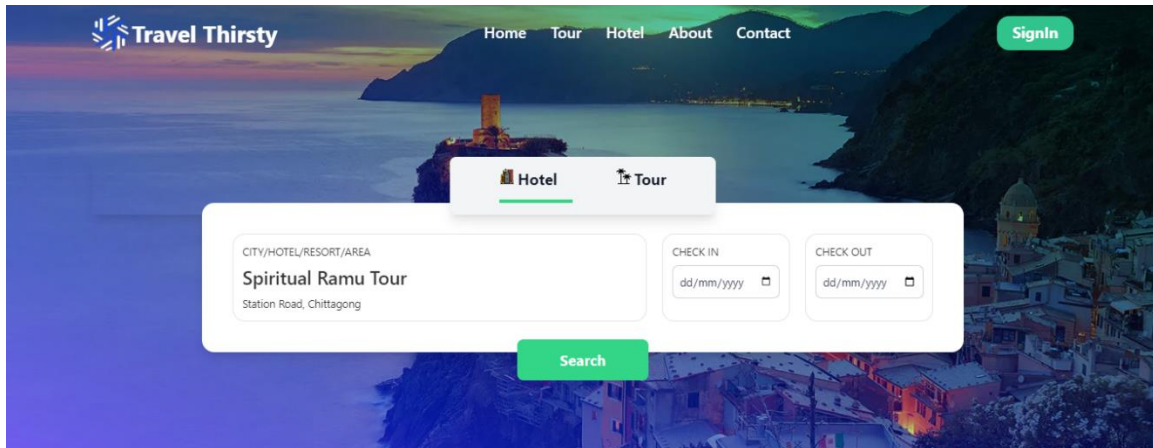


Figure 4.1: Design of Front-End

Our website's home page is this one. This page will load the first time a person clicks on the link to our website. A search engine is located in the header up top. A user can use the search function to look up their destination.

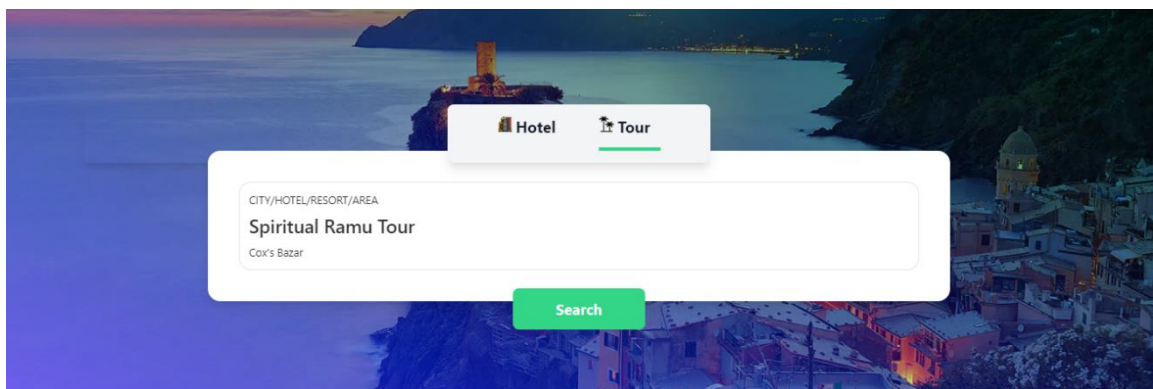


Figure 4.1.1: Tour Search

A user or tourist can search for their chosen trip using this tour search feature. They will be redirected to the tour specifics after looking for tours.

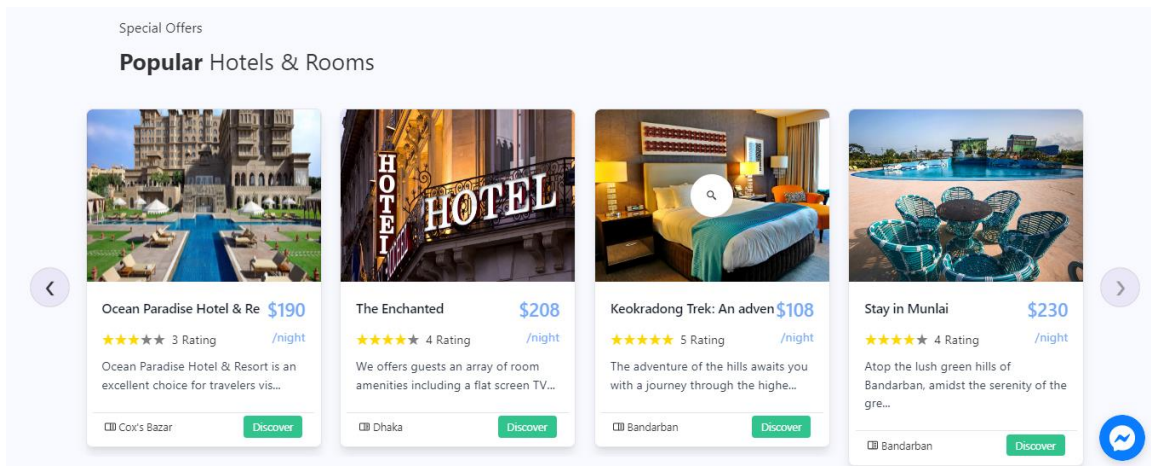


Figure 4.1.2: Popular Hotels & Room

Here are popular hotel room features. Top hotel rooms are shown here.

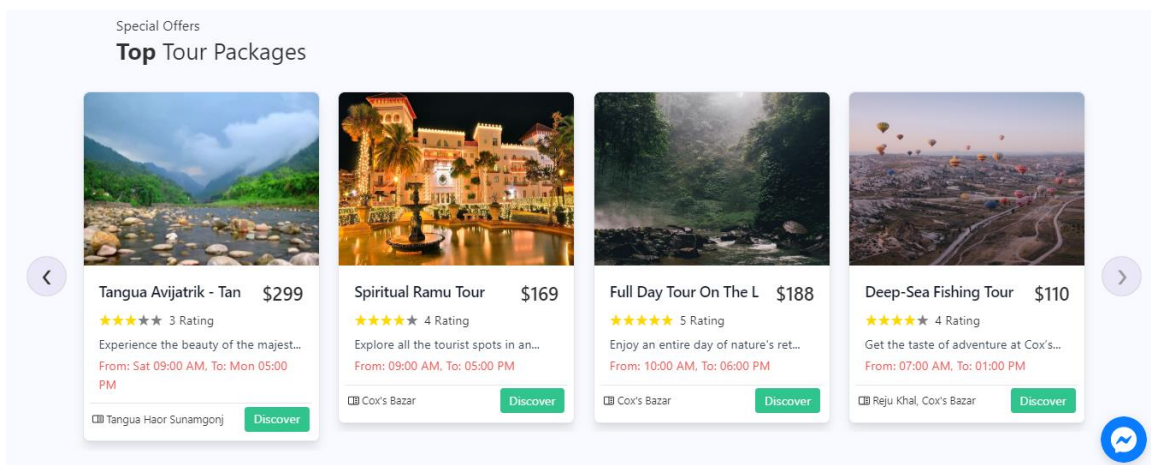


Figure 4.1.3: Top Tour Packages

popular tours are shown in this section, where people will see the top tour list.

