

**A Mini Project Synopsis on**  
**TREK MOSAIC**

**S.E. – Computer Science and Engineering –Data Science**

**Submitted By**

**Yash Baviskar                      22107021**

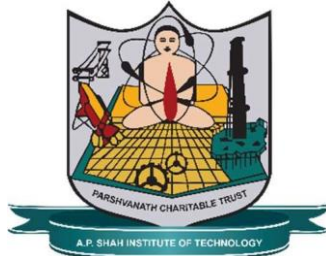
**Mohini deore                      22107065**

**Akshata Khandekar              22107034**

**Sharayu Mahajan                22107051**

**Under The Guidance Of**

**Prof . Sarala Mary**



**DEPARTMENT OF CSE (DATA SCIENCE)**  
**A.P.SHAH INSTITUTE OF TECHNOLOGY**  
**G.B. Road, Kasarvadavali, Thane (W), Mumbai-400615**  
**UNIVERSITY OF MUMBAI**

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## **CERTIFICATE**

This to certify that the Mini Project report on Trek Mosaic has been submitted by \_Yash Baviskar(22107021)\_Mohini Deore (22107065) Akshata Khandekar (22107034) Sharayu Mahajan (22107051) who are a Bonafede students of A. P. Shah Institute of Technology, Thane, Mumbai, as a partial fulfillment of the requirement for the degree in CSE(DATA SCIENCE), during the academic year 2023-2024 in the satisfactory manner as per the curriculum laid down by University of Mumbai.

Prof Sarala Mary  
Guide

Prof. Anagha Aher  
Head Department of CSE – Data Science

Dr. Uttam D.Kolekar  
Principal

External Examiner(s)

- 1.
- 2.

Place:A.P.Shah Institute of Technology, Thane

Date: 12/09/23

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# Chapter 1

## Introduction

Whether you're an avid hiker seeking a challenging ascent or a nature enthusiast yearning for serene trails, our Trek Planner is your compass to an unforgettable expedition. We recognize the existing pain points faced by trekkers, including the lack of a unified software solution, challenges in trail selection, limited connectivity, incomplete information resources, and a dearth of proper gear recommendations.

Designed with meticulous attention to detail, our Trek Mosaic is your indispensable companion for crafting the perfect trekking experience. From selecting the ideal trail to preparing a comprehensive itinerary, we're here to ensure every step of your journey is infused with excitement and safety. But that's not all – Trek Planner goes the extra mile. It enables you to create personalized itineraries, offering flexibility and customization to match your schedule and preferences. Whether you're a solo adventurer, a group of friends, or a family seeking a memorable getaway, Trek Planner ensures that your trek is tailored to your unique desires.

Trekking is an extraordinary outdoor activity that offers a unique connection with nature, a chance to push your physical limits, and an escape from the daily grind. Our Trek Planner, Trek Mosaic, is dedicated to enriching your trekking experience in every possible way. We understand the challenges and pain points that trekkers often face. These challenges include the absence of a unified software solution to streamline their planning, difficulties in trail selection, limited connectivity in remote areas, incomplete information resources, and a lack of proper gear recommendations. With meticulous attention to detail, we've crafted Trek Mosaic to be your indispensable companion for creating the perfect trekking experience. Whether you're an avid hiker seeking a challenging ascent or a nature enthusiast yearning for serene trails, Trek Mosaic is your compass to an unforgettable expedition.

We've made trail selection a breeze by providing an extensive database of trails, ranging from beginner-friendly paths to advanced, adrenaline-pumping routes. You can filter and search for trails based on difficulty, distance, location, and more. Each trail comes with comprehensive information, including terrain descriptions, elevation profiles, and user reviews, allowing you to make an informed decision about your adventure.

## **1.1 Purpose**

The Trek Planner project embodies a similar visionary spirit, aiming to revolutionize the way adventure enthusiasts plan and embark on treks. For trekkers, this translates to a platform rich with meticulously curated trails, each accompanied by comprehensive information and resources, ensuring that every adventure is planned with confidence and excitement. On the flip side, seasoned trekking professionals have the opportunity to effortlessly organize and lead treks, providing participants with vital details, and a safe, memorable experience. This app transcends traditional trek planning, offering a dynamic and accessible space where passion for the outdoors meets the thrill of discovery. It's about uniting trekkers with the trails that call to them, creating unforgettable memories and forging connections with nature like never before. In an era of digital empowerment, the Trek Planner app embodies efficiency, accessibility, and a global reach, opening up a world of adventure for enthusiasts around the globe.

### **1.Intelligent Trail Recommendation Engine:**

Incorporate a "Join a Trek" feature where users can search and discover treks that match their skill level, location, and preferences.

### **2.My Profile:**

Enable users to create profiles within the app with details about their trekking experience, interests, and achievements. Also you can rent gears and get access to various trek informations.

### **3.Create a Trek:**

Empower experienced trekkers to organize and lead treks by providing a "Create a Trek" feature. Allow trek organizers to input trek details, including trail information, date, meeting point, and capacity limits.

## **1.2 Objective**

In crafting the Trek Planner app, our primary aim is to provide a comprehensive and user-friendly platform tailored for trekking enthusiasts of all levels. Each feature is meticulously designed with the goal of enhancing every aspect of the trekking experience, ensuring that users can embark on their journeys with confidence and excitement. Here are the key objectives for each function:

Trek Info: Access a diverse database of trekking trails with detailed descriptions for confident adventure planning

- Offer access to a diverse database of trekking trails.
- Provide detailed descriptions for each trail.
- Empower trekkers with essential information for confident adventure planning.

Admin : Ensure secure and efficient platform management for administrators, providing access to key features.

- Prioritize security and efficiency for administrators.
- Enable seamless management of various platform aspects.
- Grant access to crucial features like Trek Information, Verification, and Add Trek.
- Facilitate oversight of trek creation and user management.

Create Trek : Empower experienced trekking leaders to effortlessly organize and lead treks, ensuring safe and memorable experiences for participants

- Empower experienced trekking professionals.
- Enable them to effortlessly organize and lead treks within the app.
- Provide tools for sharing vital trek details, setting up meeting points, and offering real-time updates for participant safety.

Join Trek: Connect trekkers with like-minded individuals by providing a seamless platform to discover and join adventures organized by experienced leaders.

- Facilitate connection among like-minded trekkers.
- Provide a seamless platform for discovering and joining treks organized by experienced leaders and fellow enthusiasts.
- Implement a browsing system for filtering treks based on preferences, skill level, and location.

My Profile: Personalize your trekking profile to showcase achievements and favorite trails. Enable users to create and manage personalized trekking profiles.

- Showcase achievements and favorite trails.
- Allow users to track their progress, promoting a sense of accomplishment and community

## Gear Recommendation :

- Receive customized gear suggestions based on trek difficulty and weather conditions.
- Get advice on essential clothing, footwear, and backpack features.
- Learn about safety gear, camping equipment, and navigation tools.

## 1.3 Scope

Trek Mosaic envisions a broad and inclusive scope, catering to a diverse range of users, from passionate trekking enthusiasts to casual hikers and general tourists seeking adventure. It aims to provide a diverse and inclusive platform that caters to a wide range of users, from avid trekking enthusiasts to casual hikers and adventurous tourists seeking new experiences.

- The primary target audience includes passionate trekking enthusiasts and hikers who have a deep appreciation for exploring the wonders of nature. They are looking for a platform that enriches their trekking adventures with valuable information and personalized gear recommendations.
- Additionally, general tourists who are eager to add an element of excitement and adventure to their travels are a significant focus. They can benefit from simplified trail selection and detailed trek information provided by Trek Mosaic.
- Student groups and families planning outdoor educational trips or bonding experiences constitute another important segment. The platform offers a comprehensive solution tailored to their specific needs, ensuring a safe and enriching experience.
- Local trek organizers are crucial stakeholders within our scope. Trek Mosaic empowers them to streamline their operations and build a sense of community among trekkers, contributing to the overall success of trekking endeavors.

## **Chapter 2**

### **Problem Definition**

The realm of trekking and outdoor adventures has long suffered from various challenges that hinder the experiences of both seasoned trekkers and newcomers alike. The lack of a centralized and user-friendly platform for accessing trek information is a persistent issue, making it difficult for enthusiasts to find reliable data on trails, descriptions, and difficulty levels, thereby impacting their ability to plan successful treks. Moreover, organizing and participating in treks often involves cumbersome administrative processes, hindering the overall enjoyment and accessibility of this recreational activity. The absence of a convenient platform for both experienced leaders and trekkers to create, manage, and join treks significantly limits the potential for meaningful and safe outdoor adventures.

Another prevalent problem is the absence of a cohesive and personalized trekking profile management system. Trekkers currently lack a streamlined means of showcasing their trekking achievements, favorite trails, and experiences, which diminishes the sense of community and connection within the trekking world. Additionally, obtaining comprehensive information about various treks and their associated details remains a challenge, affecting the overall preparedness and safety of trekkers during their expeditions. Finally, the process of selecting and acquiring the necessary gear for treks is often cumbersome and uncertain, as trekkers struggle to access a consolidated list of required equipment or have access to a gear rental service.

