

EXPLORERS BD- A WEB APPLICATION FOR TRAVEL GUIDE

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

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APPROVAL

This Project titled “**Explorers BD- A Web Application for Travel Guide**”, submitted by B M Sajid Hossain, ID No: 191-15-2636 and Md. Shihab Parves Chanchol, ID No: 191-15-2676 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 23.01.2023.

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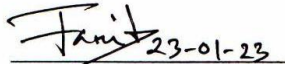


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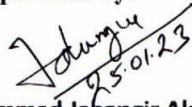
We hereby declare that this project has been done by us under the supervision of **Fatema Tuj Johora** Sr. Lecturer, **Department of CSE** Daffodil International University. It also declares that neither this project nor any part of this has been submitted anywhere else for award of any degree.

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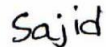
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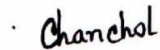


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ABSTRACT

As Bangladesh has so many amazing places to visit there are a large number of people who travels a lot and having a good idea about the place is always a plus point so this project seeks to develop a traveling website that provides users with an easy way to plan their next trip. It will allow users to search for destinations all around Bangladesh and find out about the nearest available accommodations in that particular place. It has an experience-sharing feature that will help other users to know more in detail about many other places which might help travelers to plan their next trip. It will also provide reviews from other travelers. The website will be designed to be user-friendly, with simple navigation and intuitive search capabilities. In addition, it will be completely mobile responsive and optimized for mobile devices, giving users the flexibility to make their travel plans anytime and anywhere. The report details the development process from concept to implementation, including the architecture of the web application, user interface design, and the technologies used. The goal of the website is to provide a seamless user experience for customers to easily choose their travel destinations and book their travel service which will make traveling easier and more enjoyable for everyone.

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CHAPTER-1

Introduction

1.1 Introduction

The life we lead is full of responsibilities where stress and anxiety are always a part of it. The daily routine of life can sometimes have some negative on our health and mostly our mind. So, an urgent need of breaking the chain of daily routine can be felt sometimes and there are no better ways than traveling somewhere to get some fresh air and to explore some places which can boost the confidence in a person and bring inner peace. Doesn't matter whether it's a solo trip or a trip with family or friends, the experience is what matters the most. So, we want to build a responsive web application based on the scenario of traveling places in Bangladesh where one can visit. In almost all of the Districts of Bangladesh, there are some places where people can visit if they want to. On our website, we will provide the details of those places along with photographs as well as a map view of that place for the user's convenience, so that if someone wants to go to a location then they can learn about that place before going there by just scrolling through our website. And for the user's convenience, we have the nearest accommodations of each place listed to those places. Also, people who have already visited a place can give reviews/feedback about a particular place on our website, and then others can go through those feedback to choose their next spot to travel to. On our website users can also share their travel experiences as well as go through other users' experiences to know more about the journey procedure and a real-life experience of visiting a place which can motivate them to visit a place. If they want, they can share their comments about other users' experiences to their posts. We have a book now page where one can find all our listed hotels and resorts along with the stay cost, address, and a map view as well. If they want to book a hotel then they can send a booking request to us. Some parts of our website will be only available to authenticated users for that we have authentication systems in our website.

1.2 Motivation

As the population of the world continues to grow day by day, the number of travelers is also increasing. Sometimes people want to travel around the country and a lot of them don't have proper knowledge about many places in Bangladesh. Many of them are also confused sometimes whether to visit a particular place or not and also worried about the accommodations during the trip. So, we strived to create an online platform where travelers can get information like tourist places, hotels, routes, transportation and more. We have a plan to expand this website more and make it a reliable platform. All of these are to make travel easier and more convenient in terms of money and time. Even if someone doesn't want to travel, they just can learn about a lot of amazing places in Bangladesh through our website.

1.3 Objective

The main objective of our website is to create a platform that allows users to plan and book their travel easily and conveniently. This includes destination details, images gallery, experiences, booking hotels. Our website also includes reviews and other users' comments. Other than these we have some potential objectives which are:

- We aim to generate revenue from advertising and other monetization's as well as through website traffics.
- We want to establish our website as a trusted and respected brand in the industry, with a with a strong reputation for quality and customer services.
- We want to build a loyal customer base by providing an excellent user experience and consistently meeting the need of our customers.

1.4 Expected Outcome

- Responsive design for all size screens.
- Smooth and user-friendly functionality of the website with decent UI.
- Possibility to cover almost all of the main places of Bangladesh.
- Also, details of nearest hotels of those particular places (if there are any).

1.5 Project Management and Finance

This project took around a year to be built. It had a few phases. The phase of first 8 months, we tried to learn all the necessary tools and skills needed to build this project along with research related to the project. And we've learned almost all of them but still there were some which we learned during the design and development phase of the project. Then the design phase of this project took more than a month to complete. After the design phase we started the development phase which took more than around two months to be completed. And we've managed the whole project in a disciplined way. And to complete this project no financial expenses were incurred, because most of the resources were open sources and free to use. Although some of the resources we needed, required payment but we used either an alternative or the free trial version. Because we did not have any payment facilities available.

1.6 Report Layout

Describes the full implementation of the project "Explorers BD" in this project report.

Chapter 1: The introduction of the project, motivation, objectives, expected outcome, project management and finance along with project layout.

Chapter 2: This chapter shows the background of the project.

Chapter 3: In this chapter, requirement analysis, use case model, ER diagram and design requirements are given.

Chapter 4: Frontend and Backend design of this project as well as interaction design and UX and implementation requirements are described in this chapter.

Chapter 5: The implementation of the database along with the implementation of frontend design and implementation of user interaction and testing are included in this chapter.

Chapter 6: The sustainability of our website along with the impact of our website on society and environment are provided in this chapter.

Chapter 7: Discussion and conclusion as well as future scope of this project are presented in this chapter.

CHAPTER-2

Background

2.1 Preliminaries/Terminologies

we have used React.js and Firebase for our project as main front-end and back-end along with SASS which is a CSS preprocessor that helped to style our application according to the design. React.js is an extremely powerful framework and library of JavaScript which is open source and free to use. It is very lightweight and easy to code to develop web applications that will have interactive user interfaces. Firebase is a google-backed application development software that enables developers to develop web applications. We have used firebase to integrate authentication with our system along with firebase database called firestore and the storage services. Firestore database stores data in the database as JSON like format and it has real time database too.

2.2 Related Works

Nowadays people travels so much and so frequently that there have been some websites that are helpful for trips and destinations. Our project is also built on the basis of the ideas of some websites which are, “<https://hurraayy.com/>, <https://adarbepari.com/>, <https://pathfriend-bd.com/>,” We have also collected the information from many other websites as well. Which helped us in terms of design and development.

2.3 Comparative Studies

hurraayy.com generally provides adventures, stays and experiences. They have different types of hotels, apartments, private properties (hosted by the owner) along with some hosted tour packages to different destinations. Although they don't specifically provide the details of the destinations around Bangladesh. [1]. adarbepary.com has variety of options available in their website, from destination details of the world to the experiences of other people. They are not limited to just Bangladesh. They also have events always going on all the time of different places. [2]. pathfriend-bd.com also includes same types of information but in a different way. They have different trip packages to many different places around Bangladesh. User can choose from many different trip packages like a single day trip to trips that expands multiple days. They don't have any experience sharing feature also there are no hotel/resort listed to the website. [3]

2.4 Scope of the Problem

Defining the scope of a problem is important because it helps to clarify what our website is intended to do and what it is not intended to do. This helps us to focus on the development efforts and ensure that the final solution meets the needs of the users and stakeholders. So, the scope of the problem could be,

- Designing a website that provides information on travel destinations, activities, and services.
- Creating a user-friendly interface with easy navigation.
- The types of devices that our website is going to be run of used (e.g., desktop computers, tablets, mobile devices)
- The specific features that and functionality that our website must provide (e.g., search and booking of hotels, users accounts, customer support)
- The performance and security requirements of our website (e.g., uptime, response time, data protection).

2.5 Challenges

To build this application we have learned web development from the scratch. We used to build small project for practices and learning purposes but this project was quite big and we had to face a lot of difficulties and challenges during the whole project. Starting from the design process till the end of development. First of all, creating a visually appearing but easy to navigate design was challenging, as the website should be attractive. As the homepage is the first view of the website and from there the user will have the first impression toward the whole application, so designing the homepage was so challenging that we had to redesign the homepage few times. And for the design of book now in the book request send part it was difficult to put every component in proper place. Another challenge was to create the design for mobile responsiveness. And during the development phase of this project there were some challenges as we were fairly new to React JS. Sometimes the output of the coding did not give the intended results which took more of our time to investigate the problem and fix it which we did for some of the problems. From the beginning of our project, we had a plan to integrate google map in our website but because of the google console billing issue we were not able get the api key and this was one of the major setbacks for us but we tried to overcome this issue with an alternative called Map box. With the help of Map box, we implemented the maps but not as we thought we would have done with google map. We faced something regarding to the mapgl of Map box that led us to remove the map component from the homepage, it was a package error which was occurring during the deployment of the project, stopping it from being built. And finally, the most critical challenge was to make the whole web application responsive for mobile devices.

CHAPTER-3

Requirement Specification

3.1 Requirement Collection and Analysis

A very important part of every project is requirement collection and analysis. There are two types of requirements such as functional requirements and non-functional requirements. Functional requirements specify the specific functions and features that a system must be able to perform. And non-functional requirements are requirements that specify the performance, security and other non-functional aspects of the website.

Functional requirements:

- The website should have signup and login options for users and admins.
- The website should have login with google and facebook options.
- The website should have search functionality for user to search for specific destinations.
- The website should have image upload options for admin.
- The website should have options for users to add, edit and delete experiences.
- The website should be responsive for mobile devices including smartphones and tablets.

Non-functional requirements:

- The website must be able to handle a large number of concurrent users without any significant delays or downtime.
- The website must be able to handle large amounts of data.
- The website must be easy to navigate with clear and intuitive layout and design.
- The website must be able to easily add new features and functionality without requiring significant rework or refactoring.
- The website needs to be maintained to fix post deployment issues and bugs.

Hardware and software requirements:

Hardware requirements:

- i. Intel core i3
- ii. 8GB ram
- iii. 256GB solid state drive
- iv. 512GB hard disk drive
- v. Monitor
- vi. Internet Connection

Software requirements:

- Visual Studio Code should be installed for IDE. Frontend and Backend both can work together in VS Code.
- Node.js, JavaScript code is executed outside of the browser using the open source, cross platform.
- Git should be installed for hosting the code and controlling the versions on GitHub. As well as for deploying the web application to a hosting platform.
- Adobe xd, Figma, zeplin, figJam for designing purposes.

3.2 Use Case Modeling and Description

In the figure 1.1 and 1.2 we have shown the use case model of our web application. It is an effective way for developers, stakeholders and users. The figure 1.1 shows the use case model of a user and the figure 1.2 shows the use case model of an admin. As an admin is a also a user so all the use cases a user have, an admin has too. But an admin has some extra use cases which a user doesn't have.