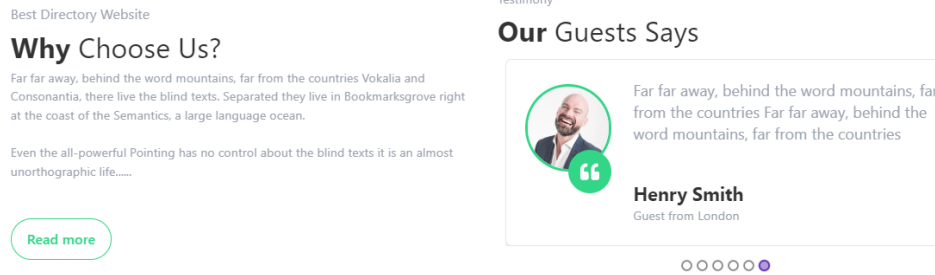


Figure 4.1.4: Testimonial

We have a testimonials page here. After utilizing our services and having a successful tour or trip, clients provide feedback.

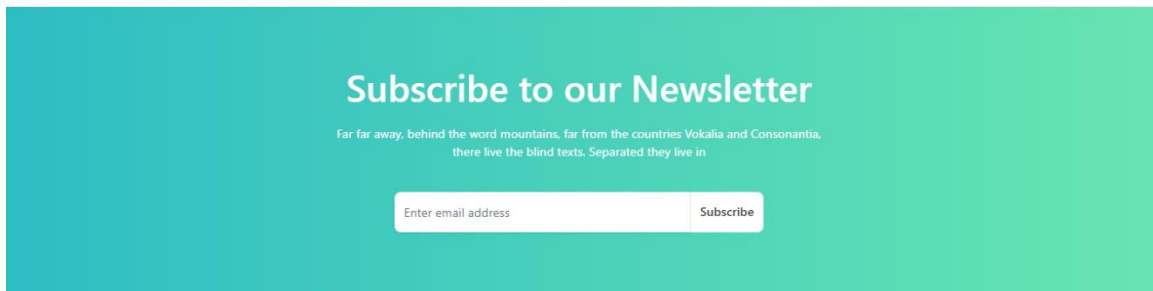


Figure 4.1.5: Newsletter

The Newsletter section for getting updated news, and offers from us via email.

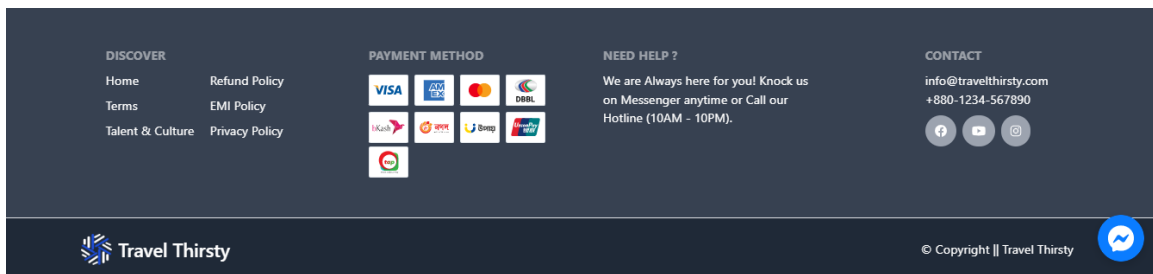


Figure 4.1.6: Footer

The Footer section contains navigation pages, contact information, location, and accepted payment methods

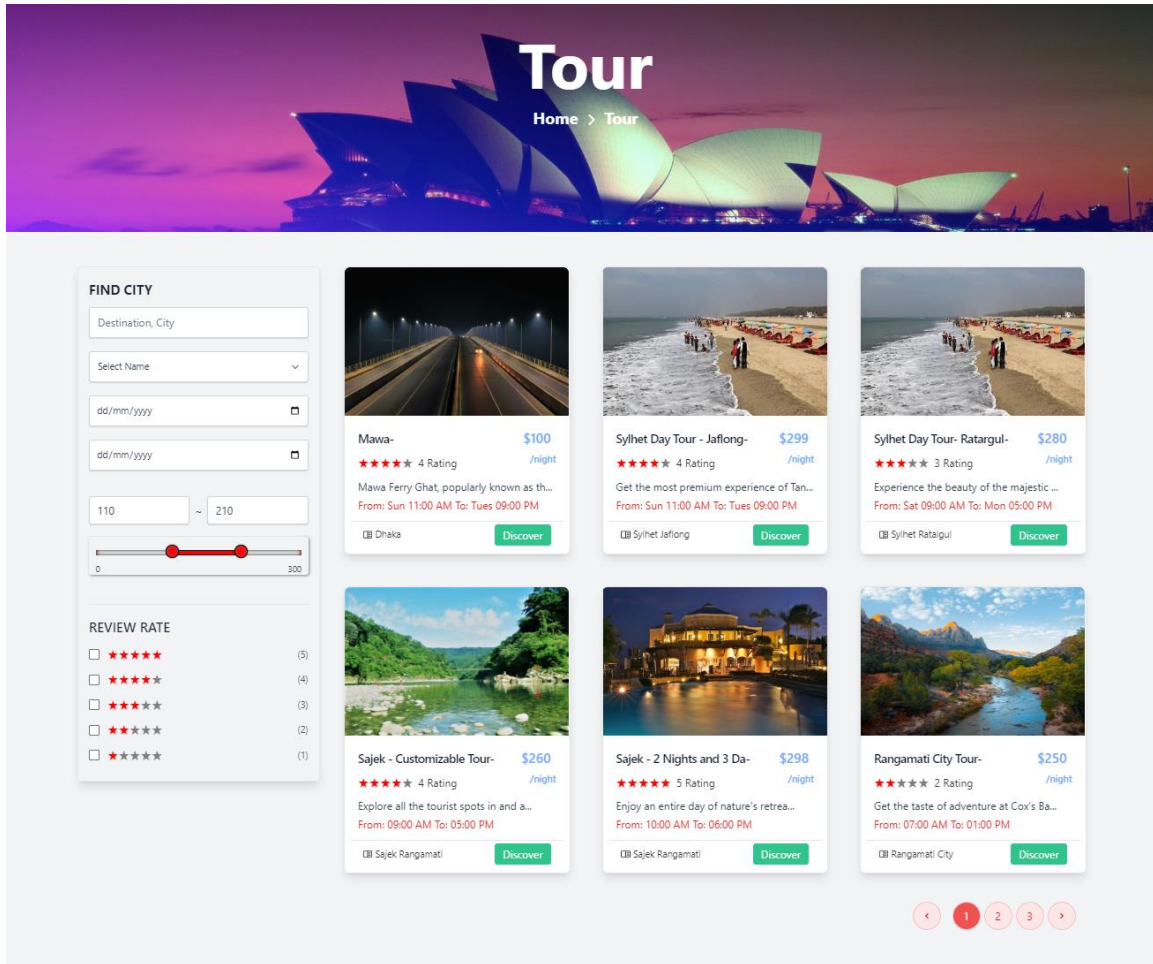


Figure 4.1.7: Full Tour page

This is the full tour page. Where all tours are shown. On the left side, the user can find the city using the search method. Also, can search using review rates, and price ranges. If the admin wants, he can add new tours or can delete tours