Addressing these challenges with the proposed solution of Trek Mosaic is crucial to enhancing the overall trekking experience, ensuring it is more accessible, organized, and personalized for all outdoor enthusiasts.



## Chapter 3

### Proposed System

Trek Mosaic is comprehensive and user-friendly platform is set to be the ultimate companion for trekkers and hikers, offering a wide array of features where you can effortlessly access an extensive database of trekking trails, complete with comprehensive information, trail descriptions, and essential details to confidently plan your trek. Experienced trekking professionals can seamlessly organize and lead treks within the app, sharing vital trek details and providing real-time guidance. You can also join treks organized by fellow enthusiasts, connecting with like-minded trekkers for thrilling adventures. Additionally, your personalized trekking profile within the app allows you to showcase your achievements

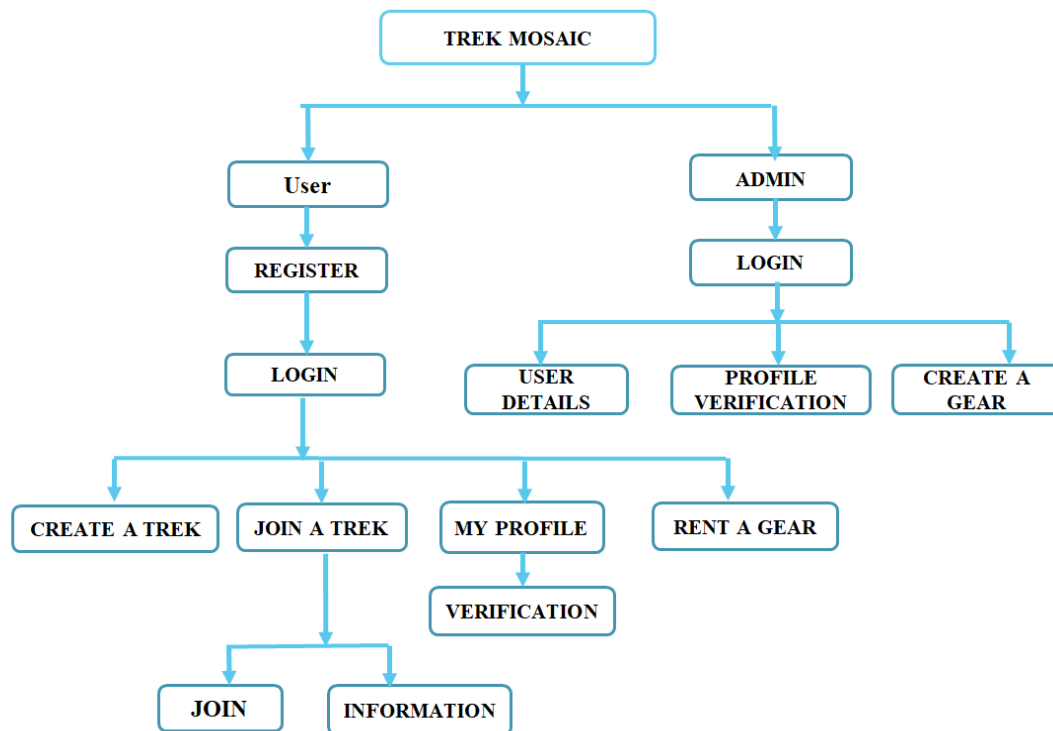


Figure 1 – Block Diagram of Trek Mosaic

This figure 1 is a visual representation of the user journey for the Trek Mosaic app. The app allows users to create and join treks, rent gear, and manage their profile. The flowchart is divided into two sections, one for the user and one for the admin. The user section includes options for registering, logging in, creating or joining a trek, renting gear, and

managing their profile. The admin section includes options for managing user profiles and creating gear.

#### Register

- The user begins their journey by registering for the app.
- They provide their details such as name, email, and password.
- This information is then stored securely in the app's database.

#### Login:

- After successfully registering, the user can log in to the app.
- They enter their registered email and password.
- The app verifies the provided credentials against the stored data.
- If the credentials are correct, the user gains access to their account.

#### Create or Join Trek:

- Once logged in, the user has the option to either create a new trek or join an existing one.
- When creating a trek, the user specifies details like location, date, and time for the event.
- If the user chooses to join an existing trek, they can browse through available treks and select one to participate in. They can also view the trek's details before joining.

#### Rent Gear:

- The user, now part of a trek, may need specific gear for the adventure.
- They can browse the available gear options such as tents, sleeping bags, and backpacks.
- Once they've made their selection, they proceed to rent the chosen items.
- The app records the rented gear against their account.

#### Manage Profile:

- The user can access and see their profile information.
- This feature allows users to maintain accurate and up-to-date information in their account.

Now, let's look at the admin section:

#### Manage User Profiles:

- The admin has the authority to view user profiles.
- This could involve tasks like correcting information, verifying accounts, or addressing any issues related to user accounts
- Admins will have access to crucial features such as Trek Info, Verification, and Add Trek, enabling them to oversee the creation of treks and manage registered users effectively.

#### Create Gear:

- The admin is responsible for adding new gear items to the app's inventory.
- This involves providing details such as item name, description, and possibly setting rental rates.
- This flowchart and user journey provide a clear overview of how both users and admins interact with the Trek Mosaic app. Users can register, log in, create or join treks, rent gear, and manage their profiles. Admins have the ability to manage user profiles and add new gear to the app's inventory.

### **3.1 Features /functionality**

1. Trek Info : Explore an extensive database of trekking trails, each accompanied by comprehensive information, including trail descriptions. Get all the essential details you need to plan your trek with confidence.
2. Admin page: Admin page which is protected by admin key username and password is able to have Trek Info, Verification and Add Trek features available at admin's disposable where admin will have info of all created treks as well as all registered users, Admin will be able to verify users to be able to Create Trek using user's uploaded documents and details they used for registration. Admin will be able to add new fresh gear with features for registered users to rent gear through their page
3. Create Trek by Professionals :Experienced trekking professionals can effortlessly organize and lead treks within the app. Share vital trek details, set up meeting points, manage registrations, and provide participants with real-time updates and guidance to ensure a safe and memorable trekking experience.
4. Join Trek:Easily discover and join treks organized by experienced leaders and fellow enthusiasts. Browse through a variety of treks based on your preferences

, skill level, and location, making it simple to connect with like-minded trekkers and embark on thrilling adventures together.

5. **My Profile** :Create and manage your personalized trekking profile, showcasing your trekking achievements, favorite trails. Stay connected with your trekking community, and keep track of your completed treks, all from your user-friendly profile interface.

## **Chapter 4**

### **Project Outcomes**

Discover Trek Mosaic, your go-to platform for enhancing trekking adventures. From detailed trail insights to personalized profiles and real-time updates, it empowers both experienced leaders and individual trekkers. With gear recommendations and customizable trek choices, Trek Mosaic ensures safer, more enjoyable, and personalized trekking experiences for all.

1.Enhances Trekking Experience: Trek Mosaic provides detailed trail information and insights, ensuring safer and more enjoyable treks.

2.Empowering Trek Organizing: Experienced leaders can efficiently organize and manage treks, expanding the scope of organized trekking experiences.

3.Personalized Trekking Profiles: Users can showcase their trekking achievements and connect with like-minded individuals through personalized profiles.

4.Trek Updates: Real-time updates keep trekkers informed, contributing to safety and preparedness during treks.

5.Help in Providing Adequate Gear: The platform offers gear recommendations and rental options, ensuring trekkers have the right equipment for their journeys.

6.Personalized Trek Selection: Users can tailor their trek choices to match their preferences and skill levels, making trekking accessible to all.

## Chapter 5

### Software Requirements

The project seamlessly weaves together a dynamic combination of key elements, starting with as shown in table 1 the JDK Kit (Java Development Kit) to create a robust Java-based application. Git, a versatile version control system, ensures efficient collaboration and code management throughout the development process. The project's foundation lies in Java Core, utilizing the language's powerful features for building a solid and versatile backend system. This backend implementation is further fortified with MySQL, a reliable and widely-used relational database management system, and JDBC (Java Database Connectivity) for smooth data interaction. Together, these elements synergize to deliver a well-structured and functional application that offers flexibility, scalability, and effective data management.

- JDK kit (Java Development Kit)
- Git - Version Control
- Java Core
- Version control- Git
- Backend implementation : MySql Database

Components	Sub-component
Operating System	Windows 11
Languages	Java
Backend	MySql 8.0
IDE	Apache Netbeans 18
Libraries	Swing Sql Connector

Table 1 . System Requirements

## Chapter 6:

### Project Design

In your outdoor adventure and trekking platform, users start by exploring various trekking options, where they can personalize their trek selection based on their preferences. They can either join treks organized by experienced leaders or create their own if they are experienced trekking professionals. For those who join a trek, they can access comprehensive information about the trek, including trail descriptions, on the information page. Additionally, users can update and manage their personalized trekking profiles, showcasing achievements through the "My Profile" feature. To ensure a smooth and safe trekking experience, a "Gear Selection Page" provides a list of necessary gear available for rent for different expeditions. Leaders who choose to create a trek can efficiently organize and lead the trek within the app, while those in need of gear can rent it directly from the platform. This comprehensive flowchart outlines how users can seamlessly interact with your platform to enhance their outdoor trekking experiences.