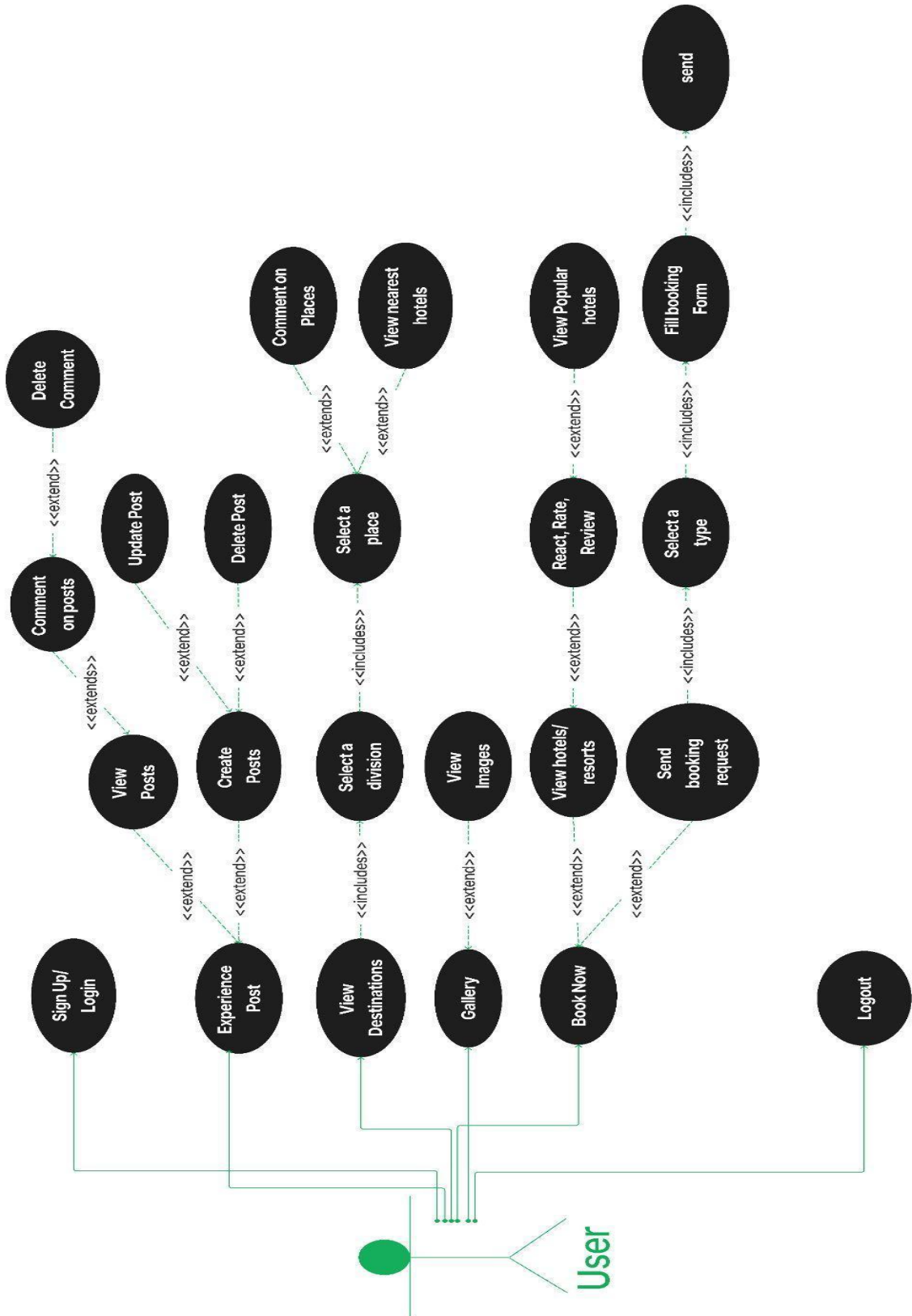


Figure 1.1: Use case model (user)

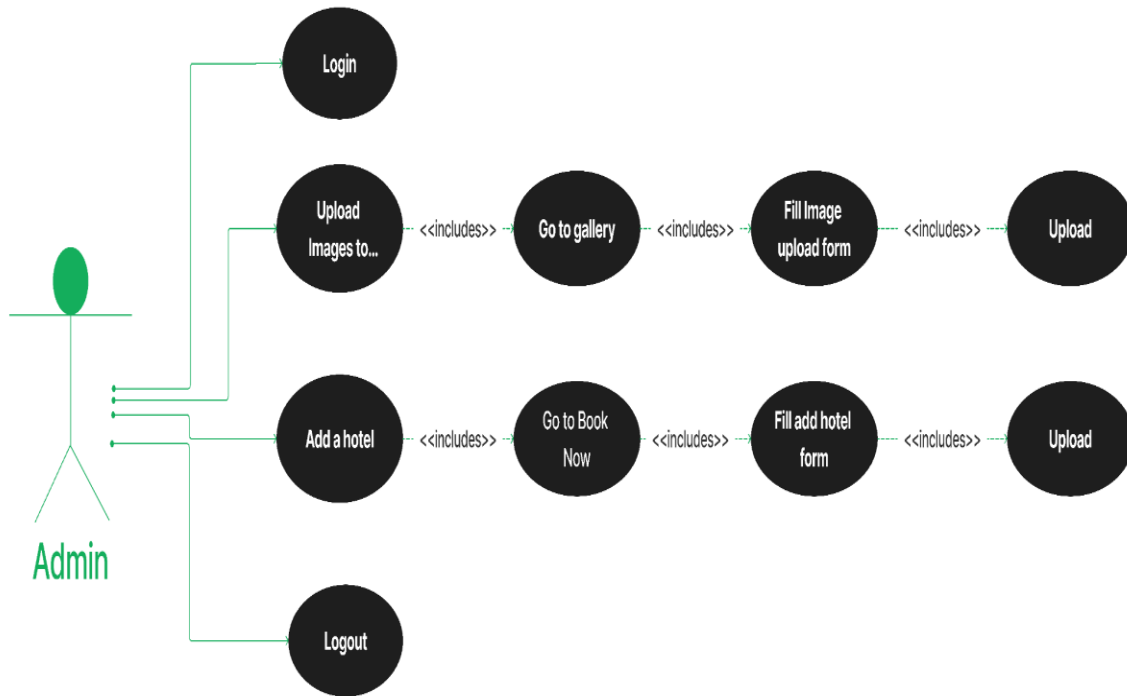


Figure 1.2: Use case model (Admin)\

Use Case Description for Login

Use Case No 1

Use Case Name. Login

Actor. User.

Description. Allowing Users to login to the system.

Use Case Description for Viewing Gallery Images

Use Case No 2

Use Case Name. View Gallery Images

Actor. User.

Description. Allowing User to view any image of the gallery.
Clicking on an image will open that image in a modal view.

Use Case Description for Viewing Destinations

Use Case No 3

Use Case Name. View Destinations

Actor. User.

Description. Allowing User to view and get information about a destination place.
User can also comment on a place.

Use Case Description for Managing Experience Post.

Use Case No 4

Use Case Name. Manage Experience Post

Actor. User.

Description. Allowing User to create post.
User can create, update, and delete his post.

Use Case Description for Comment on Experience Post

Use Case No 5

Use Case Name. Comment on Experience Post

Actor. User.

Description. Allowing User to comment on any experience posts.
User can also delete his comments.

Use Case Description for Viewing a hotel

Use Case No 6

Use Case Name. View a Hotel

Actor. User.

Description. Allowing User to view the available hotels along with all the information available to that hotel/resort as well as the list of popular hotels.

User can also react, rate and review a hotel.

Use Case Description for Sending a Booking request

Use Case No 7

Use Case Name. Send Booking Request

Actor. User.

Description. Allowing User to sending a booking request by filling up the form in the hotel details page of our website.

User can also comment on a place.

Use Case Description for Logout

Use Case No 5

Use Case Name. Logout

Actor. User.

Description. Allowing User to logout of the system by clicking on the logout option from the navbar menu.

3.3 Logical Data Model

In the figure 3.3 an entity relationship model is shown of our total project. Which is a graphical representation of relationships between entities in our firestore database. Where all the entities are represented in a box, relationships are represented as lines connecting the boxes with a diamond shaped box which presents what is the relation.

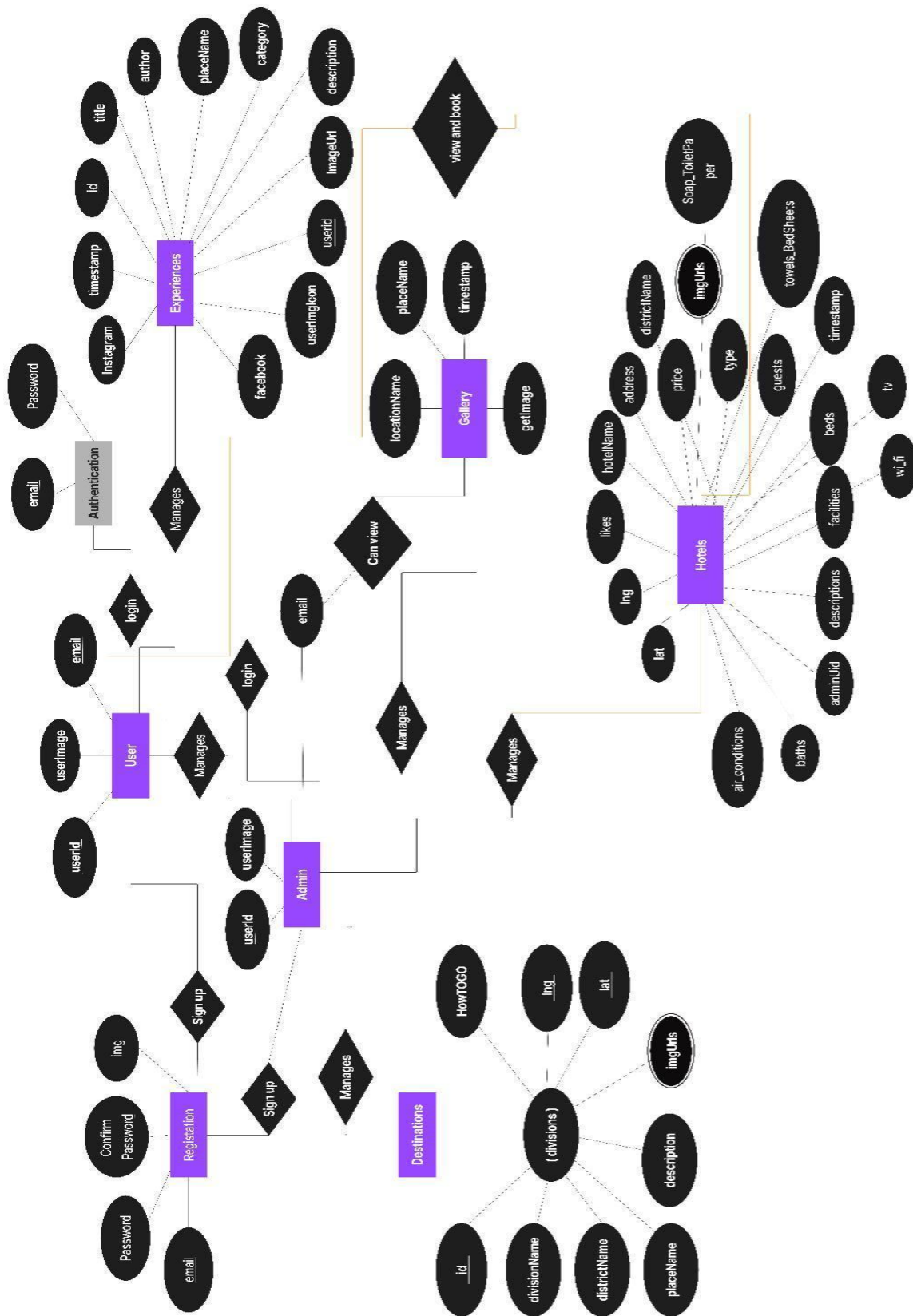


Figure 2.1: ER diagram

3.4 Design Requirements

User-friendliness: The website should be easy to navigate and use, with a clean and intuitive design that allows users to quickly find destinations and book hotels or resorts they are looking for.

Responsive design: The website should be responsive and work well on a variety of devices, including desktop computers, laptops, tablets, and smartphones.

Clear and concise content: The website should have clear and concise content that is easy for users to understand and that provides all the necessary information about the travel destinations and services being offered.

Search functionality: The website should have a powerful search function that allows users to easily find the travel destinations and services they are looking for based on their specific criteria.

Integration with booking systems: The website should be integrated with a booking system that allows users to easily book travel services such as hotels or resorts they are interested in.

Accessibility: The website should be accessible to users with disabilities and comply with relevant accessibility standards.

CHAPTER-4

Design Specification

4.1 Front-end and Back-end Design

We've written presentational HTML, CSS, and JavaScript codes necessary to create a user interface, which is the main step in the front-end design process. We must employ frontend to create user interfaces for users to interact with the application and its available functionalities. It must employ similar or matching typefaces, colors, and graphics to make it simple for customers to connect a company's website with their products elsewhere.

Our project uses React as a primary development framework. And a document-oriented database management system called Firebase allows us to store data there in JSON format. Facebook developed the JavaScript UI creation library ReactJS. In particular, it makes it simpler to create sizable applications using dynamic data. Without realizing it, you may have already used the Facebook App, which uses React JS in part. It is very lightweight and opens the door for developers to implement things in an efficient way.

A JavaScript runtime environment called Node.js is also needed which makes it simple to develop network applications. The foundation of Node's platform is an event-driven architecture with a built-in HTTP server framework for hosting web applications and non-blocking I/O to reduce overhead.