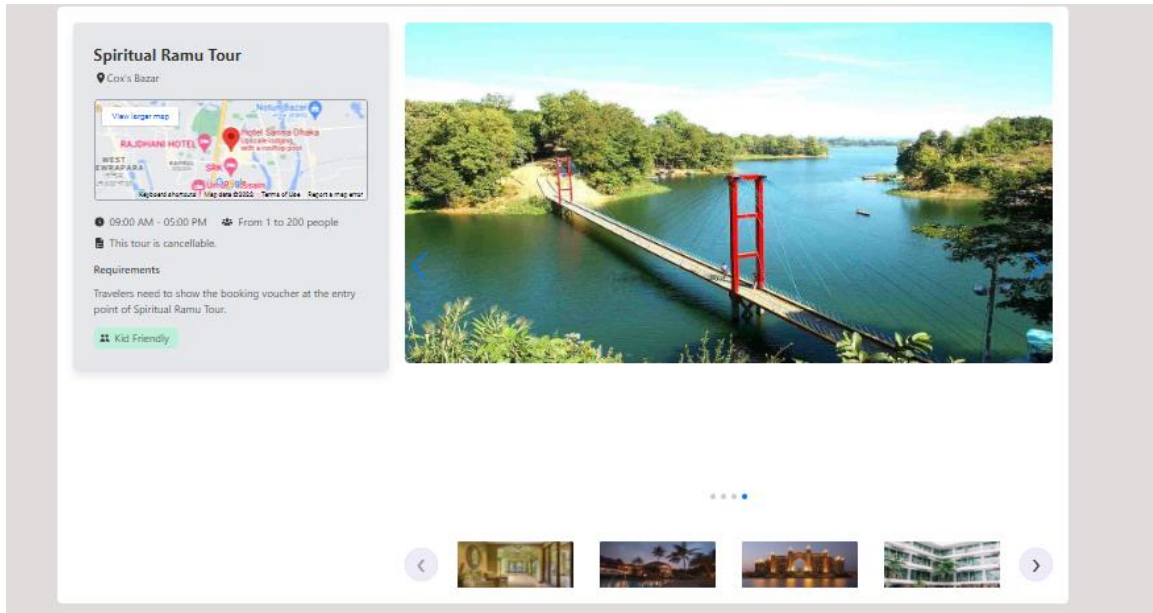


Figure 4.1.8: Tour Details

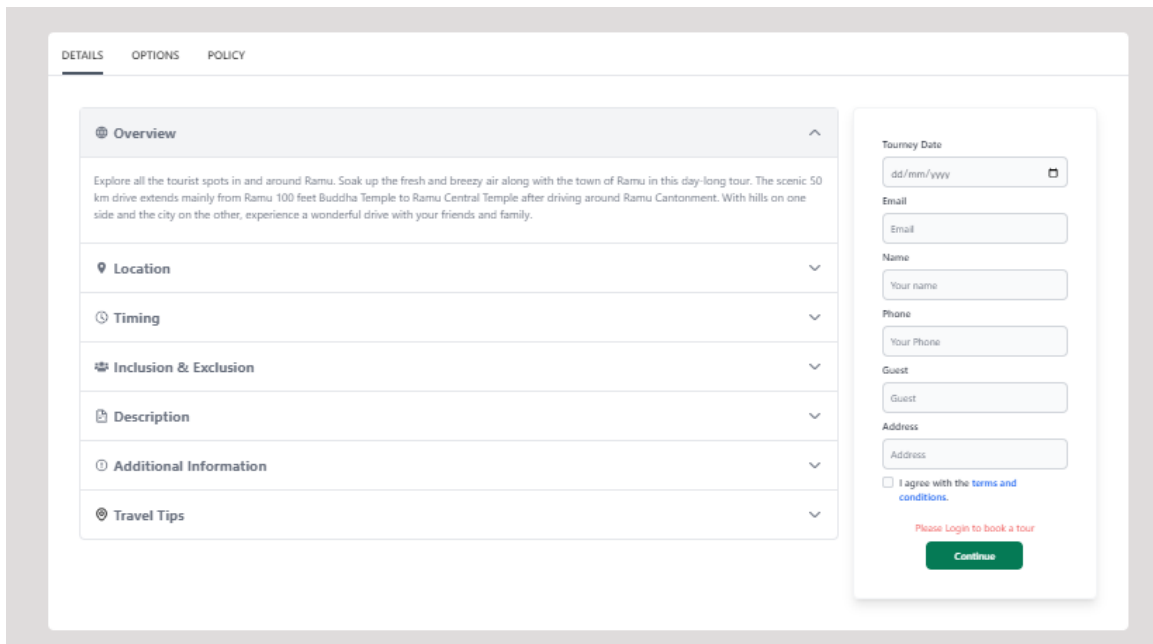


Figure 4.1.9: Tour Details

Details about the tour include a detailed description. Users can view maps of the tour's locations, travel times, and actual photos. also, a variety of possibilities from which to choose.

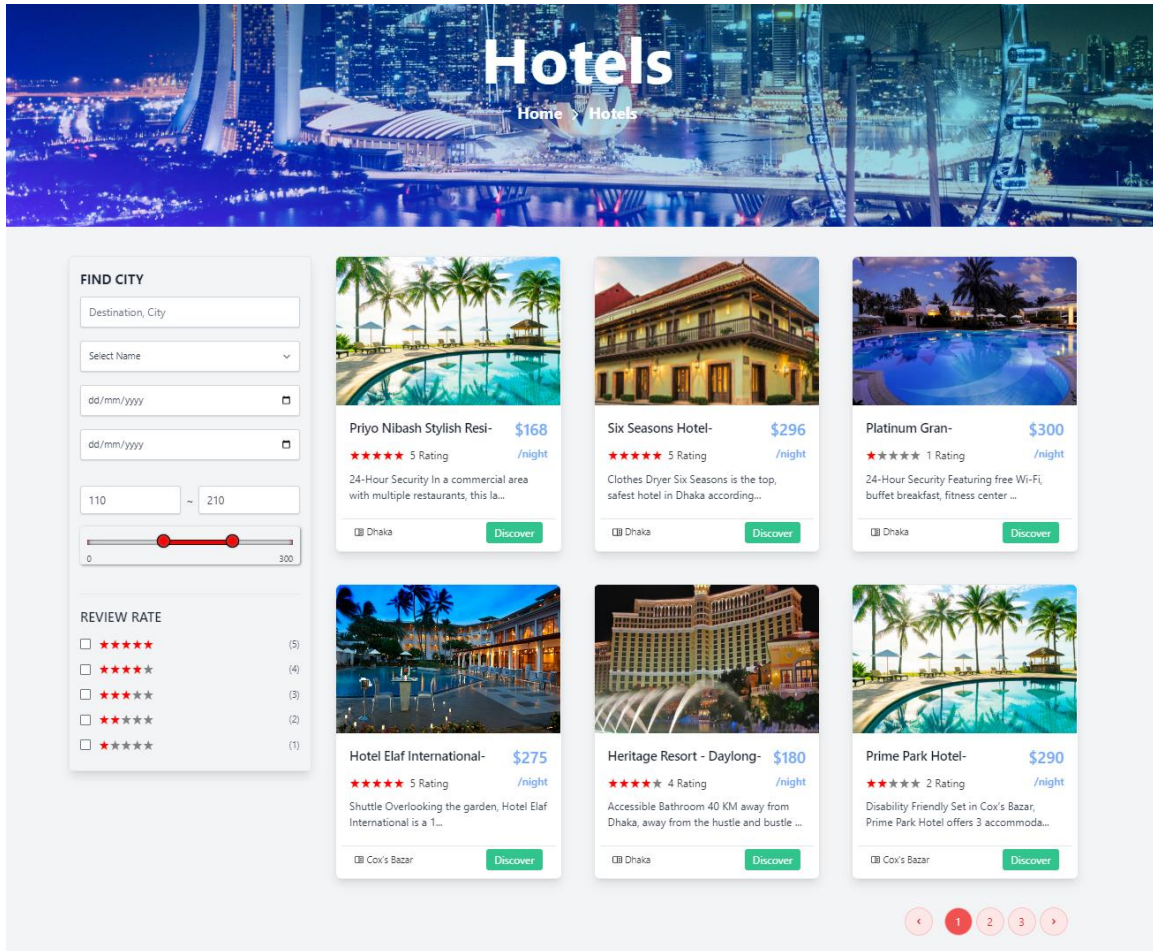


Figure 4.1.10: Hotel & Rooms full page

This is the full hotel page. Where all hotels are shown. On the left side, the user can find the city using the search method. Also, can search using review rates, and price ranges. If the admin wants, he can add new hotel or can delete hotel. Details on the hotel include a detailed synopsis. Users can view real images, room sizes, and maps of the hotels. also a variety of possibilities from which to choose.