1. Define project goals and objectives.

The primary goal of Trek Mosaic is to enrich the lives of trekkers by providing a holistic platform. Its objective is to streamline itinerary planning, deliver in-depth trek details, simplify trail selection, curate comprehensive trek information, and provide appropriate gear recommendations.

2. Conduct initial market research and gather user needs.

Before developing the Trek Mosaic platform, we conducted extensive market research to understand the needs and preferences of our target audience

3. Develop the system architecture and database design.

A well-structured database design was created to efficiently store and retrieve data related to trekking trails, user profiles, and trek details, ensuring seamless performance and data management.

4. Perform front-end and back-end development.

The development phase of Trek Mosaic involved creating the user-friendly front-end interface using Java Swing and the back-end logic in Java

This dual development approach ensures a seamless user experience while managing complex functionalities and data operations behind the scenes.

5. Implement features, database functionality, and user interface

During the implementation phase, features like Trek Info, Create Trek, Join Trek, My Profile, Information Page, and Gear Selection Page were meticulously integrated into the platform. Database functionality was also fine-tuned to ensure efficient data storage, retrieval, and management.

6. Address any identified bugs and issues to improve system performance:

Continuous improvement and bug-fixing efforts have been an integral part of the development process, ensuring that Trek Mosaic operates seamlessly and offers a high-quality user experience.

Software design for the AI Fitness Trainer involves the systematic process of defining the software's structure and behavior, ensuring it aligns with user requirements. This high-level design creates a blueprint for translating abstract requirements into specific data and functionalities. The interface design encompasses how the software communicates internally, with external systems, and with user behaviors, ensuring seamless interactions and userfriendly experiences.



## User End Interface

Here we will see the real time GUI PAGES in full display and User end interface on how it would be visible to user and flow of the project

### 1) Main Dashboard

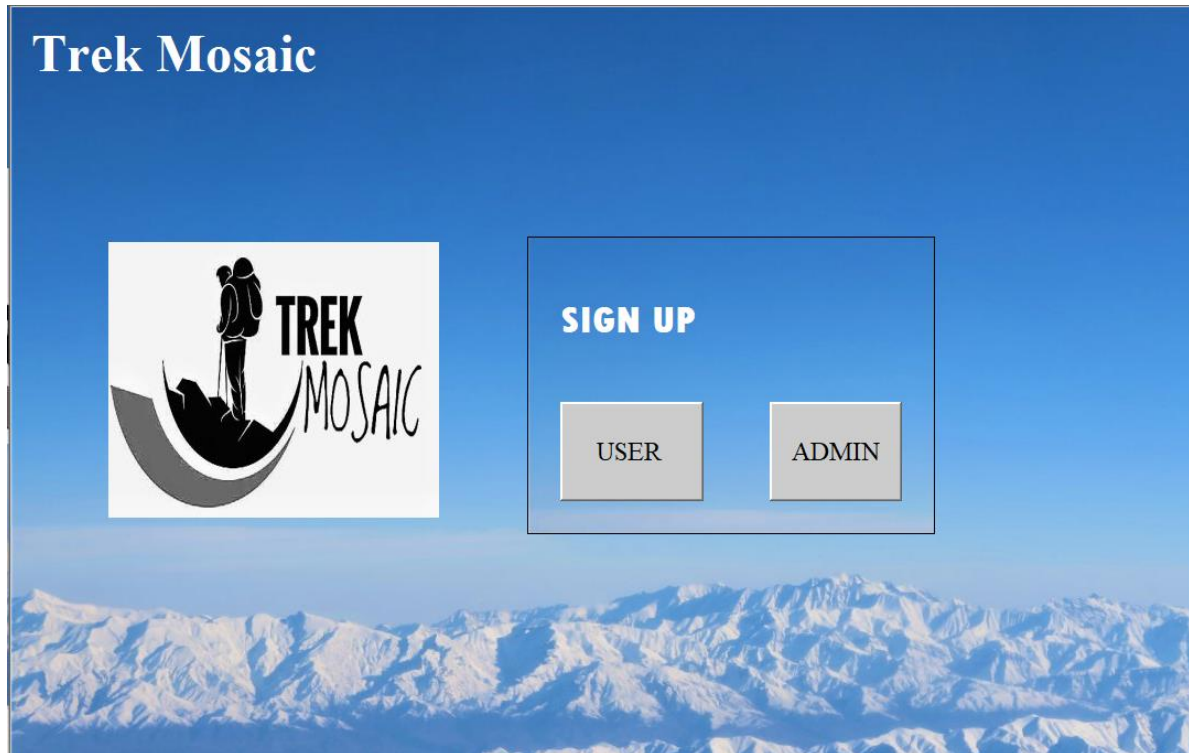


Figure 2 – Main Dashboard

As shown in figure 2 first User will be prompted to choose among the two selections using buttons i.e. USER section or ADMIN section, generally a new user will go to USER section to access its functionalities, After clicking USER button the User Dashboard opens up :

## 2) User Dashboard

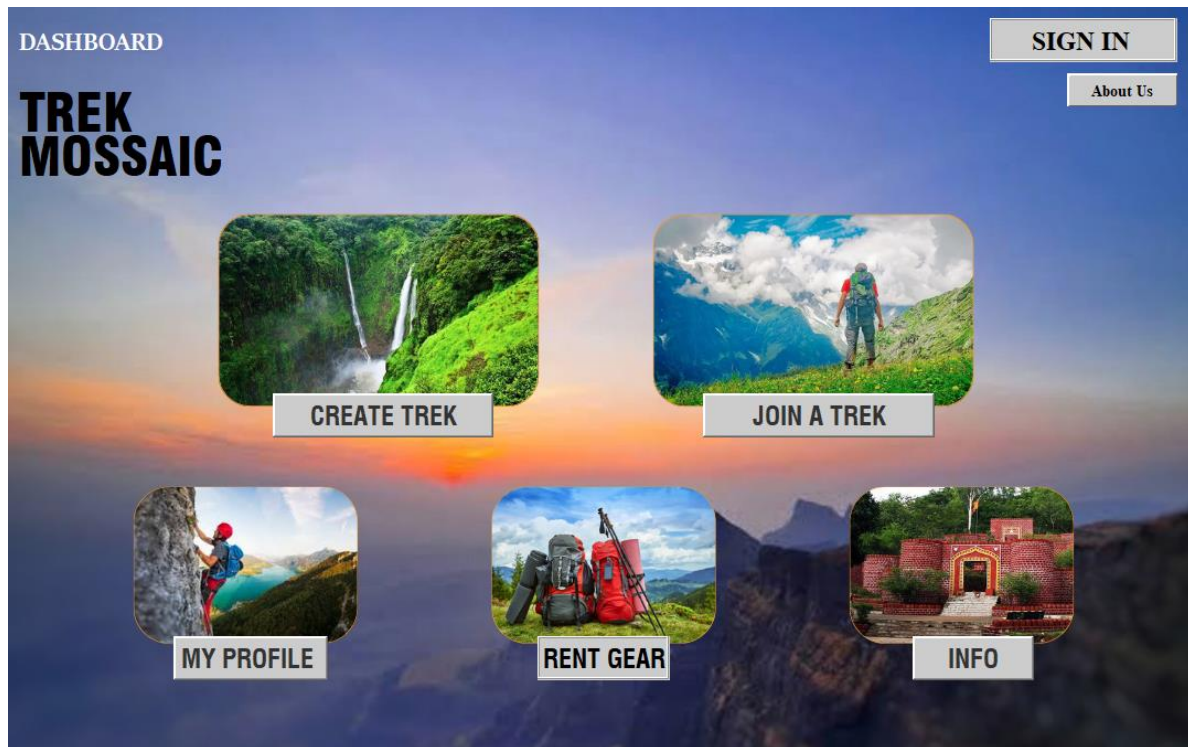


Figure 3 - User Dashboard

As shown in figure 3 the user will see once the user button is clicked, as seen the features and functionalities of the project is prompted directly to user which tempts user to click around and provides idea of what this project is gonna be about but expect for the INFO button none of the features are accessible for a non-registered user, USER will be asked to login/register to continue in order to access these features properly. hence finally the user clicks the SIGN IN button to actually try to have access to features.

### 3) Login and register Page



The screenshot shows a login page with a blue background featuring a mountain range. On the left is a logo with a hiker silhouette and the text "TREK MOSAIC". On the right is a white "Login" box containing fields for "Username" and "Password", a "Sign in" button, and a "Create an account" button. A "HOME" button is located at the bottom right of the page.