For authentication purposes we've used firebase as a backend, where there are users with unique ids, emails and passwords. For a number of sections, we've used the firestore database to store data in JSON format as well as for images we have used firebase storage and we linked URLs of those images to the firestore database.

4.2 Interaction Design and UX

We have done our interaction design and UX design, at the beginning period of our project to map the functionalities and interactions of different components we have built some UX processes like user flow maps, information architecture, wireframe (low fidelity), UI design, prototyping and testing.

User Flow Map:

User flow is a diagram that illustrates the steps a user takes to complete a specific task or achieve a goal on our website. The user flow map we've shown in the figure 3.1, is a visual representation of the different path that a user can take through a product, from the entry point to the completion of a task. We have created the user flow to ease the process of UX design.

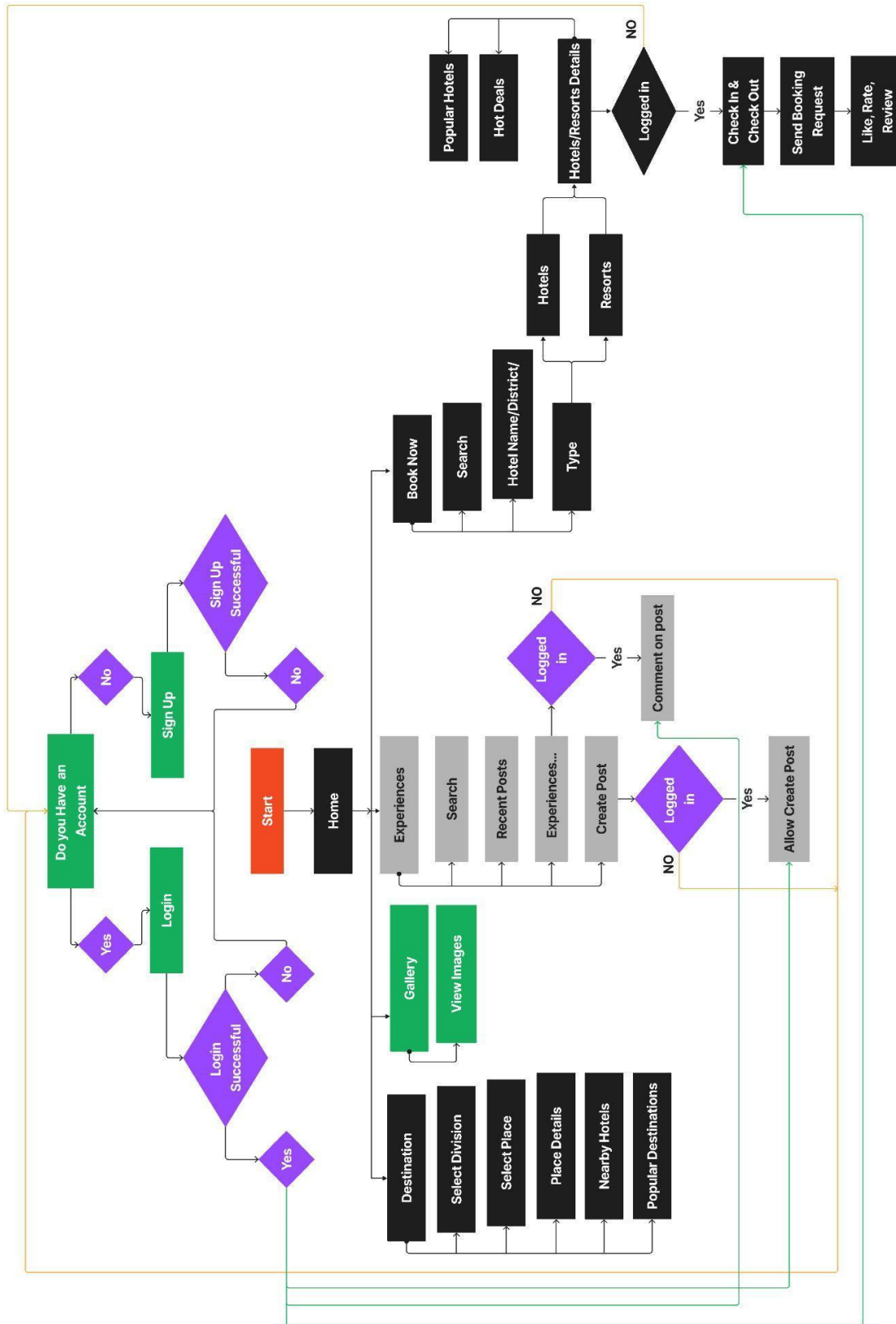


Figure 3.1: User Flow Map

Information Architecture:

We have done information architecture which is shown in the figure 4.1 to create a logical and intuitive structure for the content of our website, making it easy for users to locate information they need and navigate to different areas of the website.



Figure 4.1: Information Architecture

Wireframe (Low Fidelity):

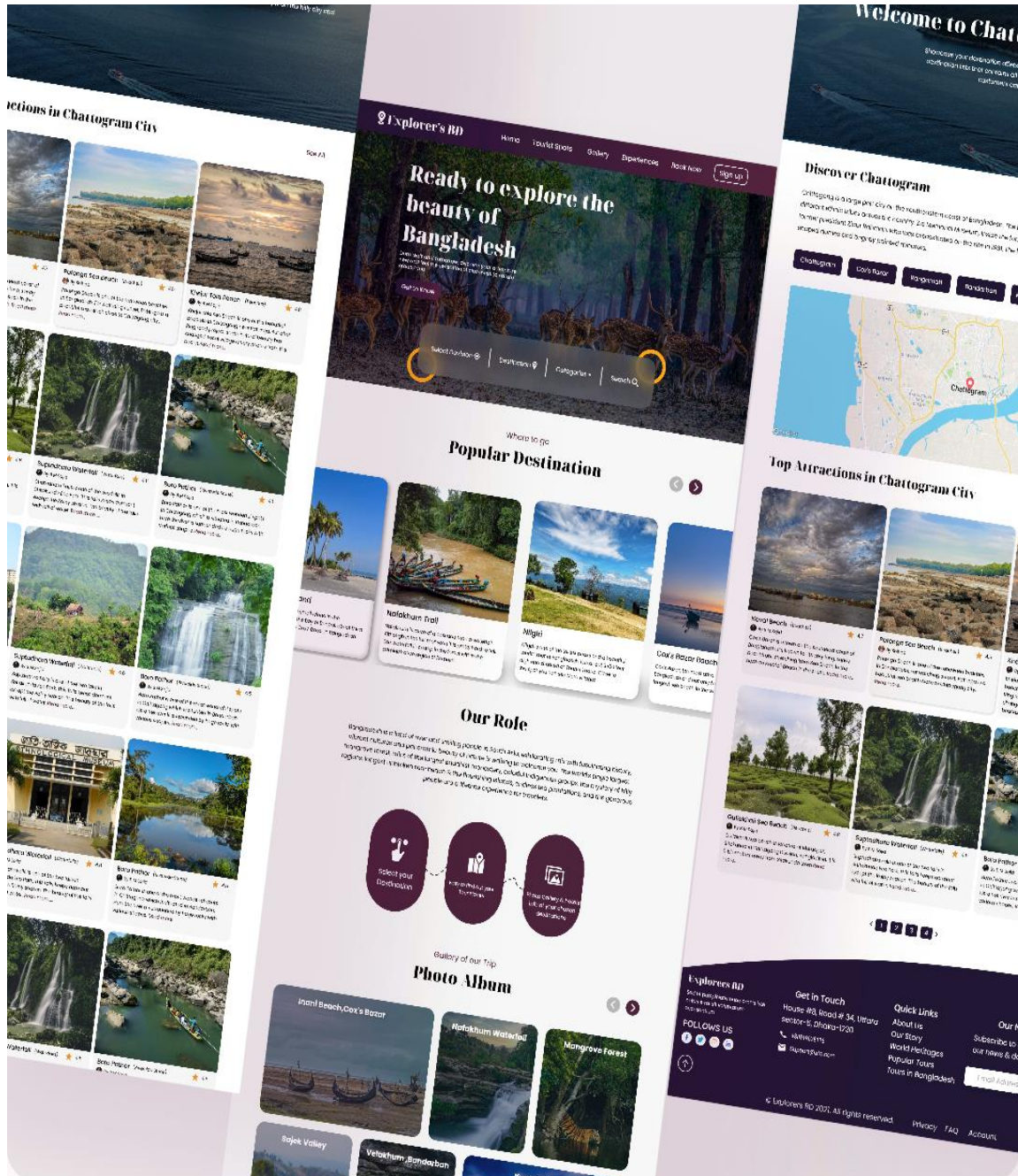
At the early stages of our project for the design we have done low fidelity wireframing for the purpose of having a visual representation of the layout and the structure of our website which is shown in the figure 5.1. It shows elements of on a page such as texts, images, and buttons. We used pen and paper and it was quick and easy to do.



Figure 5.1 Wireframe (Low Fidelity)

UI Design

We have designed the user interface for the purpose of having a base for implementing the front-end part of the website. It includes creating the layout, visual design, and interactivity of our website. In figure 6.1, we have shown two images for two different components.



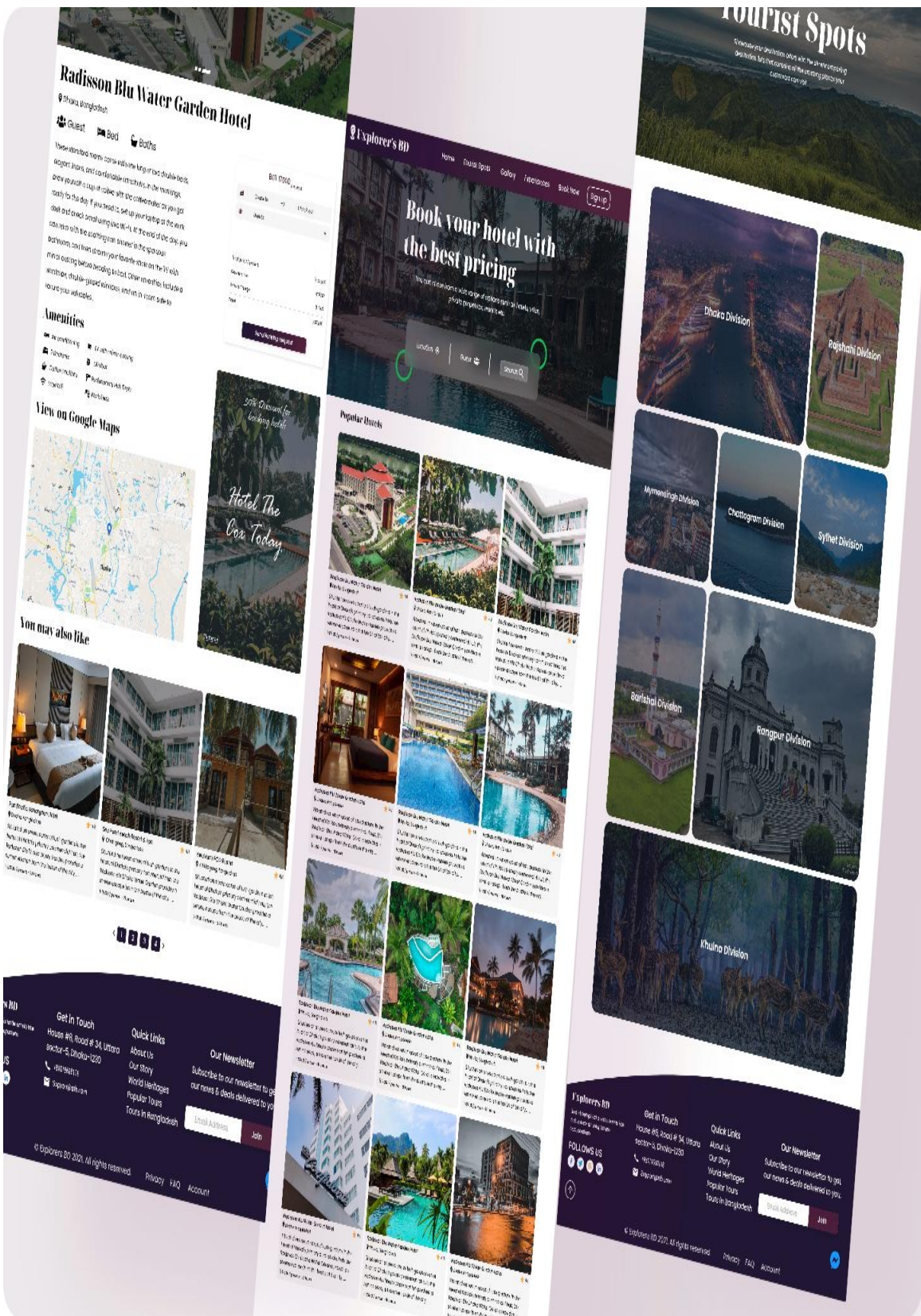


Figure 6.1 UI Design

Prototyping

We have created a prototype of our website which is shown in the figure 7.1, in order to test and refine its design. It is a very useful tool for both the designer and developers to explore and understand the requirements and constraints of a website.