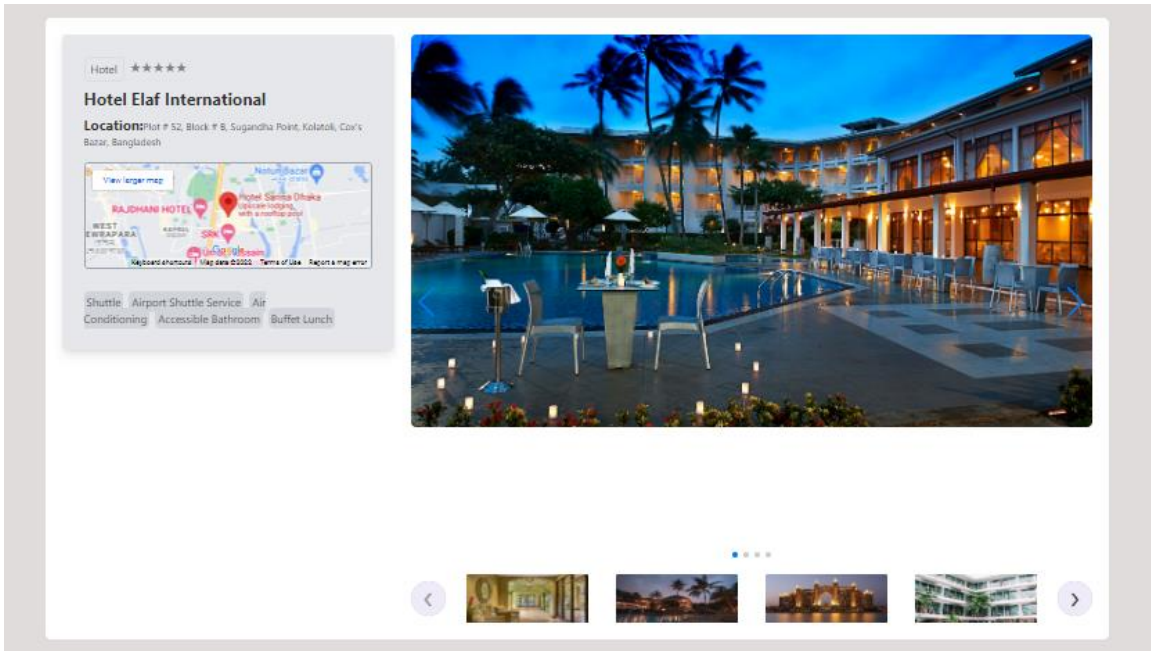


Figure 4.1.11: Hotel Details

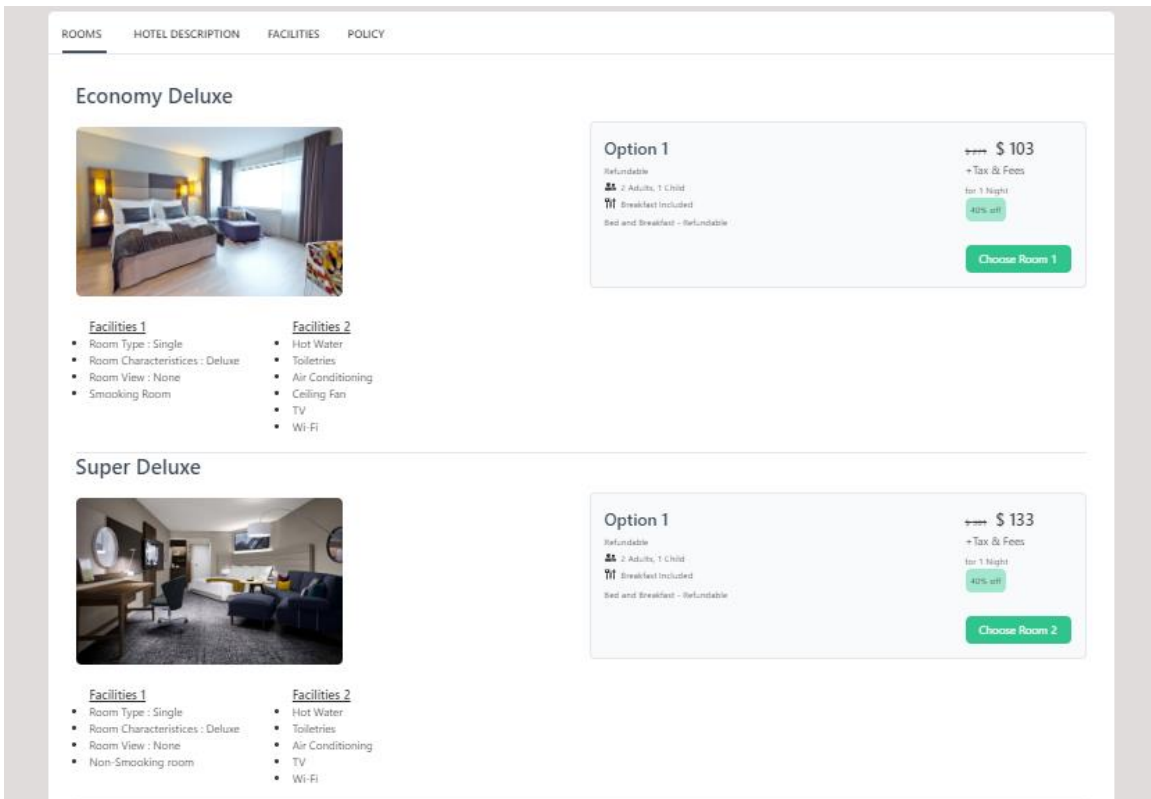


Figure 4.1.12: Hotel Details

4.1.1 Contact Us

Get in touch

Got a question about us? Are you interested in partnering with us? Have some suggestions or just want to say Hi? Just contact us. We are here to assist you.

+1 (808) 321 321
Info@imemtech.com

545, Street 11, Block F
Banani, Dhaka, Bangladesh

Enter Details

Full Name
Full Name

Email
example@email.com

+92-12-3456789

Message
Enter Your Message...

Submit

Figure 4.1.1.1: Contact Us

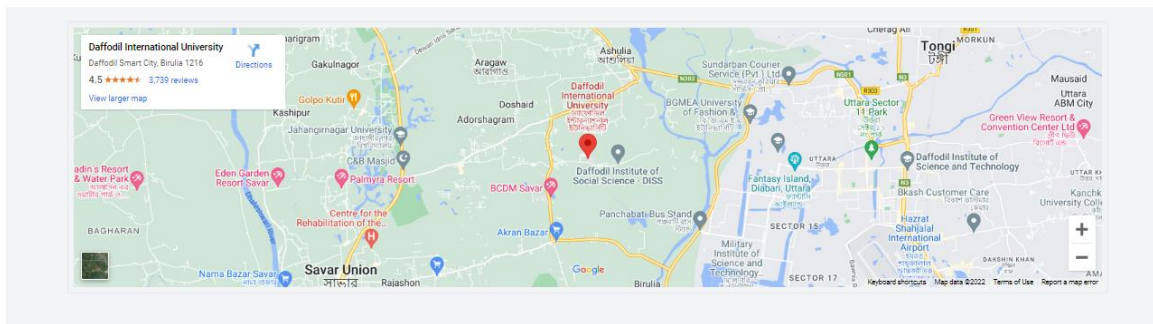


Figure 4.1.1.2: Our Location Map

Use the contact page to reach administrators for assistance with any technical issues.