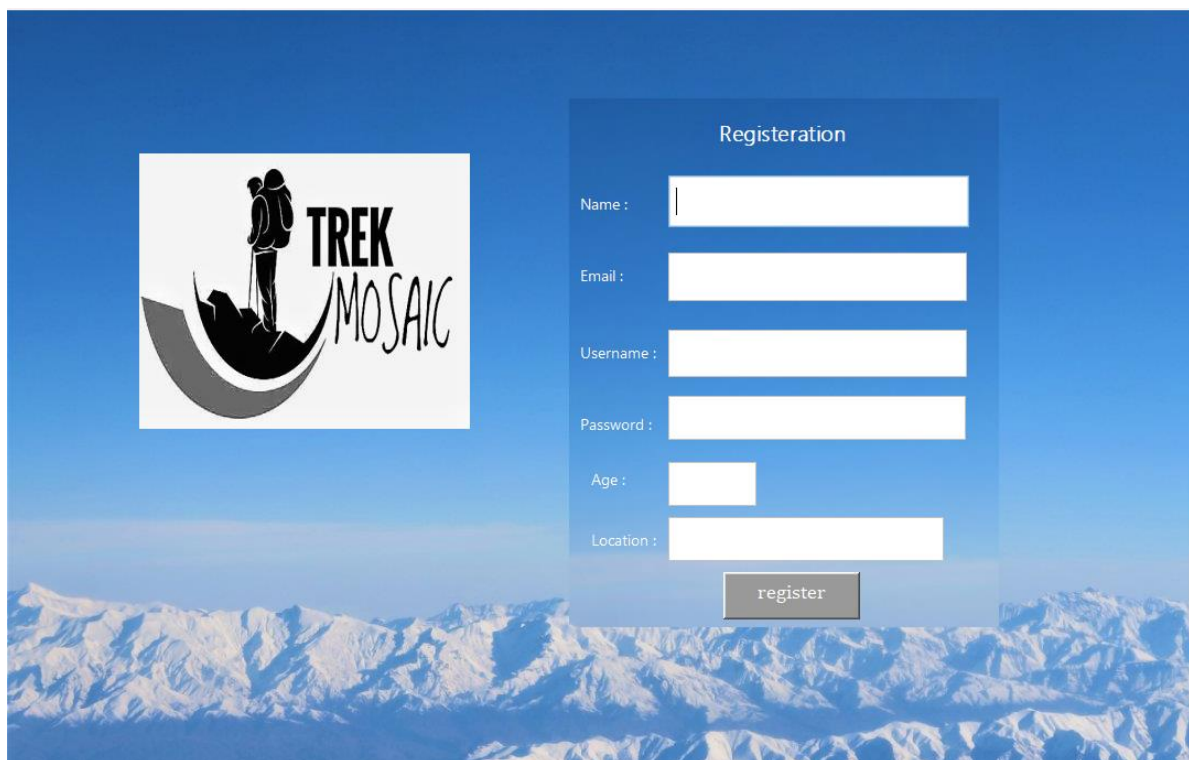
**TREK MOSAIC**

**Login**

Username :

Password :

Figure 4a – Login Page



The screenshot shows a registration page with a blue background featuring a mountain range. On the left is the same "TREK MOSAIC" logo. On the right is a white "Registration" box containing fields for "Name", "Email", "Username", "Password", "Age", and "Location", followed by a "register" button.

**TREK MOSAIC**

**Registration**

Name :

Email :

Username :

Password :

Age :

Location :

Figure 4b - Register page

As Shown in Figure 4a User clicks on the SIGN IN button, login page pops up if the user is visiting again and has registered in the past the user has to enter correct username and password details in order to sign in successfully, if the user is visiting for the first time then the user has to enter their details and then LOGIN successively by entering correct details as shown in figure 4b. After being Signed in User will get prompt of being signed in successfully and after going back user will be able to access nearly all the features which user was once unable to access back then (except CREATE TREK feature). Now user can say access JOIN trek feature to have all the publicly available treks at their disposal

#### 4) JOIN TREK page

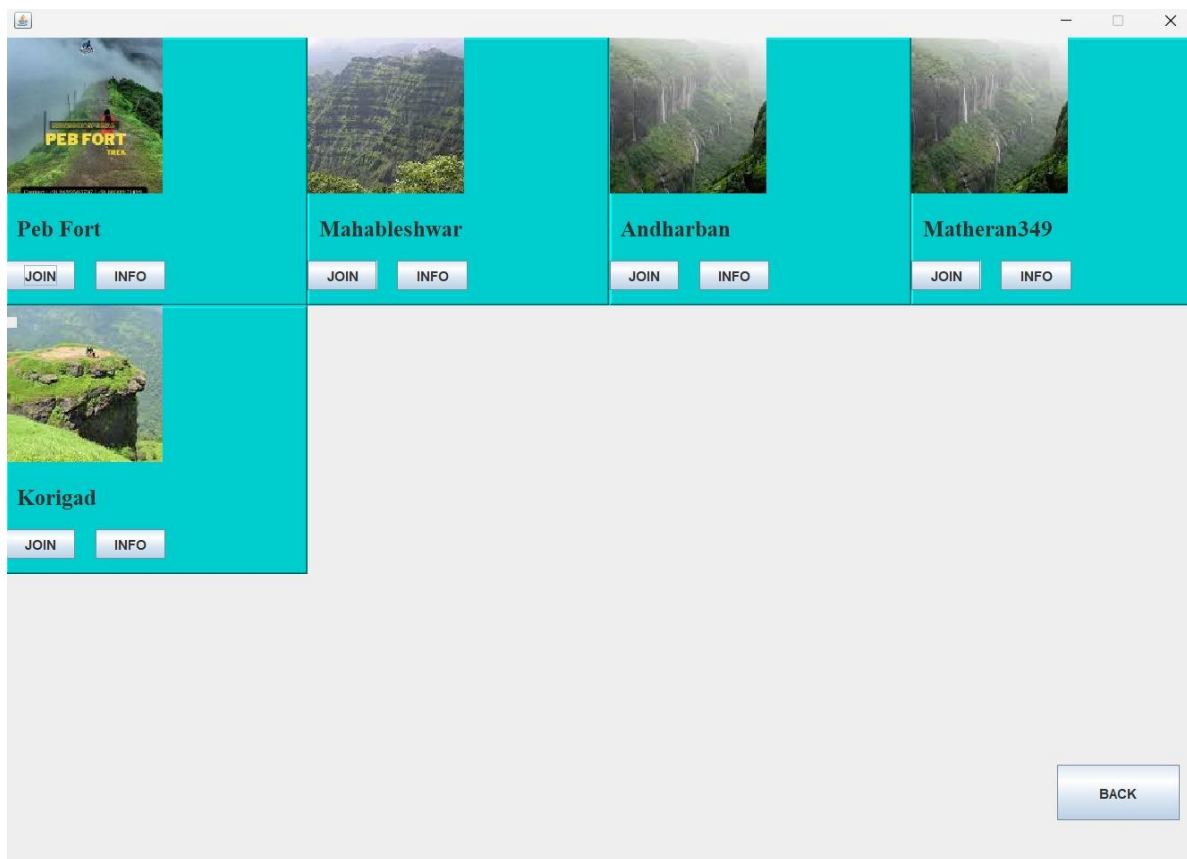


Figure 5–Join Trek Page

After clicking the button JOIN trek in dashboard, as shown in figure 5 it is displayed to user where user can have all the available publicly created treks with their name and their profile image with TWO options JOIN and INFO, all these treks are dynamically being added through the database, if user wants further info in order to join the trek and goes to JOIN trek then user will be displayed more information about trek.

## 5) Trek details : INFO page

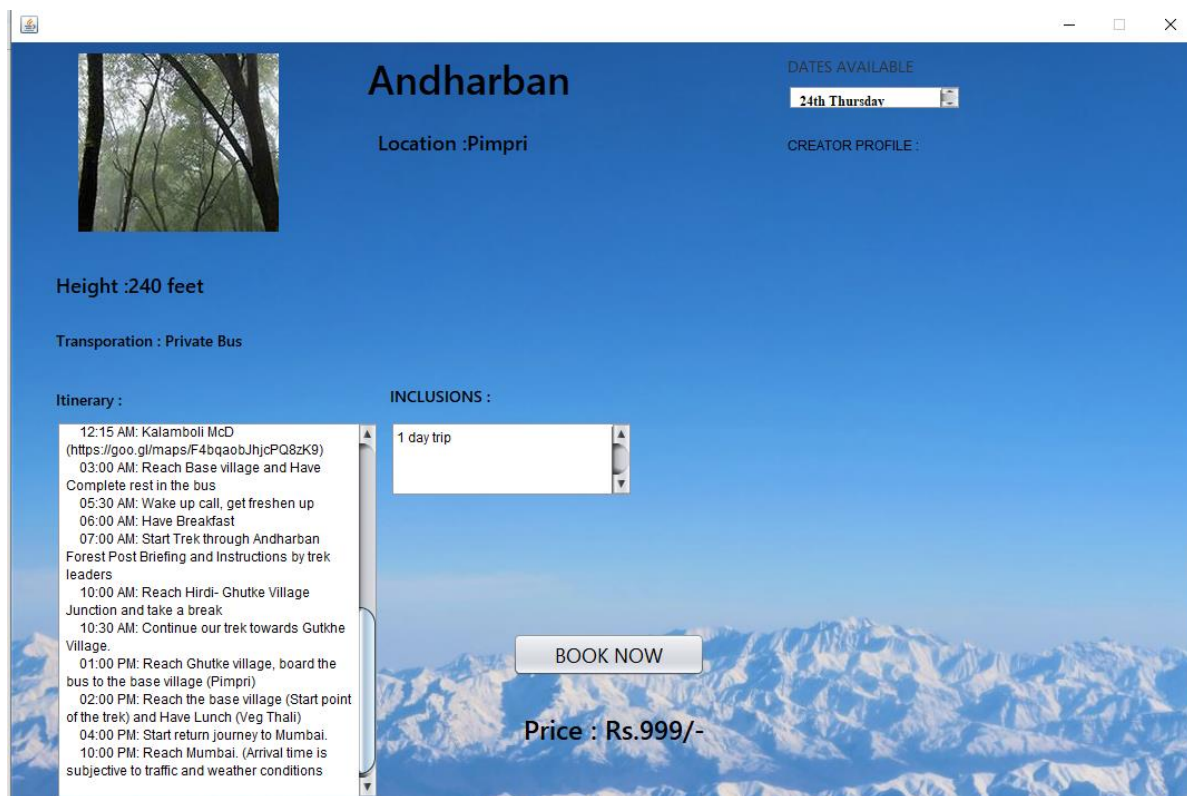


Figure 6 – Trek details (Information page)