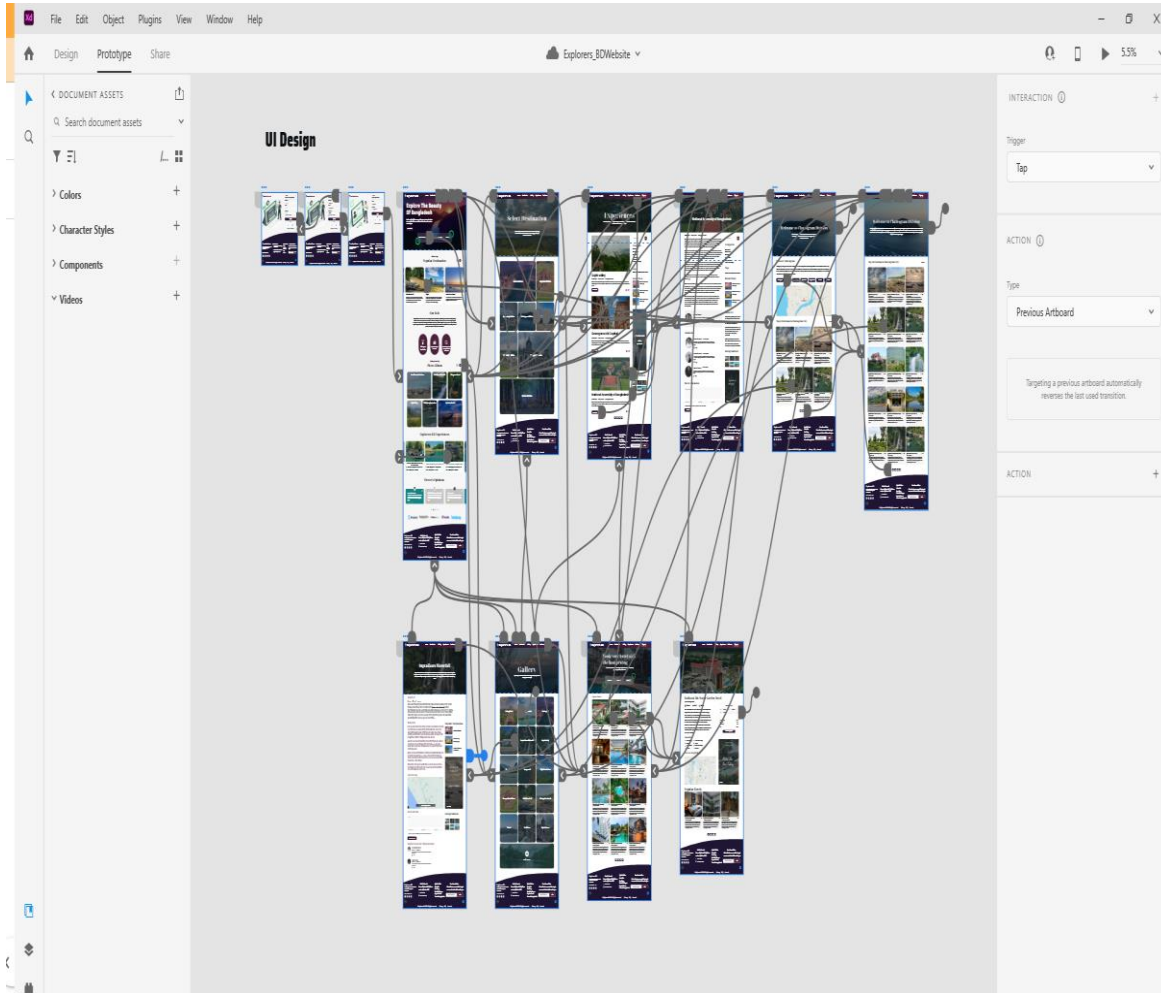


Figure 7.1 Prototyping

4.3 Implementation Requirements

Requirements that were needed for us in order to implement the project are:

- Gathering and documenting requirements: We have analyzed the requirements such as functional and non-functional requirements for the website and what it is needed to have to meet the need of all the requirements.
- Designing the system architecture: This involves designing the overall structure and components of the system, including the database, user interface, and integration with external systems. And we have done all this before implementing the system.
- Implementing the system: This involves writing the code and building the various components of the system according to the design. This involves working with programming languages. We have implemented our website with react js and firebase.
- Testing the system: After the implementation we have tested our system to see if all the requirements we had, meets the final result or not.
- Deploying the system: After all the testing and checking for requirements we have deployed our system in a hosting platform named vercel.
- Maintenance and updates: After the deployment of our system, we have it under maintenance and we have also pushed new features, updated existing components and fixed existing bugs to improve overall system performance.

CHAPTER-5

Implementation and Testing

5.1 Implementation of Database

We have chosen firebase to use as a database for our website because it is a very popular mobile and web application development platform. We have all our data stored in firebase firestore in JSON format. Firebase uses a real time database system that means that any changes to the data are automatically synced across all connected clients in real time. It was useful for our website as we have like, comment, rating feature in our website. It can also handle a large amount of data and high level of concurrency, which made it suitable for our scaled website.

Data in Firestore Database:

Users Image Data:

While signing up to our website, the image a user uploads is stored in userImages collection of the firestore database. In the figure 8.1 it shows with a full view of the database of our website.

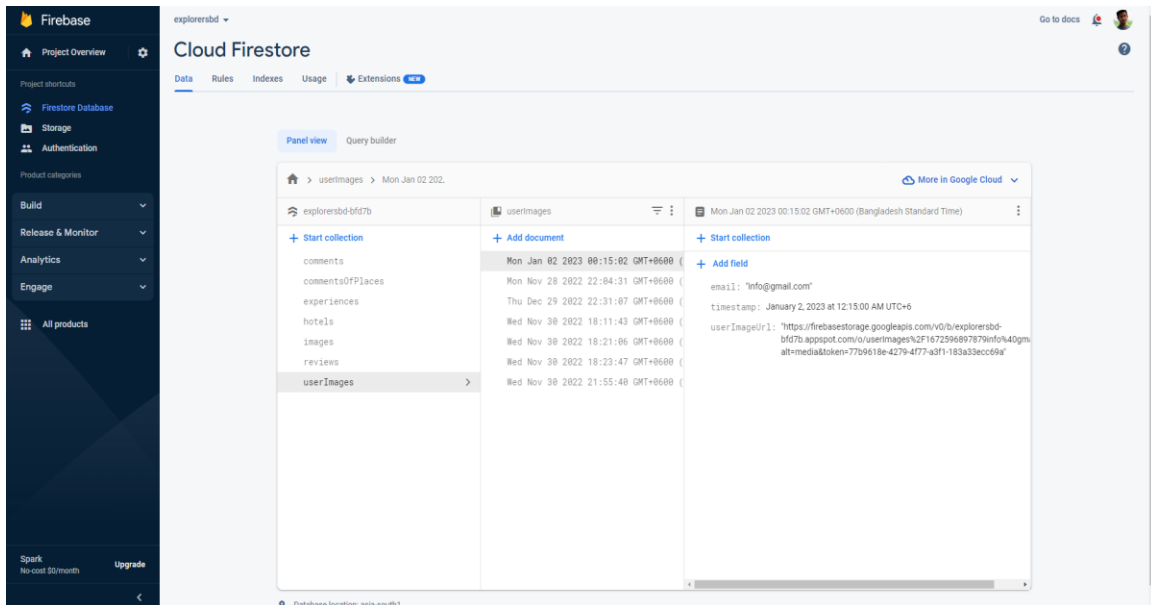


Figure 8.1: Users Image Data

Gallery Images Data

All that images we have in the gallery section are stored in firebase storage and the properties of data are stored in the firestore in the Images collection. It's shown in the figure 9.1.

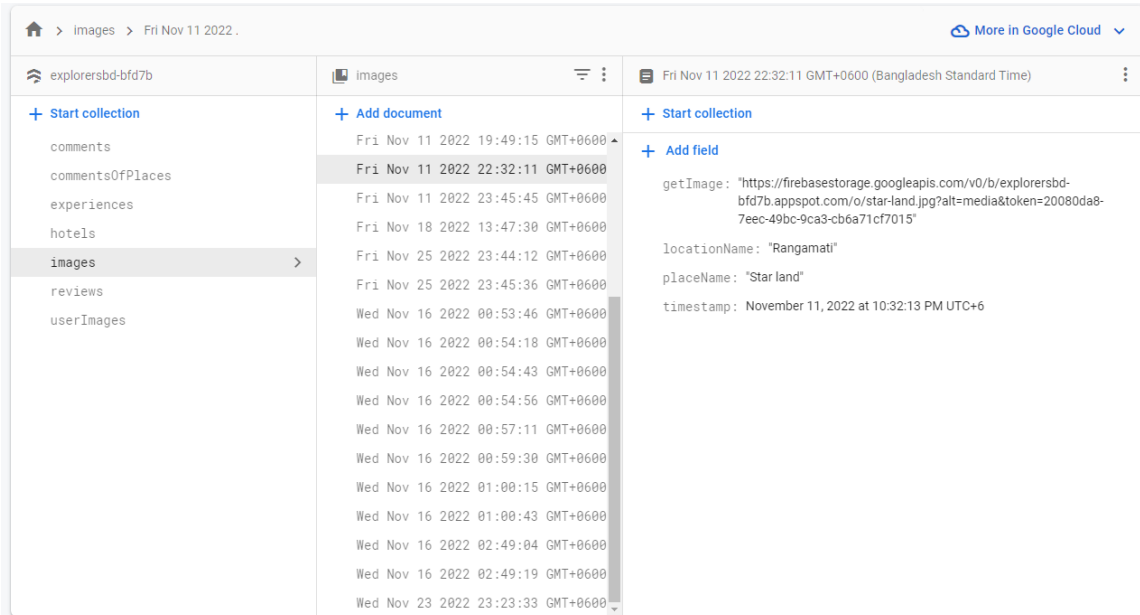


Figure 9.1: Gallery Images Data

Experiences Data

In the Experience collection of the firestore database, all the data of experiences excluding comments data are stored. The exact format is shown in the figure 10.1.