4.1.2 Account

Sign In

or use your account

Enter Your Email

Enter Your Password

forgot Your Password?

SIGN IN

Hello, Friend!

Enter Your Personal Details and Start Journey With Us.

SIGN UP

Figure 4.1.2.1: Sign In

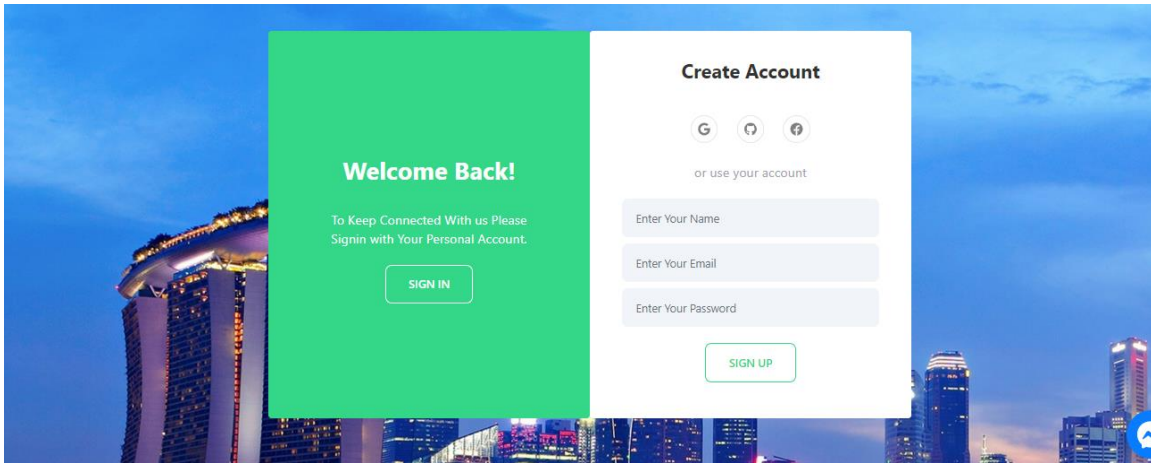


Figure 4.1.2.2: Registration

In the account section user and admin, both can log in. For new users' registration is mandatory. We use as an authentication system google, GitHub, Facebook login. After logging in users can book our hotels and tours.

4.1.3 User Dashboard

User profiles are the main focus of this section. The user's profile, which includes their name, email address, phone number, date of birth, gender, and address, can be edited on this page. can change the profile photo. Also, in the booking section users can see their current bookings, also paid bookings

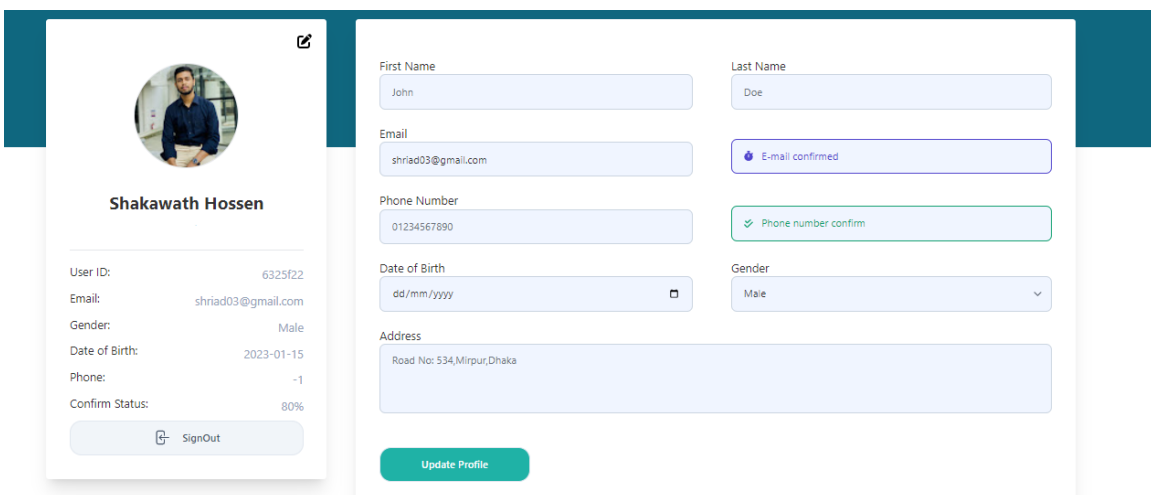


Figure 4.1.3.1: User Dashboard

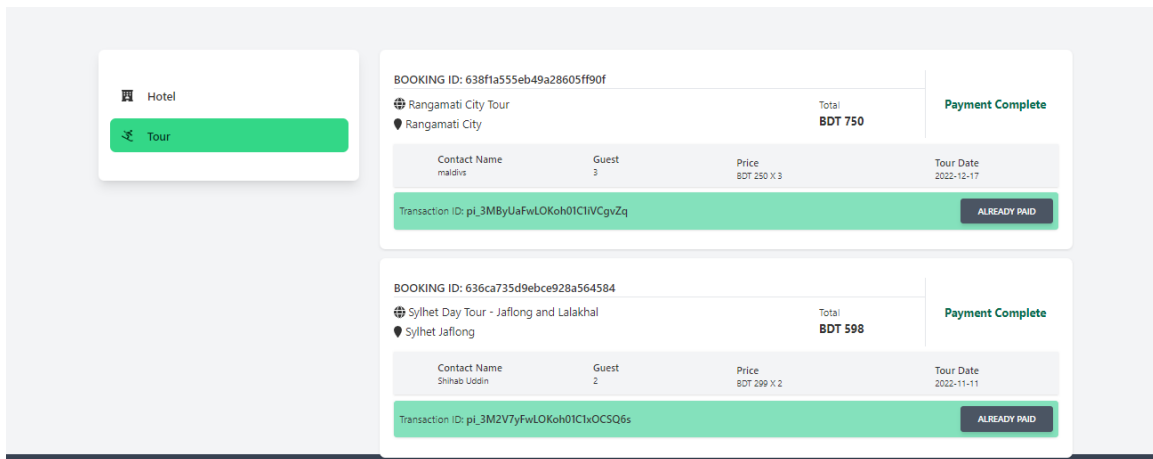


Figure 4.1.3.2: User Booking Dashboard

4.2 Back-end Design

Backend layout with dashboard for the admin panel. where an administrator has defined duties. They can check the booking list, manage users, add new hotels, and add new tours.