As shown in figure 6 the Join Trek Feature we have all the details about the itinerary of the trek as well as the inclusions and exclusions provided by the users, and other location like height, and transportation of the trek, it also has a BOOK NOW button to confirm the slot of the user to join this trek, respectively user can go BACK to the trek page.



## 6) Trek Info Page

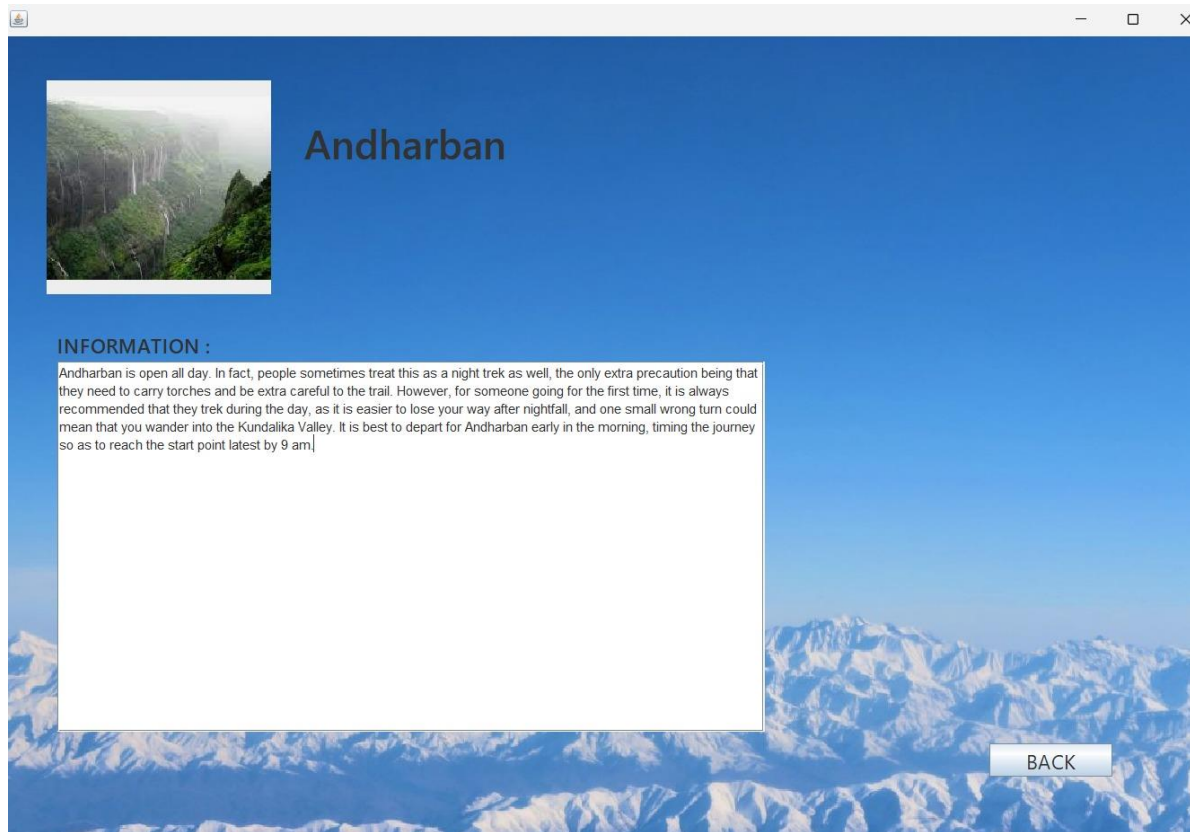


Figure 7 – Trek details (Information page)

As shown in figure 7 Trek Info Page displays the information about the trek which is given by the one who creates the trek, where it displays indepth general info about the trek and its history about the trek, it is the information display page.

### 1) Dashboard info page :

The info page in the dashboard has a similar interface as the join a trek page expect there is no join button and has only INFO button (not JOIN button) which again displays the same info that user can access through the JOIN A TREK button but expect that this feature is available to all registered as well as non registered users who can view it without logging in and registering just to get general info about the trek

## 7 ) : RENT GEAR Page

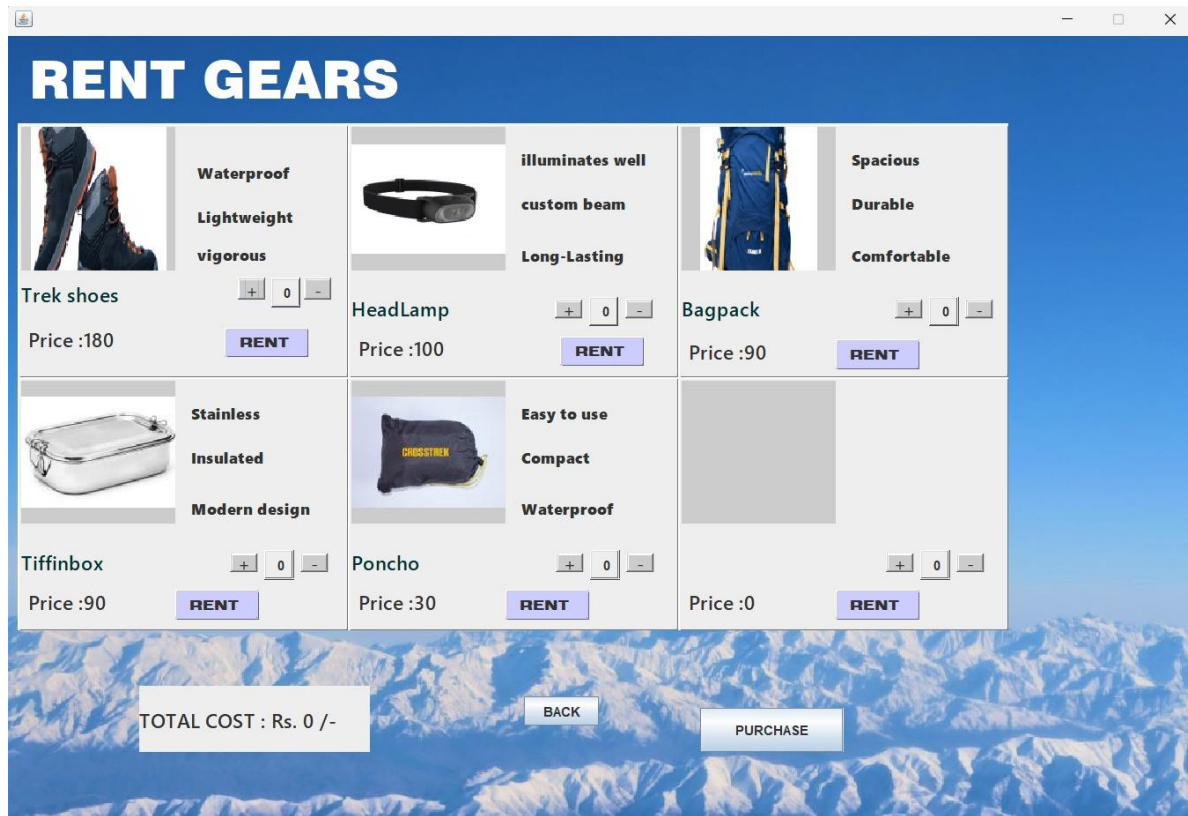


Figure 8 Rent Gear Page

The "Rent Gear" page is exclusively accessible to registered users. Here, users have the privilege to peruse an assortment of gear curated and added by the administrator. Users can easily browse through the available gear, evaluate its features (presented with intuitive plus and minus icons), and consider their suitability for their specific needs and intended usage. Each piece of gear is accompanied by a prominent "RENT" button, allowing users to effortlessly add the selected items to their shopping cart. As users select gear, the platform dynamically calculates the total cost, ensuring full transparency in the pricing process. Users have the option to conveniently review their selections before proceeding to finalize their purchase.