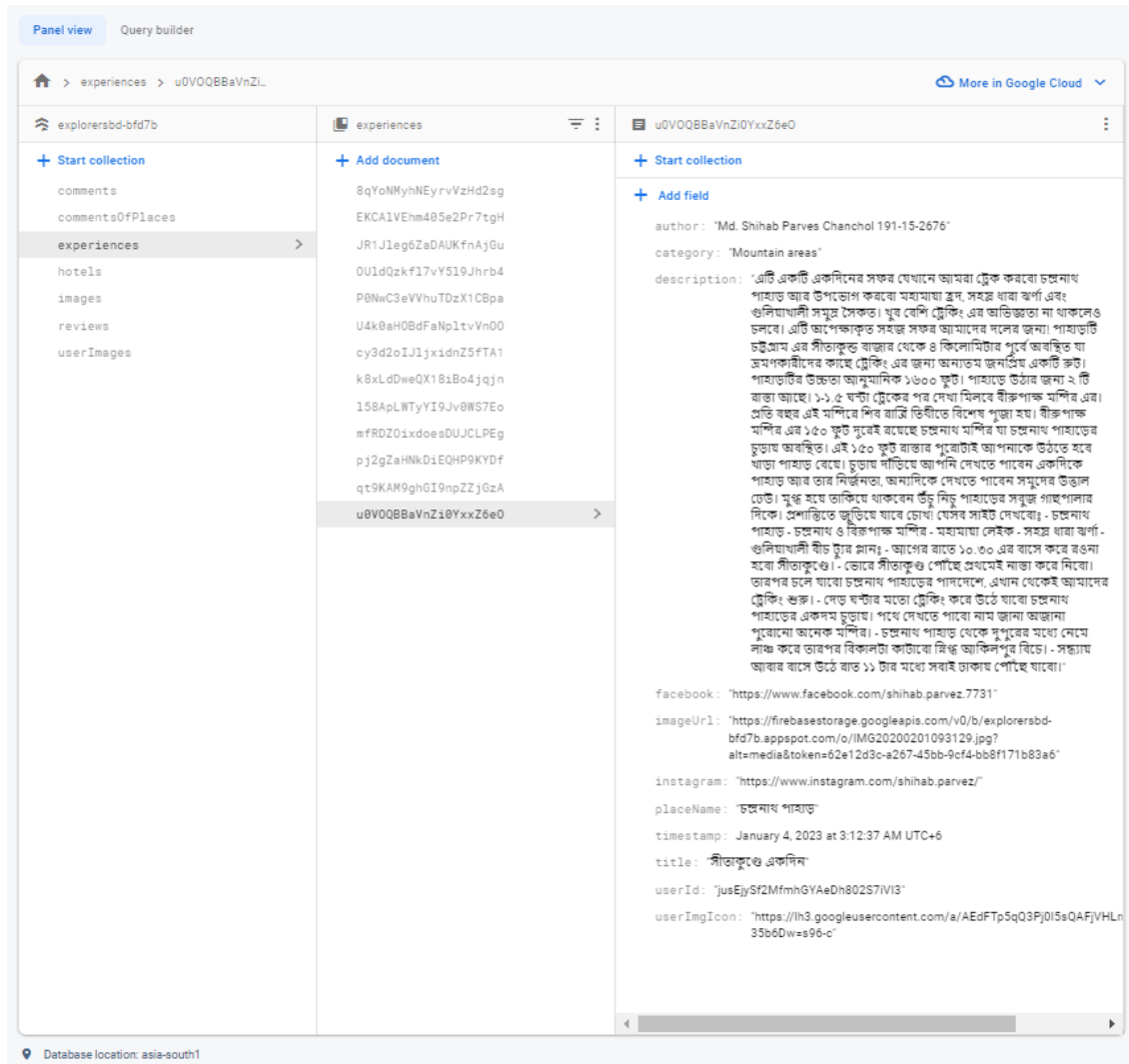


Figure 10.1: Experiences Data

Hotels Data

In the hotels collection of the firestore database, all the hotel and resort data are stored. The collection is shown in the figure 11.1.

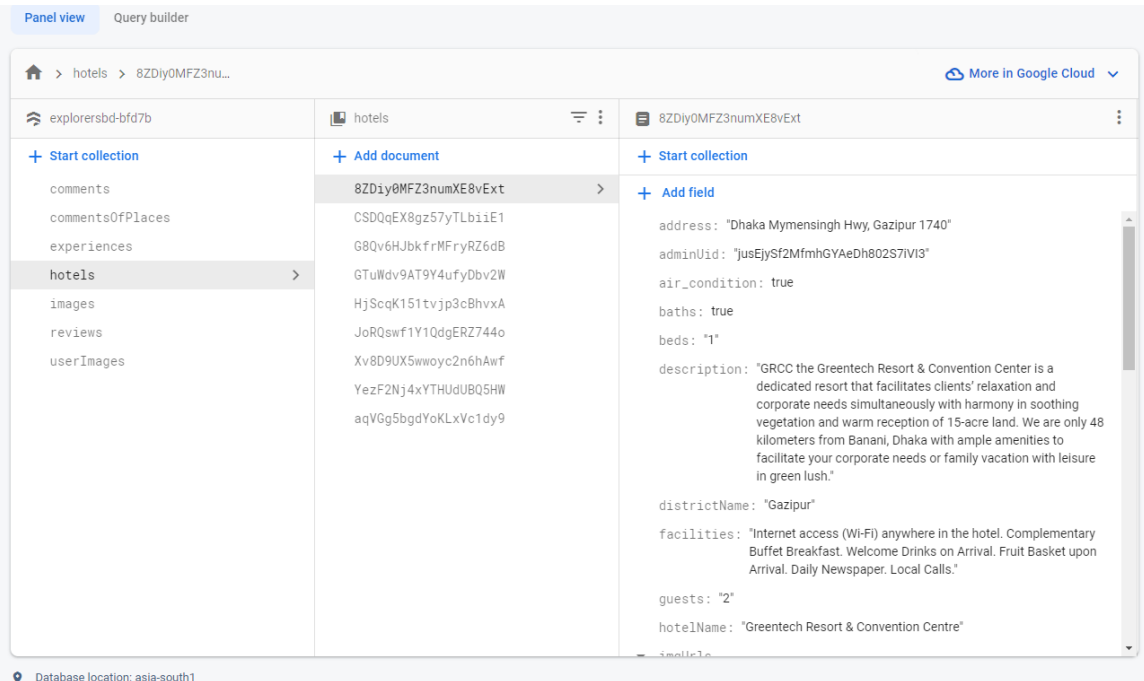


Figure 11.1: Hotels Data

Hotels Review Data

In the figure 12.1, all the reviews of hotels and resorts are stored in the review collection of the firestore database.

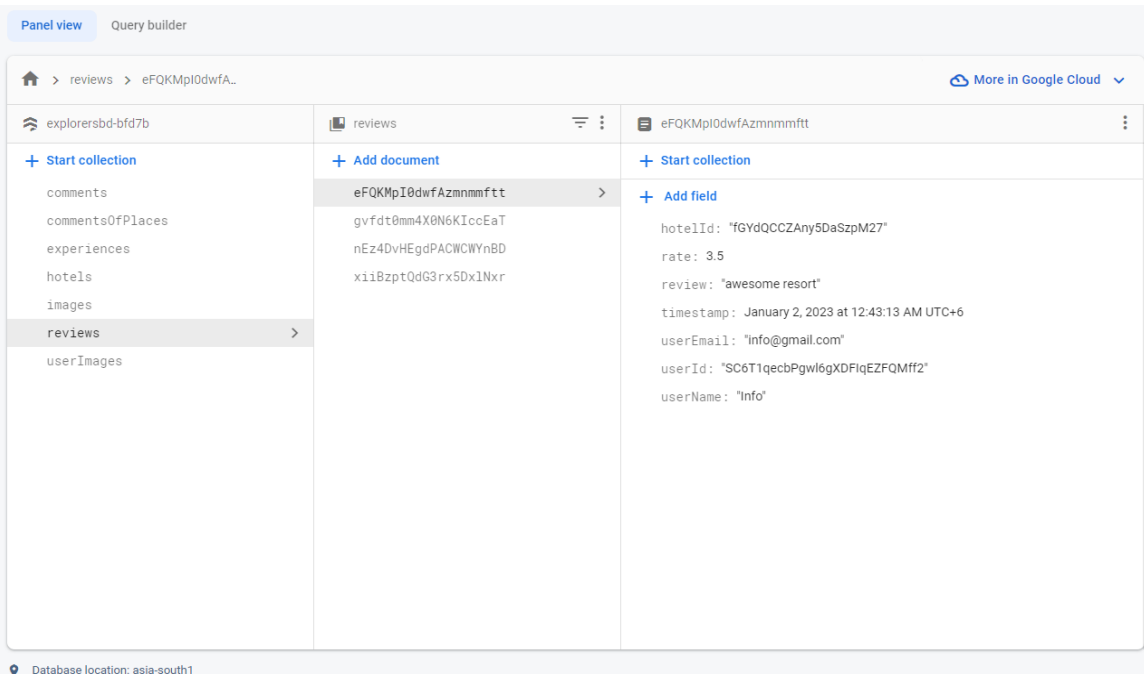


Figure 12.1: Hotels Review Data

5.2 Implementation of Front-end Design

Navbar

We have this navigation bar where all options will be expanded in larger screen sized devices and it will shrink down to a nav menu option for medium and small devices such as tablets and smartphones. In figure 13.1, 13.1.1 and in 13.1.2 all the phases are displayed.

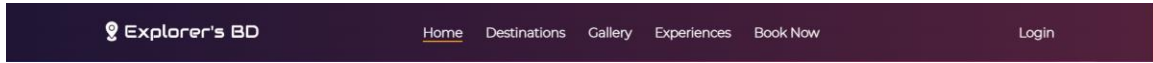


Figure 13.1: Navbar for large screen sized devices



Figure 13.1.1: Navbar shrunk for medium and small screen sized devices

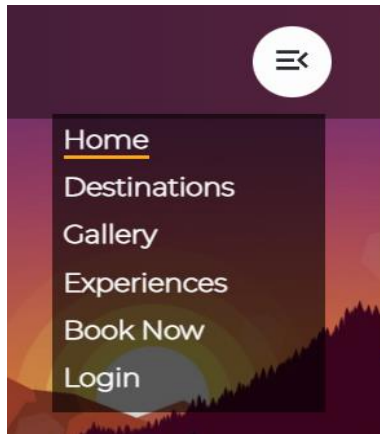


Figure 13.1.2: Navbar menu opened in medium and small screen sized devices

Footer

This is the footer section of our website which is shown in the figure 14.1 will be present in almost all of the pages and components. Here we have given our social handles and contact details for contact purposes. Clicking on contact no and email will have the info copied to the clipboard of the user. Some quick links which are also available in the navigation bar are given here for users' convenience along with a subscription option for users to subscribe to our newsletter.

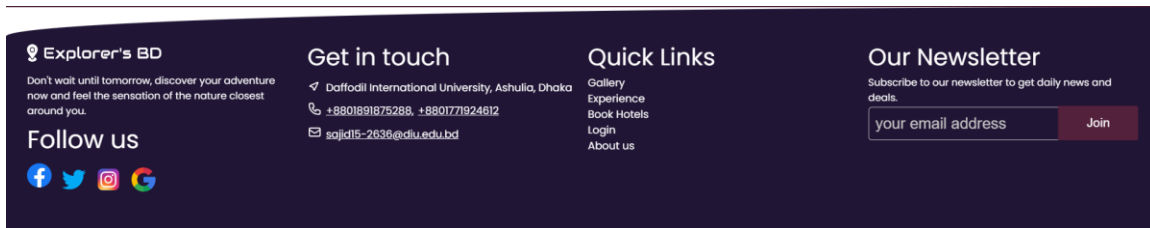


Figure 14.1: Footer

Homepage

Figure 15.1 is the homepage of our website. There is a search field of users with an option to select a division with a dropdown menu, if selected one then an input field will appear allowing the user to look for tourist spots in that division. The user can change the division any moment and then look for tourist spots in other divisions as well. Then we have popular destinations listed in the homepage for some places which are famous and much attractive to the travelers. After that, some of the gallery images, and popular hotels are also fetched from the firestore database to the homepage along with our role some frequently asked questions section.

Explore The Beauty of Bangladesh!

Don't wait until tomorrow, discover your adventure now and feel the sensation of the nature closest around you.


Get to Know

Khulna | colle

✕


Collectorate Park – Jessore
Jessore

Popular destinations




Lalbagh Fort

সম্রাট লাল বেগ (Lalbagh Fort) মুঘল সাম্রাজ্যের অন্যতম গুরুত্বপূর্ণ স্থান। এটি বাংলাদেশের অন্যতম সেরা পর্যটন কেন্দ্র।



National Parliament House

বাংলাদেশের জাতীয় সংসদ ভবন। এটি বাংলাদেশের রাজধানী ঢাকার কেন্দ্রীয় স্থান।





Bangabandhu Military Museum


শেখ মুজিবুর রহমানের জন্মস্থান। এখানে বাংলাদেশের স্বাধীনতা সংগ্রামের ইতিহাস দেখা যায়।

Photo Album


Visit Gallery





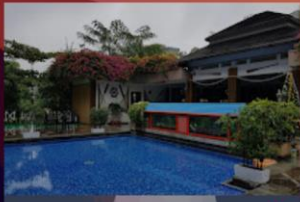


Popular hotels




Sarah Resort Gazipur ❤️ 2

Set among trees, this informal resort is 9 km from both Rajendrapur railway station and the Shitalak...
\$14,500 / night



Pan Pacific Sonargaon Dhaka ❤️ 1

This refined hotel in a lush garden setting is 2 km from the Bangladesh National Museum and 3 km fro...
\$38,652 / night



Nokkhotrobari Resort ❤️ 1

Surrounded by lush tropical gardens and featuring a lake, this relaxed resort is 41 km from Hazrat S...
\$5,420 / night

Figure 15.1: Homepage

Login

In the login page if users want to login by using their google account or facebook account then they can click on the google icon or the facebook icon and then a popup window will open for users to use their google account or facebook account. Same process will be followed by mobile devices but the difference is that in mobile devices there won't be any popup window, the user will be redirected to another page to complete the login. The figure 16.1 shows the frontend structure of the login page of our website.