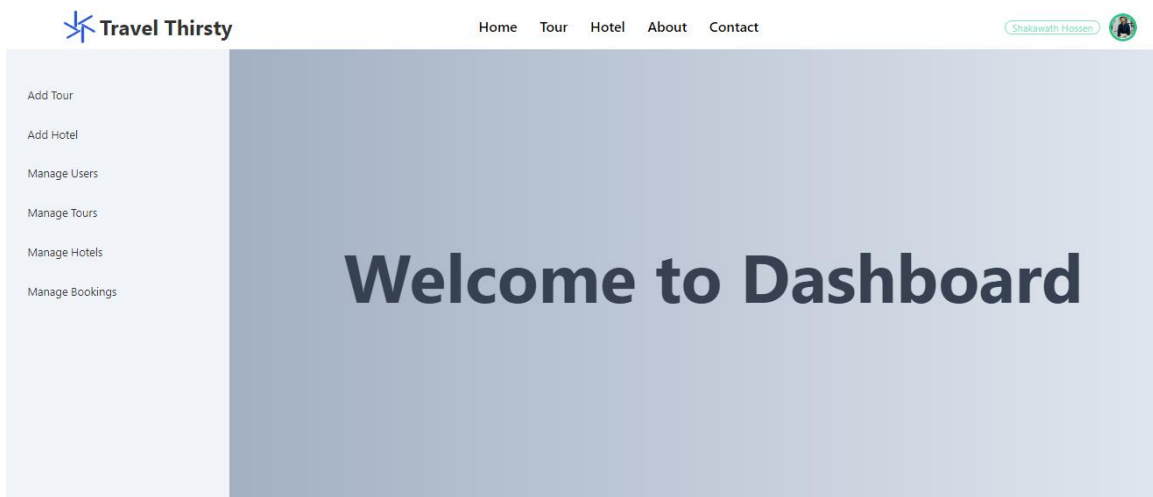


Figure 4.2.1: Admin Dashboard

Add a Tour Package

Package Name

Package Price

Package Image

 No file chosen

Address

City

Tour Description

Description One

Description Two

Figure 4.2.2: Add tour

Add a Hotel

Hotel Name <input type="text"/>	Country <input type="text"/>
Price <input type="text"/>	Hotel Image <input type="button" value="Choose File"/> No file chosen
Address <input type="text"/>	City <input type="text"/>
Hotel Description	
<input type="text" value="Description One"/>	
<input type="text" value="Description Two"/>	
<input type="button" value="Add Hotel"/>	

Figure 4.2.3: Add Hotel

Total Users: 14

INDEX	USERS	STATUS	ACTIONS
1	fake20676@gmail.com	MAKE ADMIN	REMOVE USER
2	rinku15-2371@diu.edu.bd	MAKE ADMIN	REMOVE USER
3	no@gmail.com	MAKE ADMIN	REMOVE USER
4	munna.aziz.hridoy@gmail.com	MAKE ADMIN	REMOVE USER
5	shakawathcseinfo19@gmail.com	MAKE ADMIN	REMOVE USER
6	imtiaz.azad98@gmail.com	MAKE ADMIN	REMOVE USER
7	osiur.rctg@gmail.com	MAKE ADMIN	REMOVE USER
8	clonestudio88@gmail.com	MAKE ADMIN	REMOVE USER
9	mubarakhossen1659@gmail.com	MAKE ADMIN	REMOVE USER
10	ashrafulislam23@gmail.com	MAKE ADMIN	REMOVE USER
11	sazzad15-2459@diu.edu.bd	MAKE ADMIN	REMOVE USER
12	shriad03@gmail.com	Admin	REMOVE ADMIN
13	ashrafulisiam8795948@gmail.com	MAKE ADMIN	REMOVE USER
14	moazzemhossainnahid@gmail.com	Admin	REMOVE ADMIN

Figure 4.2.4: Users Manage

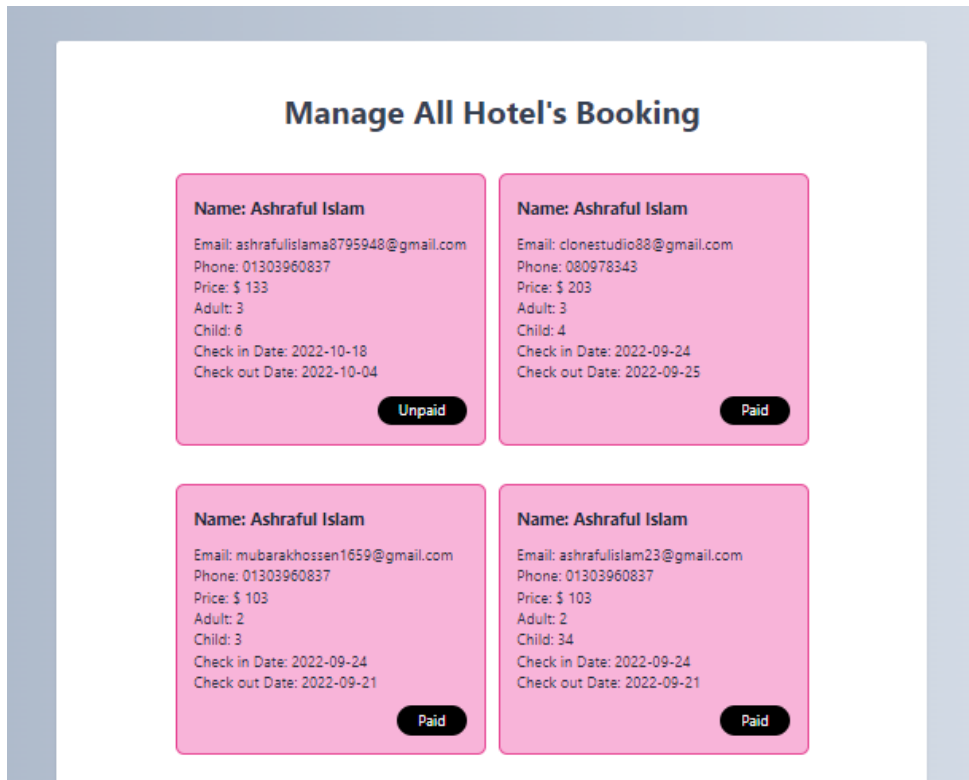


Figure 4.2.5: Manage All Hotel's Booking

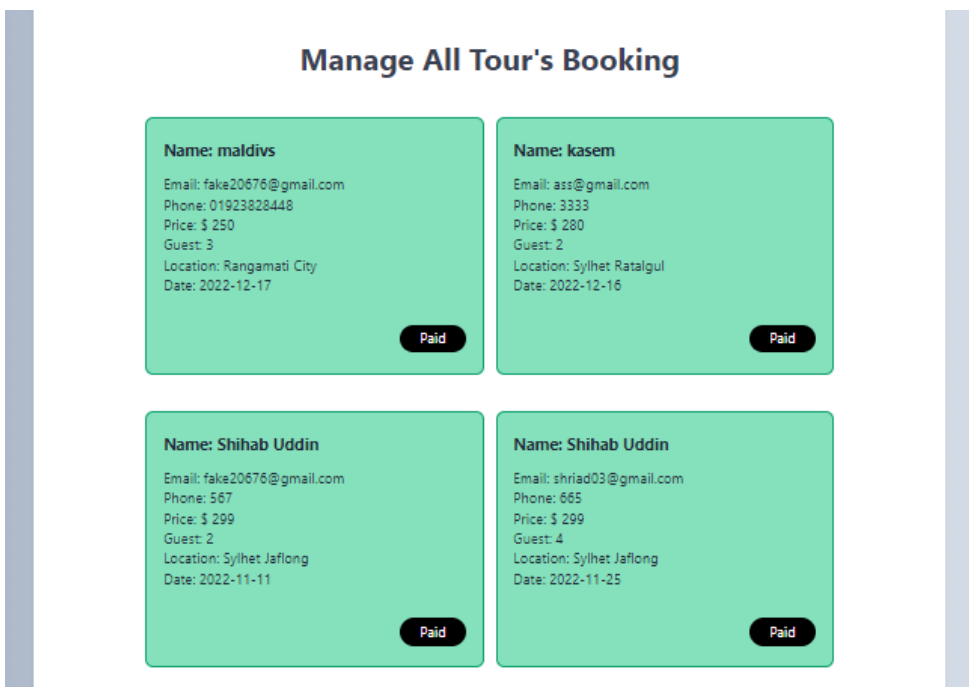


Figure 4.2.6: Manage All Tour's Booking

4.2.2 Authentication

To create a new account or login we use google, Facebook, and GitHub as authentication. Authentication is important cause we need to who placed the booking, and who registered on our website.