## 2) PROFILE PAGE

MY PROFILE

VERIFICATION STATUS :

name : Mohini

Age : 19

Location : Thane

VERIFY PROFILE

Upload Picture

About me :

EDIT

test

Connect with me :

instagram :

ADD LINKS

HOME

Figure 9 – Profile Page

As shown in figure 9 The "Profile" feature is an integral component of the user experience on the platform, offering a comprehensive overview of a user's identity and activity. It serves as a personal dashboard for users to manage and showcase essential information, including their name, location, and age, which they provided during the registration process.

**User Information Display:** The user's name, location, and age are prominently displayed, offering a quick snapshot of their identity. This information not only facilitates interaction and engagement with other users but also enhances the sense of community within the platform.

**Trek History - JOINED Treks and MY TREKS:** The "Profile" page incorporates two essential sections, "JOINED Treks" and "MY TREKS." These sections provide a comprehensive record of the user's trekking history. "JOINED Treks" displays a table or list of all the treks that the user has participated in, complete with details such as trek names, dates, and locations. On the other hand, "MY TREKS" showcases treks organized or initiated by the user. This feature not only allows users to reminisce about past adventures but also acts as a reference for future trekking plans.

**About Me:** The "About Me" text area offers users a personal space to express themselves. It's an open canvas where users can describe their interests, passions, trekking experiences, and any other information they want to share with the community.



This section adds depth to the user's profile and helps other users get to know them on a more personal level. Instagram Link: While this feature displays a static text label for the Instagram link, it provides a convenient way for users to showcase their Instagram presence if they wish to do so. It allows users to link their Instagram profile to their "Profile" page, which can offer a more visual insight into their trekking experiences, hobbies, and interests

If USER has to be able to create treks, then they have to VERIFY their profile inside the VERIFY button.

### 3)VERIFICATION PAGE

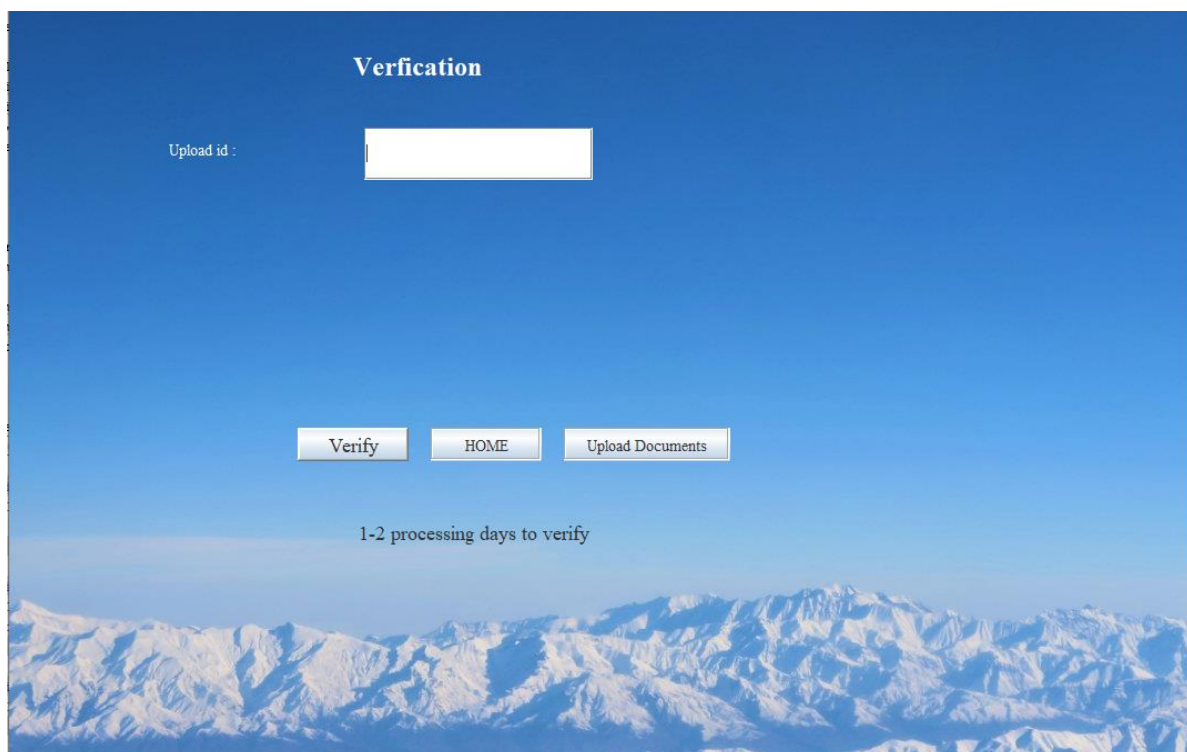


Figure 10 – Verification Page

The "Verification Page" as shown in figure 10 is a pivotal component of the platform's trust and security framework. This page allows users to submit their identification documents for verification, ensuring the authenticity and reliability of their profiles. Here's an in-depth explanation of the feature within the verification page:

#### UPLOAD ID Text Field:

The "UPLOAD ID" text field serves as a clear instruction for users, prompting them to submit their identification documents for verification. Users are expected to provide a government-issued ID, such as a driver's license or passport, to prove their identity.

#### UPLOAD DOCUMENT Button:

The "UPLOAD DOCUMENT" button is a prominently displayed call-to-action element. When users click on this button, it initiates the process of submitting their identification documents for verification. It signifies the critical step in the verification process.

File Selection Popup (JFileChooser):

After clicking the "IMPORTANT UPLOAD DOCUMENT" button, a pop-up window, typically implemented using a JFileChooser, appears. This window allows users to browse their local device for the identification document they wish to upload. Users can select an image file (e.g., JPEG or PNG) of their identification document by navigating through their local file system. The pop-up window provides a user-friendly interface for selecting files, ensuring a seamless and intuitive experience.

Document Submission and Database Storage:

Once users have selected the appropriate identification document, they can confirm their choice. Upon confirmation, the selected image file is uploaded to the platform's database. The submitted document is securely stored within the platform's database, accessible to the system's administrators for the verification process.

Admin Verification Process:

The uploaded documents are then made available to the platform's administrators, who are responsible for verifying the authenticity of the submitted documents. Administrators review the documents and cross-reference the information with the user's profile details to ensure accuracy and authenticity. Based on the verification results, administrators can approve or reject the user's profile for further use within the platform.

Now we will look into inner workings of ADMIN page and how how ADMIN can verify users.

#### 4) ADMIN DASHBOARD

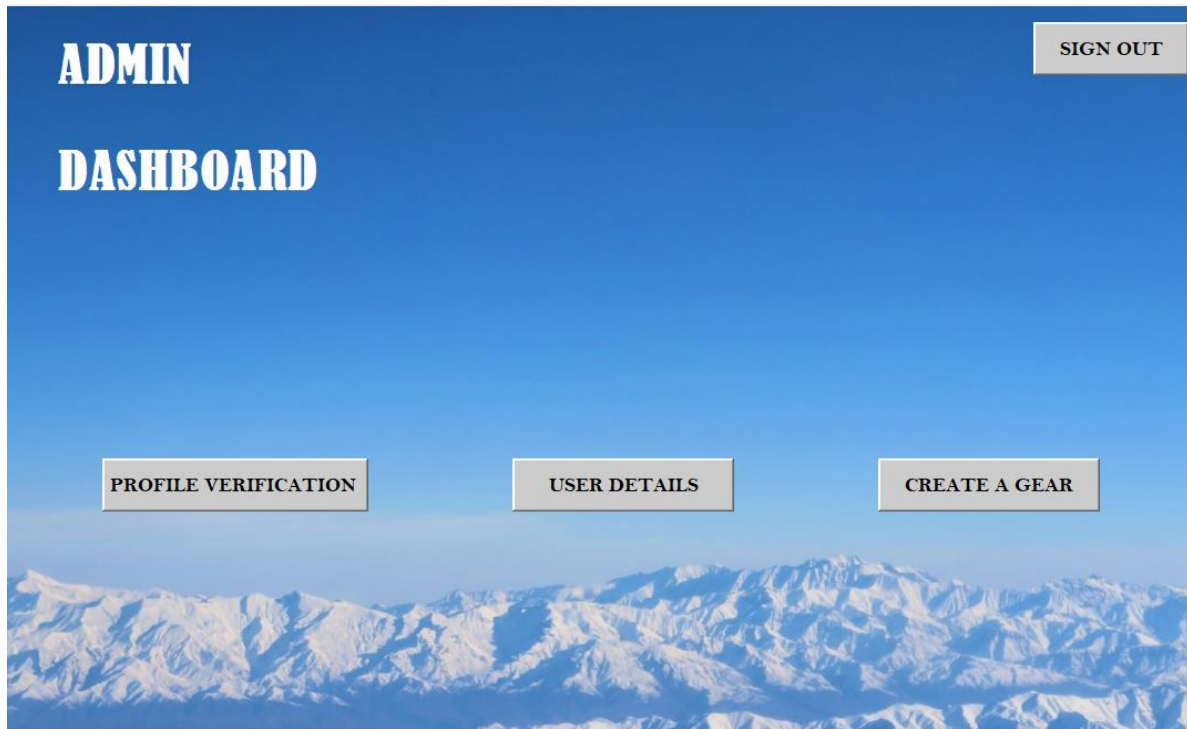


Figure 11 – Admin Dashboard

After Logging in Admin login using admin key username and password ADMIN has three options as shown in figure 11 - For Profile Verification, User Details and CREATE A GEAR option.