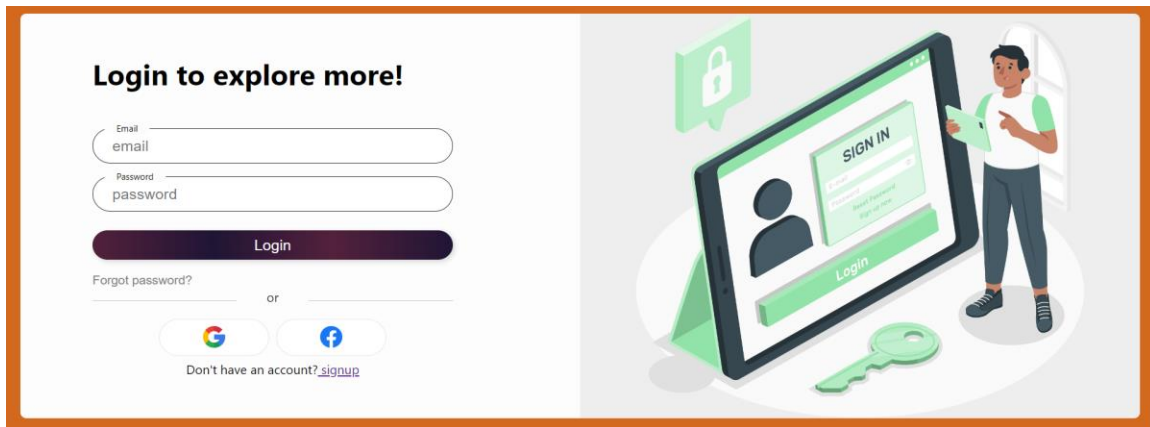


Figure 16.1: Login

Sign up

If a user doesn't want to use google or facebook to login and also if the user is not registered to our website, then he can go to the sign-up page from the login page and create an account by using email, password and an image. After signing up he will automatically be logged in to the system. The figure 17.1 shows the sign-up form.

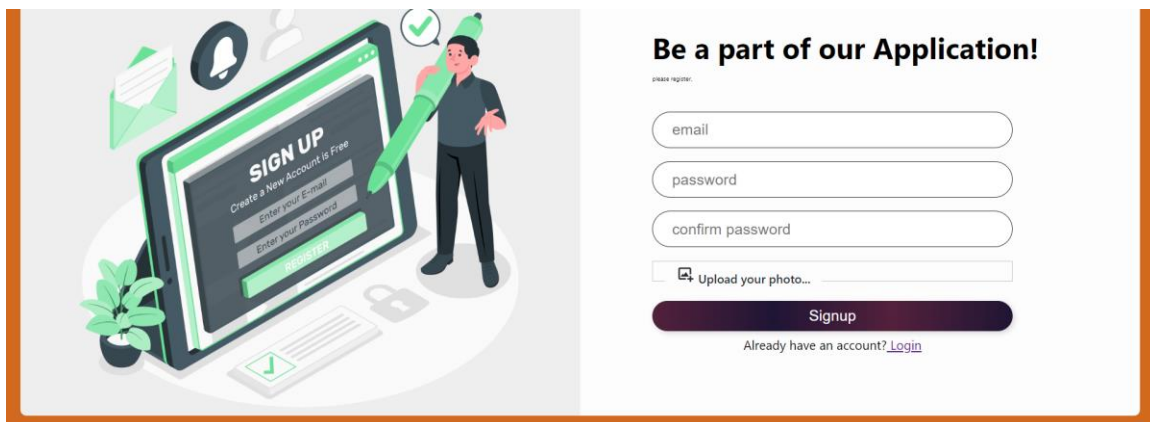


Figure 17.1: Sign up

Destinations

The destination page shown in the figure 18.1, has the list of divisions as we have categorized our destination data based on divisions.



Figure 18.1: Destinations

Users can select a division from the list like figure 18.1.1, to view all the destinations listed to that division.



Figure 18.1.1: Select Division

Destination Details

After selecting a division all available places of that particular division will be displayed in cards on this page like shown in the figure 18.1.2.

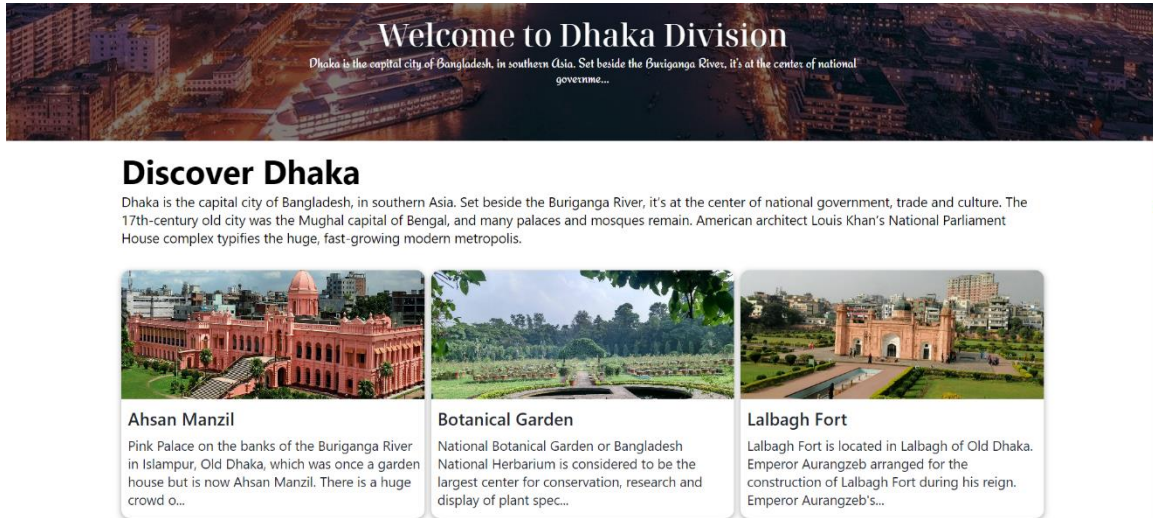
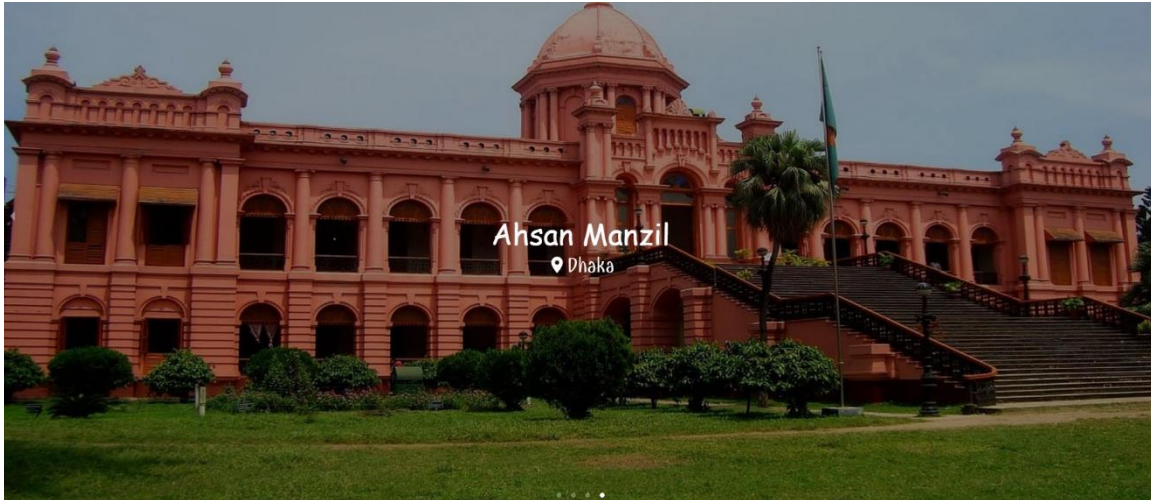


Figure 18.1.2: Places

From places, if clicked on any of the places, then the details of that place will be displayed in a separate page along with images, details, how to go there, a map view and comment section which is shown in figure 18.1.3. In the comment section anyone can comment with a statement of whether that person has visited the place or not. Along with all of the above the list of nearest available places will be shown.



ভাষা বেছে নিন

Ahsan Manzil

Dhaka

Pink Palace on the banks of the Buriganga River in Islampur, Old Dhaka, which was once a garden house but is now Ahsan Manzil. There is a huge crowd of visitors here now. If you want to see the works of the Mughal era from close, you can visit this ancient palace. Just south of Prasad is Buriganga river. Enter through the gate and you will see the flower garden on the side of the road. Be mesmerized by the array of red-blue-purple flowers. Huge green field in front of Manzil. A big staircase came down from the floor. Let's leave the nature and go to the palace. In the mid-eighteenth century, Sheikh Inayetullah Rangmahal, a zamindar of the then Jamalpur Pargana (now Faridpur-Barisal), was established by the banks of the Buriganga. After his death, the zamindar's son Sheikh Matullah sold it to French merchants. Around 1835, Khawaja Alimullah, father of Nawab Abdul Ghani, who lived in Begombazar, bought it and started living there. In 1872, Nawab Abdul Ghani rebuilt the building and named it Ahsan Manzil after his son Khwaja Ahsanullah. It is a two storied building. The balcony and floor are made of marble stone. Each cell is octagonal in shape. The interior of the palace is divided into two parts. Large dining room to the east. Library to the north. Jalsagar in the west. The roof of the entire building is made of wood. The ground floor games room has a separate area for playing billiards. The Durbar Hall is made of white, green and yellow stones. Living room, library and three guest rooms on the second floor. On the west side are the dance hall and some living rooms. Ahsan Manzil is Dhaka's first brick and stone architecture. Where the first electric lamp was provided by the Nawabs. Manzil's architecture has always attracted westerners. Lord Curzon used to stay here when he came to Dhaka. Bangladesh



Nearest hotels and resorts.



Hotel Sarina Dhaka
#7 Plot, #27 Road Banani C/A, Dhaka City 1213, Bangladesh, Dhaka
Hotel Sarina Dhaka is located at Banani adjacent to the diplomatic enclave and t...



Radisson Blu Dhaka Water Garden
Airport Rd, Dhaka 1206, Dhaka
Within 5 km of Hazrat Shahjalal International Airport, this upscale hotel on 2 h...



Comments about Ahsan Manzil

what is your full name?

I have visited Ahsan Manzil.
 I have heard about Ahsan Manzil.

say something about Ahsan Manzil... Comment


Sajid Hossain
 in a few seconds
 Beautiful place
 Sajid Hossain has not visited Ahsan Manzil.

Figure 18.1.3: Place Details

Gallery Form for Admin

In the gallery section of our website only the admin will be able to upload images of different places along with the name of the place and location name. All the images with its properties will be stored in firebase storage and firestore database. In the figure 19.1 the form is shown.