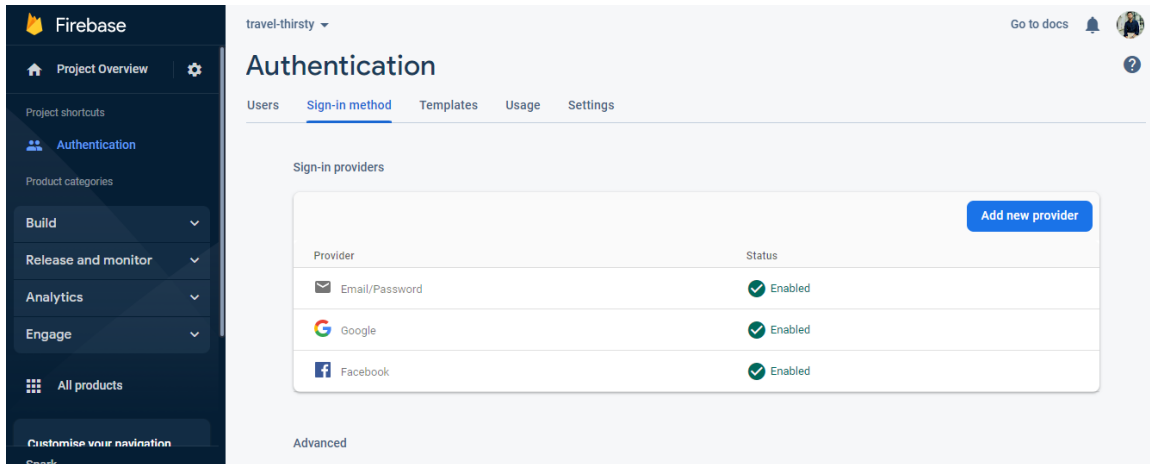


Figure 4.2.2.1: Firebase

4.3 Interaction Design and User Experience (UX)

The goal of UX design is to customize every aspect of a user's interaction with a product. Additionally, interaction design focuses on creating user-friendly interactions for when a user is actively using a product. To put it simply, UX Design includes Interaction Design. Sometimes, the terms "interaction design" and "user experience design" are used synonymously. That makes sense given the significant overlap between interaction design and user experience design. Since UX design is all about influencing the user experience of a product, interaction between the user and the product plays a significant role in that experience. However, user experience and interaction design are not the same thing.

4.4 Implementation Requirements

The web app deployment strategy might be advantageous to entrepreneurs and business owners who wish to redefine their online presence and increase their reach. It streamlines internet activities and increases the security of online presence.

- Agile development methodologies help in scaling to meet business demands and incorporating the most recent code changes.
- a comprehensive method of deployment, monitoring, and iteration for KPIs including responsiveness and speed
- a clean layout that can adjust to the size of a mobile device and excellent online apps
- while developing strategies to acquire a sizable financial advantage, cost-effectiveness
- Decide how a component of an app will operate using the UI's implementation of control buttons and toolbars.

CHAPTER 5

Implementation and Testing

5.1 Implementation of Database

- provide requirements

The first and most crucial step, regardless of the database type you're contemplating, is to determine your needs. For a simple purchase, this stage might only require a quick conversation with other staff members, but for a significant, mission-critical piece of software, it might require months of work.

- Create a short list

If you genuinely need a new database management system, the next step is to create a shortlist in order to narrow down the available options to a manageable number. When investing a lower amount of money, you might only need to inquire around and choose one software package to learn more about; however, when investing a greater amount, you'll need to conduct more study and develop a list of three to five software options.

- Think about your options

Analysis of the numerous databases on your shortlist is the final step. You wouldn't buy a car without taking it for a test drive, would you? Either test out each system independently or ask for vendor demos.

- Turn on your software

You still need to put your database into use, so you're not quite done. Depending on the type of system you've chosen, you might need to think about migrating data, or moving it from your old systems into your new ones. This is rarely a simple step and usually requires a lot of thought and preparation.

- Maintenance of your database

A system cannot maintain itself, especially one that contains data. Policies must be in place in order to keep clean, useful data and make it straightforward to obtain the information you need from the system. The best way to retain data's usefulness is to start doing it right away.

5.2 Implementation of Front-end Design

We attempt to implement our front-end design utilizing

- HTML
- CSS
- Vanilla JavaScript
- React in this project.
- Mongo DB is the database we utilize.
- Using Firebase, we authenticate users.

5.3 Testing Implementation

Implementation refers to the process of carrying out a predefined plan. Any technique should have a completed plan and clearly defined goals. Although its primary function is to automatically test web applications, it also has additional functions. Automating tedious web-based management activities is an option

5.4 Test Results and Reports

In this section, we assess our plan in order to determine the project's outcome. While testing the program, there are no technical problems. The system works wonderfully and there are no bugs to fix.

Table: 5.4.1 Test Results & Reports

SL No	Test	Expected Result	Result
01	Sign In	Registered People can sign in	Successful
02	Registration	Unregistered people can register	Successful
03	Log Out	Exit from the application	Successful
04	Booking	Users Can book their hotel and tour	Successful
05	Payment	Users can pay their payments	Successful

CHAPTER 6

Impact on Society, Environment and Sustainability

6.1 Impact on Society

A developing trend in the travel sector is social impact travel, which attempts to help local economies and host communities. The focus of this emerging movement is on respecting the local cultural, economic, and environmental settings while also learning about local cultures. The management of the tourism business for the long run depends on the social effects of tourism. Our system has a favorable social impact and promotes local and foreign enterprises. Users of the tourist reservation system can look up specific locations to visit. They are provided detailed instructions on how to get there as well as descriptions of any surrounding attractions. The user of this program can select a location to view from. The user of this program can choose a location and browse and acquire all available information about it.

6.2 Impact on Environment

I am aware of how the travel business contributes to environmental impacts as I think about how my employment at a web-based travel agency affects the environment. I'll concentrate on the following crucial areas to manage my agency's environmental impact:

Encourage people to travel sustainably by supporting eco-friendly lodging and activities and promoting the use of public transit.

Use digital tools and technology to replace paper-based interactions and transactions, such as web-based booking systems and e-tickets.

Engage with stakeholders, including customers, vendors, and business partners, to better understand their environmental concerns and incorporate them into the agency's planning and operations.

6.3 Ethical Aspect

Travel is one of the nicest things you can offer yourself. Unquestionably, one of the best ways to unwind is to travel. By taking you away from your regular routine, a vacation might simply make you happier. Traveling is one of the best things you can do for your mental health. Just be careful not to get too stressed out while using your means of transportation! With the help of this online resource, we are assisting travelers and highlighting the benefits of travel. In a discussion about the honor and wellbeing of visitors, we emphasize moral issues relating to items of value and differences, observation and consent, identity and secrecy. rather than making an effort to answer the difficulties brought up in this argument. We ask questions to inspire additional research on those issues. Numerous incidents that change a person's life can happen on a journey. Some people think that traveling is an excellent method to discover new cultures and customs. It's a chance to learn more about the world and view things from fresh angles. Travel can be a welcome distraction from the routine of daily life in addition to offering possibilities for cultural immersion, personal growth, and physical adventure. Vacations also give you the chance to catch up with loved ones, meet new people, and make lifelong memories. Finally, even if each person's perception of the worth of travel may vary, it is undeniable that many people gain advantages from their time spent traveling.