#### 5) PROFILE VERIFICATION

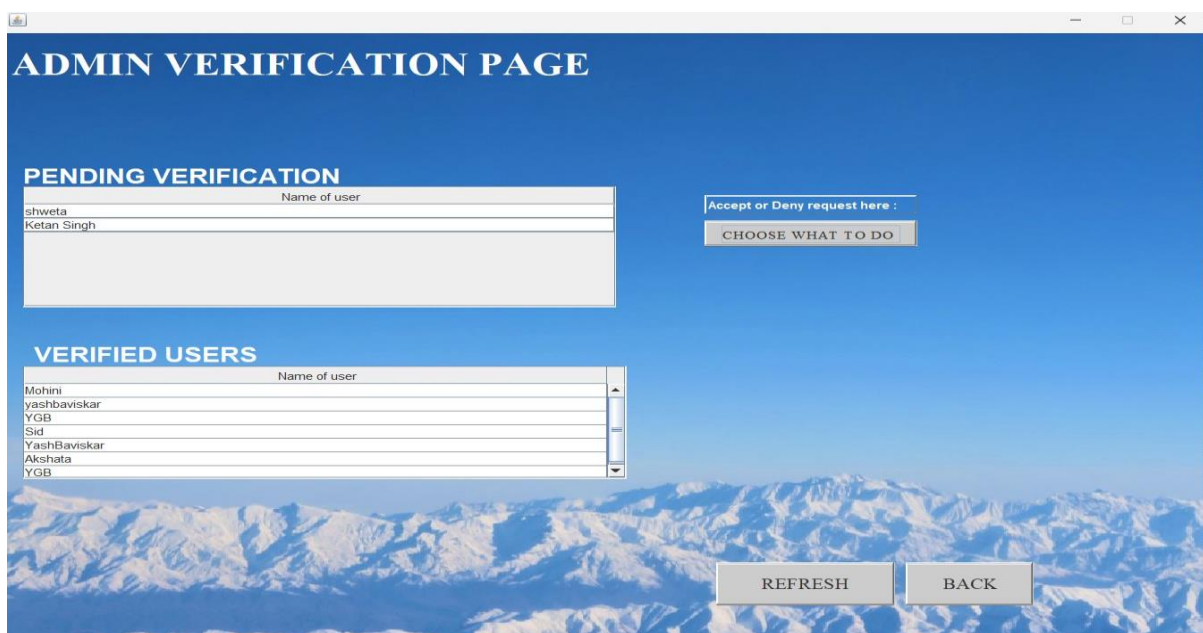


Figure 12 – Profile Verification

Profile verification Page basically has table of users which have uploaded documents for verification and had sent the upcoming status to admin in order to verify the profile , it has two tables, one for PENDING VERIFICATION and another one for VERIFIED USERS where after verification users will be able to create the trek, after clicking on CHOOSE WHAT TO DO button whichever user is on the top of the table will have verification popup for admin to approve or deny

5) Page 13 : Verification Popup Page

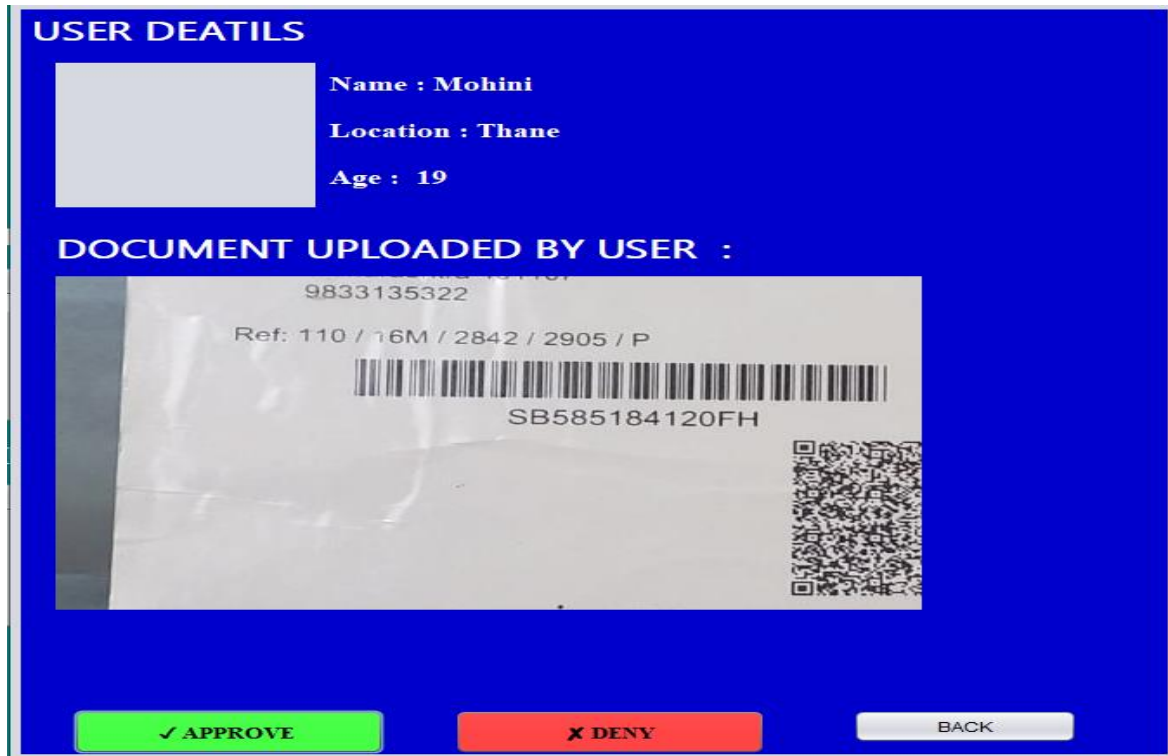


Figure 13 – User document and details for verification

Whatever user had given details in the registration for profile and whatever document the user had uploaded for verification has been fetched here in front of the admin and the admin can approve the verification or DENY the user the ability to create trek, ADMIN if approved, the table will be updated and the user will be moved to APPROVED Users. and hence USER can now create TREK.

## 6)Admin User Details Page

Registered User Deatils					
Name	username	email	age	location	trek enrolled
Yash Baviskar	yashbav	Mumbai	19	Mumbai	
sakshi	sakshe27	ghar	19	ghar	
priyanka	bptp	goregaon	28	goregaon	
Shaurya Mahajan	sharayu	Thane	19	Thane	
Mohini	mohinideore	Thane	19	Thane	
Yash	yashbaviskar	Mumbai	19	Mumbai	
akshata	akshatak	Thane	19	Thane	
Mohini	mohini	Thane	19	Thane	

Details about treks			Gear Details				
name	location	price	Name of gear	feature1	feature2	feature3	price
Mahableshwar	Satara	3000	Trek Shoes	Robust	Waterproof	Lightwiegth	180
Peb Fort	Maldunge	1300	Trek Shoes	Robust	Waterproof	Lightwiegth	180
Devkund	Pune	1400					
Andharban	Pimpri	999					

Figure 14 –Admin User Detsils

In USER PROFILE button, ADMIN will get overall details of the trekmosaic application which contains three tables each containing different types of info like - All the registered users and their registered info is being displayed here, then all the treks in the database which re publicly available for users to join are also available here along with name, location and price of it, and ADMIN created gear which is displayed to user to rent gear is also available here , the table shows the gear info of the available gear.

6) Page 15 : CREATE GEAR PAGE :



Figure 15 – Create a gear page

Create gear page helps admin add gear to users in order for them to rent it adds it to database, it has fields like NAME, FEATURES (3 MAXIMUM) and PRICE and also the IMAGE that ADMIN has to upload in order for it to be displayed to USER.