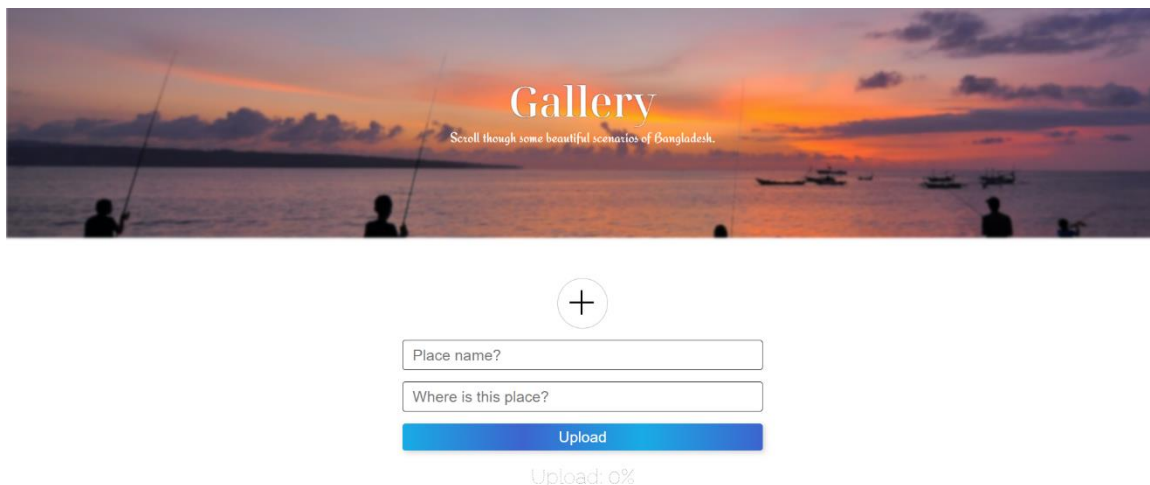


Figure 19.1: Gallery Form for Admin

Image View

Users will only be able to view gallery images as shown in the figure 19.1.1 and when the mouse is hovered over an image the place name and the location Name of that image will come up which will be always visible for mobile users. And by clicking on any image user can see the full view of any image.



Figure 19.1.1 Image View

Experiences

Any user can view all the experiences available but only authenticated users have permission to create posts. All the experience posts will be visible like figure 20.1 if the user goes to the experience page. And keeping in mind the efficiency and optimization of the application we have added pagination, so a fixed number of posts will be shown in every page. Whenever a user posts then that post is pushed to the firestore database linked with the image URL which is pushed to the firebase storage. There is also a component called recent post where the recently posted posts will be listed and this component is present in both the experience page and in the experience details page. Also, the author of a post can edit and delete the post.

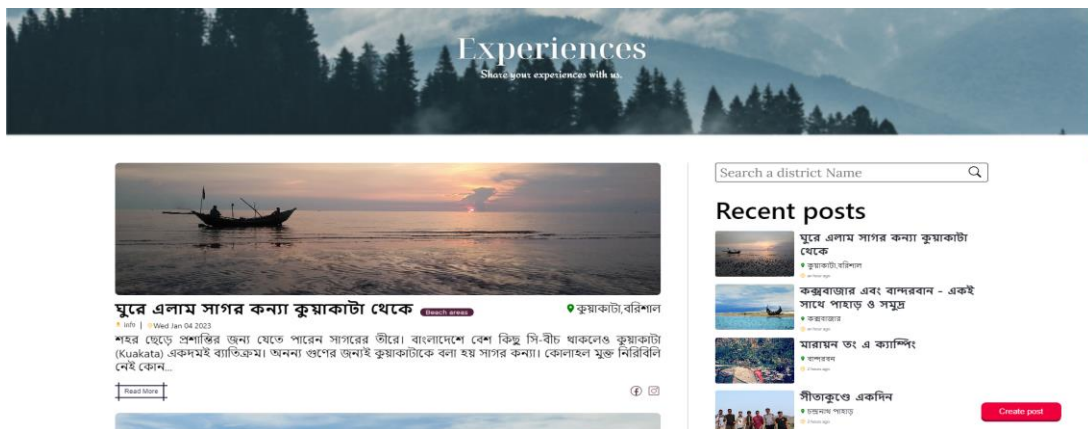


Figure 20.1 Experiences and Recent Posts

Search Experiences

Experience section has a search box like figure 20.1.1, which allows users to search for experiences based on the district name of the experience. With the help of this any user can look for experiences related to a specific location.



Figure 20.1.1 Search Experiences

Category based Experiences

In the figure 20.1.2 we have shown a feature where users can find experiences based on the different types of places around that can be visited. And they can select any type we have listed, and the experiences will be shown suitable to that type.

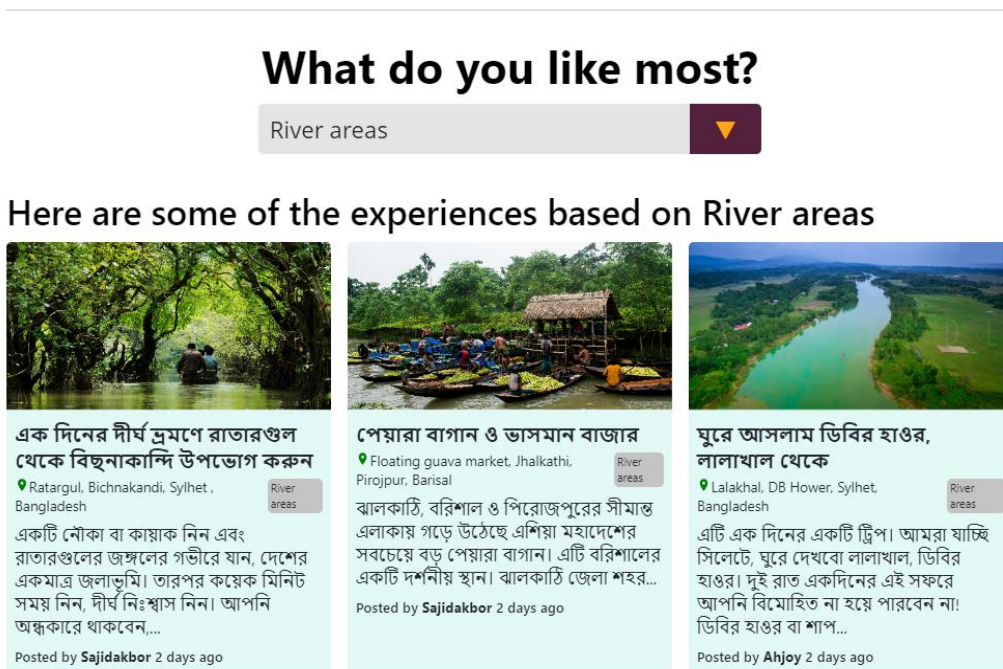
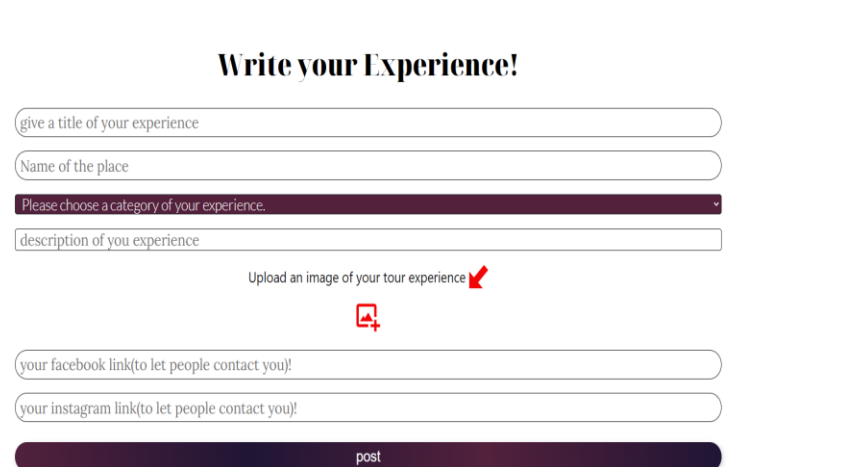


Figure 20.1.2 Category Based Experiences

Create Experience

The experience page has a button which is shown in figure 20.1, to create a post. After clicking the create post button if the user is not logged in then the user will be redirected to the login page and if logged in then the user will be able to add an experience by filling the required fields like the figure 20.1.2. After filling all the fields and clicking the post button all the data will be pushed to the firestore database and in the experience page the post will be updated in real time.



Write your Experience!

give a title of your experience

Name of the place

Please choose a category of your experience.

description of you experience

Upload an image of your tour experience

your facebook link(to let people contact you)!

your instagram link(to let people contact you)!

post

Figure 20.1.3 Create Experience

Experience Details

By clicking on the read more button of every experience or the recent post which is shown in the figure 20.1, a user can go to the experience details page which is shown in figure 20.1.3 where the full experience is displayed along with an image and recent posts as well. And a comment section is also added for the purpose of the opinions and says about the place of people who wish to say.



এটি একটি একদিনের সফর যেখানে আমরা ট্রেক করবো চন্দ্রনাথ পাহাড় আর উপভোগ করবো মহামায়া হ্রদ, সহস্র ধারা বর্ণা এবং গুলিয়াখালী সমুদ্র সৈকত। যুব বেশি ট্রেকিং এর অভিজ্ঞতা না থাকলেও চলাবে। এটি অপেক্ষাকৃত সহজ সফর আমাদের দলের জন্য! পাহাড়টি চট্টগ্রাম এর সীতাকুণ্ড বাজার থেকে ৪ কিলোমিটার পূর্বে অবস্থিত যা ভ্রমণকারীদের কাছে ট্রেকিং এর জন্য অন্যতম জনপ্রিয় একটি রুট। পাহাড়টির উচ্চতা আনুমানিক ১৬০০ ফুট। পাহাড়ে উঠার জন্য ২ টি রাস্তা আছে। ১-১.৫ ঘণ্টা ট্রেকের পর দেখা মিলবে বীরপাক মন্দির এর। প্রতি বছর এই মন্দিরে শিব রাত্রি তিথিতে বিশেষ পূজা হয়। বীরপাক মন্দির এর ১৫০ ফুট দুরেই রয়েছে চন্দ্রনাথ মন্দির যা চন্দ্রনাথ পাহাড়ের চূড়ায় অবস্থিত। এই ১৫০ ফুট রাস্তার পুরোটাই আপনাকে উঠতে হবে খাড়া পাহাড় বেয়ে। চূড়ায় দাঁড়িয়ে আপনি দেখতে পাবেন একদিকে পাহাড় আর তার নির্জনতা, অন্যদিকে দেখতে পাবেন সমুদ্রের উত্তাল ঢেউ। মুগ্ধ হয়ে তাকিয়ে থাকবেন উঁচু নিচু পাহাড়ের সবুজ গাছপালার দিকে। প্রশান্তিতে জুড়িয়ে যাবে চোখ। ফেসব আইট দেখাবোঃ - চন্দ্রনাথ পাহাড় - চন্দ্রনাথ ও বীরপাক মন্দির - মহামায়া লেইক - সহস্র ধারা বর্ণা - গুলিয়াখালী বিট টার প্লানঃ - আগের রাতে ১০.৩০ এর বাস করে রওনা হবে সীতাকুণ্ড। - ভোরের সীতাকুণ্ড পৌঁছে প্রথমেই নাস্তা করে নিবো। তারপর চলে যাবে চন্দ্রনাথ পাহাড়ের পাদদেশে, এখান থেকেই আমাদের ট্রেকিং শুরু। - দেড় ঘন্টার মতো ট্রেকিং করে উঠে যাবে চন্দ্রনাথ পাহাড়ের একদম চূড়ায়। পথে দেখতে পাবে নাম জানা অজানা পুরোনো অনেক মন্দির। - চন্দ্রনাথ পাহাড় থেকে দুপুরের মধ্যে নেমে লাঞ্চ করে তারপর বিকালটা কাটাতে নিষ্ক আকিলপুর বিচে। - সন্ধ্যায় আবার বাসে উঠে রাত ১১ টার মধ্যে সবাই ঢাকায় পৌঁছে যাবে।

 Md. Shihab Parves Chanchol 191-15-2676

Recent posts





-  মুরে এলাম সাগর কন্যা কুয়াকাটা থেকে
কুয়াকাটা বিশেষ
2 hours ago
-  কক্সবাজার এবং বান্দরবান - একই সাথে পাহাড় ও সমুদ্র
কক্সবাজার
2 hours ago
-  মারায়ন তং এ ক্যাম্পিং
বান্দরবান
3 hours ago
-  সীতাকুণ্ডে একদিন
চন্দ্রনাথ পাহাড়

Figure 20.1.4 Experience Details

Experience Comments

Only authenticated users can comment on the experience posts of other users. And if the user changes his mind later and want to delete the comment, there is a delete option as well. The comment box is shown in the figure no 20.1.4.

Comments


 SAJID HUSSAIN 4 hours ago
What an amazing adventure!

Figure 20.1.5: Experiences comments

Book now type selection

In the book now page there are two types, hotels and resorts. And a search bar is featured where the user can select a type hotels and resort and search accordingly. From the selection menu one of the two can be selected like figure 21.1. All of the hotels and resorts data are stored on the firestore database and storage by the admin and fetched here. So, if the user selects the hotel, then hotels will be rendered and if selection is resort, then resorts will render. All of these hotels and resorts will be displayed in cards. And clicking on them will take the user to the details page.