6.4 Sustainability Plan

We may contribute to sustainability in a number of ways as a web-based travel service, including:

Offer environmentally friendly lodging, carbon-neutral flights, and ethical excursions as examples of sustainable travel options.

Join forces with sustainable tourism organizations like the Rainforest Alliance or the Global Sustainable Tourism Council (GSTC).

Informing our consumers about environmentally friendly travel practices, such as conserving energy and water, observing local customs, and helping with environmental protection.

Utilize eco-friendly technologies and business procedures, such as energy-efficient servers and a reduction in paper use.

invest in carbon offset projects like renewable energy or forestry programs to offset the carbon emissions from our company's operations.

Our online travel business may work toward sustainability and help protect the environment for future generations by putting these principles into practice.

CHAPTER 7

Conclusion and Future Scope

7.1 Discussion and Conclusion

We are making an effort to create a web-based trip booking system since we are sure that it will catch the public's attention.

The major advantages of using an online reservation system are time savings, assistance in locating the greatest tourist sites, and ease of use. Our online platform is very helpful to you and has the ability to boost productivity and the reservation process.

Bangladesh is not an exception to the global trend of the tourism industry developing due to globalization and the development of information technology. Bangladesh's tourist sector has experienced tremendous growth in recent years, greatly boosting the nation's GDP. Therefore, it is now crucial to concentrate on the requirements of passengers. By sharing their travel experiences on social media, conducting their own online research, influencing the posts and stories on their social networks, and having access to straightforward reservation and booking systems, participants' preferences for digital technologies to choose travel products are influenced. However, obtaining travel knowledge from offline sources affects consumers' travel choices. The importance of online accessibility was discussed in relation to the survey participants' most recent travel experiences.

7.2 Scope for Further Developments

A web-based booking system for travel agencies has a lot of potential for growth. Integration with other systems, such as a customer relationship management (CRM) system or a financial management system, is one potential area for future growth in a web-based travel agency booking system. This might increase effectiveness and give users a more seamless experience. Another option is to create a mobile app version of the reservation system, enabling users to quickly book travel from their phones. The system could also be improved with features that cater the user experience to specific users based on their past reservations and preferences, such as personalization and suggestion tools.

The system could also be extended with more sophisticated search capabilities, greater security features including enhanced Integration with social media networks, encryption, and authentication are all included.

REFERENCES

- [1] [Online]. Available: <https://developer.mozilla.org/en-US/docs/Learn/CSS>. [Accessed: 23-Jan-2023].
- [2] S. Inoyatova, O. Khamidov, and A. Nigmonov, "Evaluation of online hotel booking services in Uzbekistan," in *International Conference on Eurasian Economies 2018*, 2018.
- [3] R. Law, A. Law, and E. Wai, "The impact of the internet on travel agencies in Hong Kong," *J. Travel Tour. Mark.*, vol. 11, no. 2–3, pp. 105–126, 2002.
- [4] "GoZayaan," *Gozayaan.com*. [Online]. Available: <https://www.gozayaan.com>. [Accessed: 23-Jan-2023].
- [5] R. V. Rus and A. L. Negrușă, "Online Hotel Booking Systems in Romania," *Procedia Econ. Finance*, vol. 15, pp. 1235–1242, 2014.
- [6] M. A. Halim, "Measuring tourists' intention to use digital platform in selecting travel products: A study on Bangladesh," *Asian J. Econ. Bus. Account.*, pp. 34–46, 2022.
- [7] goFLY Limited, "GoFLY limited," *goFLY Limited*, 18-Oct-2017. [Online]. Available: <https://goflybd.com>. [Accessed: 23-Jan-2023].
- [8] "ShareTrip™: Online travel agency in Bangladesh - hotels & flights," *sharetrip*. [Online]. Available: <https://sharetrip.net>. [Accessed: 23-Jan-2023].
- [9] L. Nasrolahi Vosta and M. R. Jalilvand, "Electronic trust-building for hotel websites: a social exchange theory perspective," *J. Islam. Mark.*, 2022.
- [10] M. S. M. Khan, S. Kashem, and M. M. Khan, "Development of a comparison based hotel and resort booking system in Bangladesh," *J. Softw. Eng. Appl.*, vol. 14, no. 05, pp. 133–149, 2021.
- [11] J. U. Ahmed, A. Talukdar, M. M. Khan, and A. Ahmed, "MiStay: Web-based hourly hotel accommodation service," *J. Inf. Technol. Teach. Cases*, vol. 12, no. 2, pp. 215–222, 2022.
- [12] "React," *Reactjs.org*. [Online]. Available: <https://reactjs.org>. [Accessed: 23-Jan-2023].

- [13] Z. Lu, J. Lu, and C. Zhang, "Website development and evaluation in the Chinese tourism industry," *Netcom*, vol. 16, no. 3, pp. 191–208, 2002.
- [14] C. Yeung, P.-F. Tung, and J. Yen, "A multi-agent based Tourism Kiosk on Internet," in *Proceedings of the Thirty-First Hawaii International Conference on System Sciences*, 2002.

webapp plag report

ORIGINALITY REPORT

23%	12%	2%	19%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	Submitted to Daffodil International University Student Paper	3%
2	dspace.daffodilvarsity.edu.bd:8080 Internet Source	3%
3	Submitted to University of Greenwich Student Paper	3%
4	Submitted to National School of Business Management NSBM, Sri Lanka Student Paper	3%
5	Submitted to Adventist University of Central Africa Student Paper	1%
6	Submitted to Colorado Technical University Online Student Paper	1%
7	Submitted to Asia Pacific International College Student Paper	1%
8	www.nten.org Internet Source	1%

9	Submitted to Swinburne University of Technology Student Paper	1 %
10	Submitted to Wittenborg University Student Paper	1 %
11	Submitted to Wawasan Open University Student Paper	1 %
12	Submitted to MCC Training Institute Student Paper	1 %
13	Submitted to University of Northampton Student Paper	1 %
14	Submitted to Abu Dhabi University Student Paper	<1 %
15	Submitted to University of Leicester Student Paper	<1 %
16	Submitted to University of Northumbria at Newcastle Student Paper	<1 %
17	Submitted to Southern Luzon State University Student Paper	<1 %
18	Submitted to Universiti Tunku Abdul Rahman Student Paper	<1 %
19	www.scirp.org Internet Source	<1 %

20	Submitted to Visvesvaraya Technological University, Belagavi Student Paper	<1 %
21	Submitted to De Montfort University Student Paper	<1 %
22	Submitted to International School of Management and Technology Student Paper	<1 %
23	Submitted to University of Bolton Student Paper	<1 %
24	patents.google.com Internet Source	<1 %
25	Submitted to East Berkshire College Student Paper	<1 %
26	ece.northsouth.edu Internet Source	<1 %
27	www.cjaynafisonzinternational.org Internet Source	<1 %
28	cls.maranatha.edu Internet Source	<1 %
29	scholarworks.lib.csusb.edu Internet Source	<1 %
30	1library.net Internet Source	<1 %