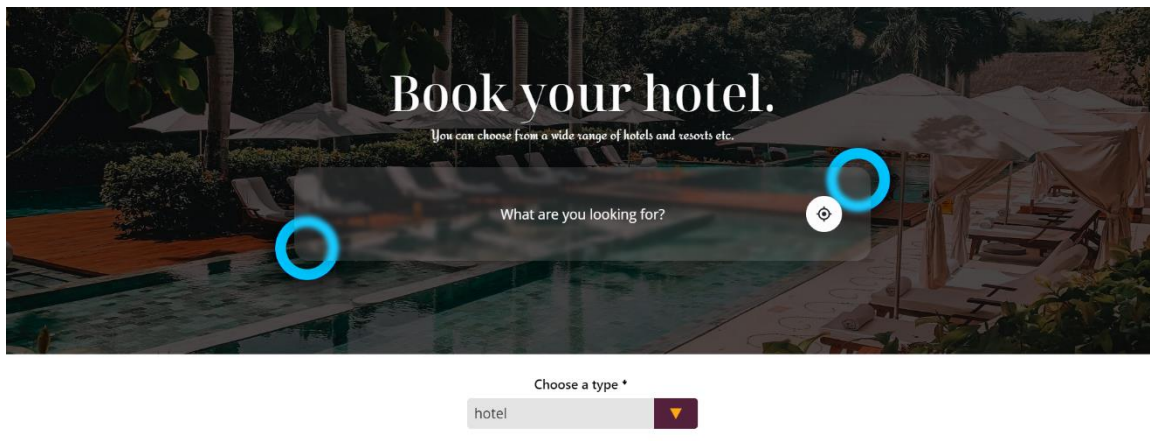


Figure 21.1: Hotel Search and Type Selection

Hotel Details

In the details page of hotels and resorts multiple images of the hotels are shown in an image carousel system along with all the necessary details of each hotel and resorts which is shown in the figure 21.1.1. There is a map view of the location of the hotel and after that some of the popular ones are also listed. An authenticated user can react to the hotel, rate and review the hotel and send the booking request. Also, a list of popular hotels based on the likes of users is shown at the bottom.



Le Méridien Dhaka

79/A Commercial Area Airport Rd, Dhaka 1229

♥ 1 ★ 0.0

👥 6 guests 🛏 3 beds 🚿 baths

This upscale, contemporary hotel is 2 km from Hazrat Shahjalal International Airport and 11 km from Jatiyo Sangsad Bhaban, the Bangladesh Parliament complex. Featuring floor-to-ceiling windows, the polished rooms have sitting areas, smart TVs, and free Wi-Fi, plus stylish bathrooms with rainfall showers. Suites add separate bedrooms, and some have dining areas, bars, and private butlers. There are 6 restaurants and bars, including an Italian eatery and a pub. Other amenities include a fitness center and an infinity pool, plus a spa and a juice bar. There's also a business center, and conference and banquet space.

Facilities:

Pool, Parking(free), Breakfast(free), Wi-Fi(free), Car rental Onsite, Full-service laundry, Interconnected rooms available

Amenities

- 🌬 Air conditioning
- 📺 TV
- 🧼 Soap and Toilet Paper
- 📶 Wi-Fi
- 🛏 Towels and Bedsheets
- 🏊 Pool

View on Map

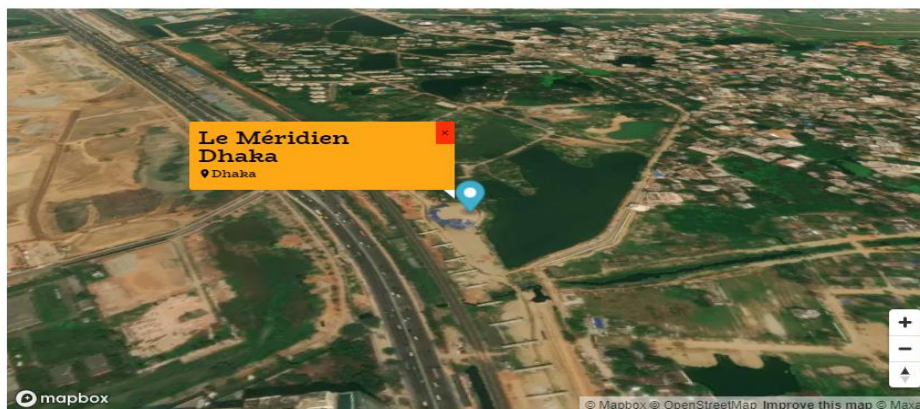
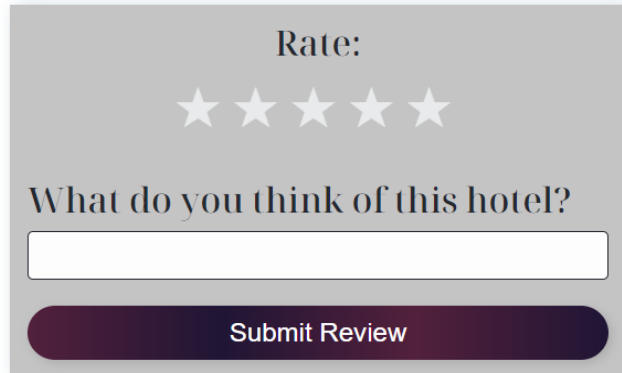


Figure 21.1.1: Hotel Details

Hotel Rating and Review

Authenticated users can rate and review a hotel by filling the fields shown in the figure 21.1.2. And we have validated the form so they can rate and review only once. The rating along with the review will be stored in the firestore database linked to the respective hotel/resort. And an average rating will be shown at the top of the page.

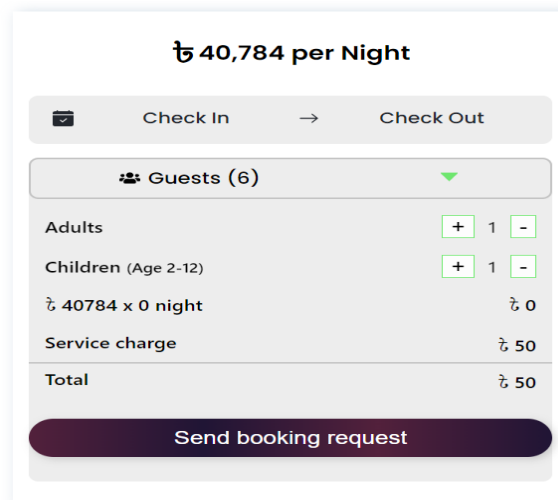


The form is titled "Rate:" and features five empty star icons for rating. Below the stars is the question "What do you think of this hotel?" followed by a text input field. At the bottom is a dark purple button labeled "Submit Review".

Figure 21.1.2: Hotel Rating and Review

Send Booking Request

So, from the form shown in the figure 21.1.3 a user can send a booking request to us and we will forward it to the hotel that the user has chosen. For that the user has to be authenticated, then pick up a check in and a check out date and no of adults and no of children. The price will be adjusted according to the check in and check out dates. And we have validated the form for limitations and bounds.



The form displays a price of "₹ 40,784 per Night". It includes fields for "Check In" and "Check Out" dates, and a "Guests (6)" section with a dropdown arrow. Below this are two rows for "Adults" and "Children (Age 2-12)", each with a "+ 1 -" button. A summary table shows the total price and service charge.

₹ 40784 x 0 night	₹ 0
Service charge	₹ 50
Total	₹ 50

At the bottom is a dark purple button labeled "Send booking request".

Figure 21.1.3: Send Booking Request

5.3 Testing Implementation

Conditions need to be fulfilled to sign up:

Table 1.1 Conditions needs to be fulfilled to sign up

SL NO	Statement	Test Data	Result	Pass/Fail
1	When password and confirm_password is not the same	Email: sajid15-2636@diu.edu.bd Password: test1122 Confirm Password: test1112 Image: sajid.jpg	password and confirm password did not did not match.	fail
2	When no user image has been uploaded	Email: sajid15-2636@diu.edu.bd Password: test1122 Confirm Password: test1122	upload a image	fail
3	When email input, password and confirm_password is correct and image uploaded	Email: sajid15-2636@diu.edu.bd Password: test1122 Confirm Password: test1122 Image: sajid.jpg	Sign up successful	pass

Login pre conditions:

Table 2.1 Login pre conditions

SL NO	Statement	Test Data	Result	Pass/Fail
1	When email is correct but password is incorrect	Email: info@gmail.com Password: 123456789	Wrong Password	fail
2	When email is incorrect but password is correct	Email: infooo@gmail.com Password: 123456	User not found	fail
3	When email and password both are correct	Email: info@gmail.com Password: 123456	Logged in successfully	pass

CHAPTER-6

Impact on Society, Environment and Sustainability

6.1 Impact on Society

Our website can have a significant impact on society, both positive and negative. One of the main positive impacts can be that our website will make it easier for people to plan and book their travel. Whether it's for leisure or business. This has greatly increased the accessibility and convenience of travel for many people.

In addition, our website will also have a positive impact on the economy, as it will help to promote and facilitate travel and tourism. Which plays a vital role in the economy of our country.

On the negative side, there are concerns that our website may contribute to over-tourism in some popular destinations, as it makes it easier for people to visit these places. Over-tourism can lead to a range of negative impacts, such as environmental degradation, overcrowding, and the displacement of local residents.

Overall, the impact of our website on society can be complex and multifaceted, and it is important to consider both the positive and negative consequences of its use.

6.2 Impact on Environment

The impact of our website on the environment can be both positive and negative. On the positive side, our website can help to promote sustainable and eco-friendly tourism by providing information about environmentally friendly accommodations, such as accommodations that are designed to minimize their environmental impact or tours that support conservation efforts.

On the negative side, our website may contribute to over-tourism in some destinations, which can have a range of negative impacts on the environment. It can lead to overcrowding, which can put a strain on local resources and infrastructure. It can also lead to environmental degradation, such as pollution and the destruction of natural habitats, as more people visit these areas.

Overall, the impact of our website on the environment is largely dependent on how it is used and the options we are offering. It is important for our website to consider the environmental impact.

6.3 Ethical Aspects

There are some ethical aspects that we need to take into our account to manage our website. Those include:

Fair pricing: It is very important for us to be transparent about all the price-related aspects that our website has, as well as the pricing should be reasonable. Means that there should not be any hidden fees or surcharges and we should be clear to the customer about other costs that may be incurred.

Customer privacy: We should respect the privacy of our users and customers and protect their personal data. Meaning that, we should not share customer information with any third parties without the customer's consent.

Accuracy of information: It is one of the most important things for us to provide accurate and up-to-date information about everything, such as the destination places, the hotel addresses, and its facilities.

Customer services: We should provide excellent customer service and be responsive to customer inquiries and complaints. This is why we have provided multiple ways for users to contact us.

6.4 Sustainability Plan

Some of our sustainability plan includes, we can offer and promote offer travel options that are designed to minimize the environmental impact of our website, such as eco-friendly accommodations and sustainable tours. We can work with local partners to support the development of sustainable tourism practices and to benefit local communities. We can work to minimize carbon emissions associated with travel by offering options such as public transportation. Our website can promote and support conservation efforts in the destinations it promotes. It will encourage travelers to engage in activities that help to protect the environment. We can establish metrics to track its progress towards sustainability goals and regularly report on its progress.

CHAPTER-7

Conclusion and Future Scope

7.1 Discussion and Conclusion

Completing the “Explorers BD” project was extremely tough but we enjoyed it and we have planned and prepared for it with a lot of research about similar web applications and works. In almost every point of work there were some sort of challenges and difficulties that occurred but we tried our best to overcome them and we did it well. Throughout this project we have learned a lot of things such as how to do better work as a team together. We have learned new technologies and processes that will definitely help us in the future to work in a team and in diverse situations as well. We have a very clear vision about the subject we’ve worked on and the knowledge of our sector which will surely help us. The application we’ve built in this project will be helpful for many travelers around Bangladesh.

7.2 Scope for Further Developments

We have already planned for the future to update some of the functionalities of our website along with some features which will make our website more user friendly with extra functionalities. In future we want to expand our website in terms of information of destinations outside of Bangladesh. So that it can help foreign travelers as well. And as for the development of our website we will have our website under maintenance and will periodically update the website and push fix of bugs and issues. We already have plans to expand this project as a business.

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