7) Page 16 : Create Trek (For registered and Verified Users by Admin)

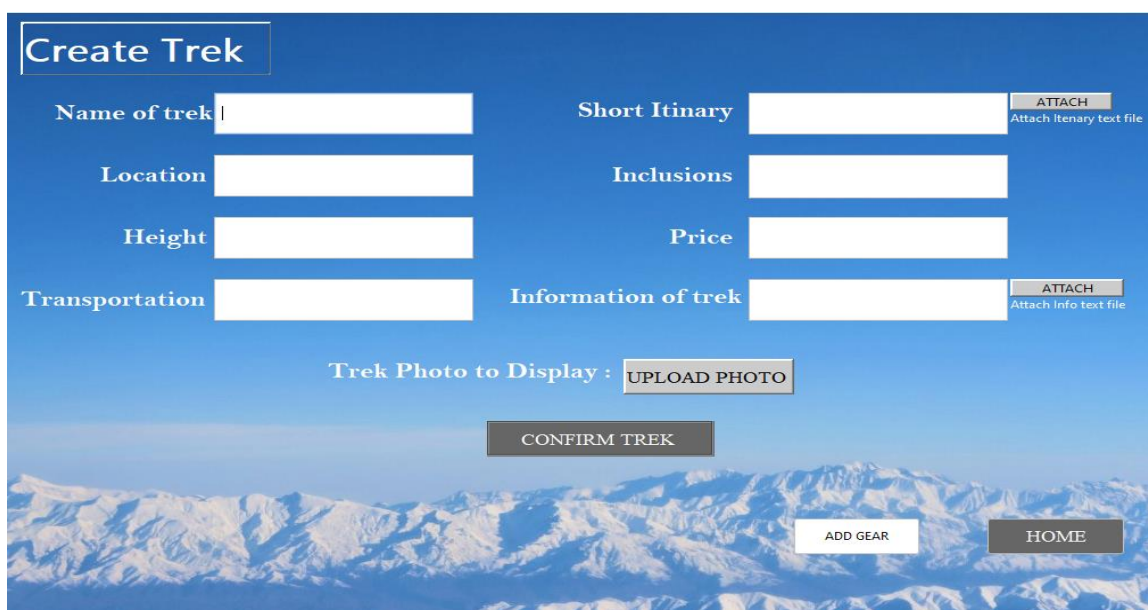


Figure 16 - Create a trek



The "Create Trek" page is an exclusive feature reserved for registered and verified users, ensuring a high level of authenticity and credibility in the platform's trek offerings. This page empowers users to craft their own treks, providing detailed information for potential participants. Here's a concise overview of the "Create Trek" page:

**User Eligibility:** Only registered and verified users can access and utilize the "Create Trek" page, guaranteeing the reliability of the trek details provided.

**Trek Details: Trek Name:** Users input the name of their trek, which serves as the primary identifier.

**Location:** The location of the trek is specified, offering potential participants a glimpse of the adventure's destination.

**Height/Altitude:** The altitude or height of the trek is mentioned to provide trekkers with a sense of the challenge and environment they can expect.

**Transportation:** Users can indicate the mode of transportation to and from the trek location, assisting participants in making logistical arrangements.

**Itinerary:** The itinerary can be attached as a text file or manually typed out, outlining the day-by-day plan and activities during the trek.

**Inclusions:** Users list what is included in the trek package, such as accommodations, meals, guides, and more.

**Price:** The cost of the trek is provided, giving participants a clear understanding of the financial commitment.

**Additional Information:** Similar to the itinerary, users can attach or manually input any extra information they wish to convey to potential participants.

**Image Attach Option:** Users have the option to attach images that showcase the trek, its scenery, and highlights. These images serve as a visual preview of the adventure.

**Dashboard INFO Page:**

The trek details, including name, location, altitude, and inclusions, are displayed on the user's dashboard under an "INFO" button. This allows users to easily revisit and edit their trek listings.

#### JOIN A TREK Info Button:

When other users access the "JOIN A TREK" page, they can view the available treks. The trek details, including the trek name, location, altitude, and inclusions, are displayed alongside an "INFO" button for each trek.

#### Join Button:

For each listed trek, users can click the "JOIN" button, which enables them to sign up for the trek. The trek details, including text fields provided by the trek creator and attached images, are fetched from the database to provide participants with comprehensive information.



## Chapter 7

### Project Scheduling

In the context of the Trek Mosaic, scheduling plays a vital role in organizing and managing the development process as shown in table 2 . The project schedule comprises a comprehensive list of milestones, tasks, and deliverables, serving as a roadmap for the project's execution. It outlines the timeline for task completion, allocation of resources and activities.

Table 2 : Timeline Chart

Sr. No	Group Member	Time duration	Work to be done
1	Yash Baviskar	1 <sup>st</sup> week of August	<u>Topic Selection and basic Prototype</u> Git Repository Initialization and Getting Familiar with Basic Java
		2 <sup>nd</sup> week of August	Detail Prototype and Started Creating First GUI
2	Mohini Deore	3 <sup>rd</sup> week of August	Creating All Modules and Pushing Final Prototype to GIT and started working on backend ,
3	Akshata Khandekar	1st week of October	Started working on backend, learned mysql for database connectivity,and connected login ,registration page to database
4	Sharayu Mahajan	By the end of October month	Applied backend logics to make all pages dynamic and connected to databases and gave final touches to gui and overall project.

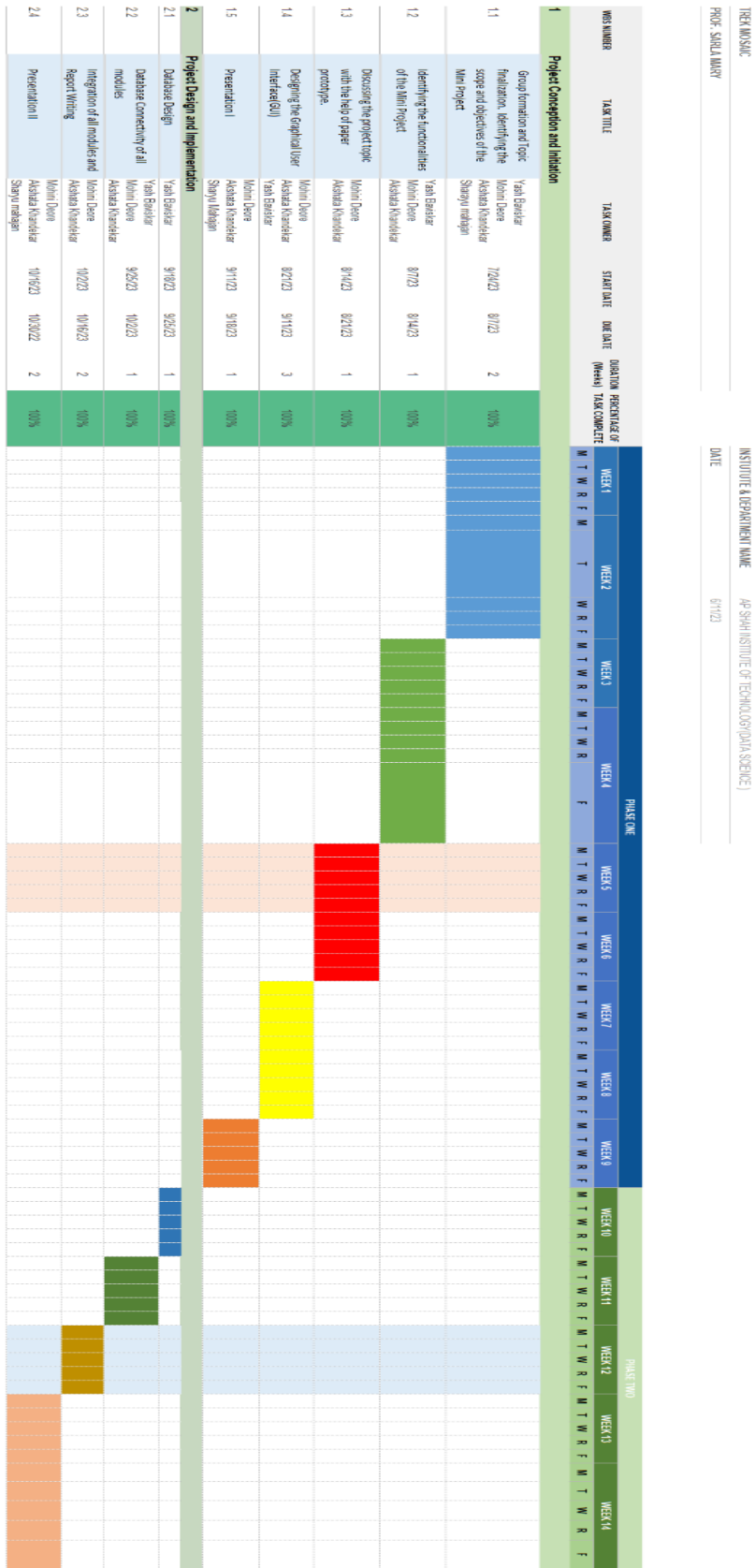


Figure 17 :Gant Chart of Trek Mosaic

To visualize this schedule, a Gantt chart is employed as shown in figure 17, providing a graphical representation of task durations, start and finish dates, and interactivity. Additionally, Gantt charts help illustrate the project's work breakdown structure and the relationships between activities, ensuring effective project management and progress tracking.

Here in the above figure, the rows of the chart contain the task titles such as the project conception and initialization as well as the project design and implementation which in subdivision contains the group formation, topic finalizing, prototype, GUI designing, backend implementation etc. The columns contain the duration of the task completed, percentage of work completed, number of weeks required to complete a particular task, the specific dates, the team members who contributed towards the completion of tasks

The detailed explanation of the Gantt chart is explained below: The project conception and initiation task were executed by the month end around 26/10/23. The task of initiation included many more sub-tasks such as group formation and topic finalization which was performed during the 1 week of project initialization. The group formed included 4 members \_Yash Baviskar Mohini Deore Akshata Khandekar Sharayu Mahajan and the finalized topic was Trek Mosaic . Further, the upcoming week led to the task of identifying the scope and objectives of the mini projects.

The next sub-task was to identify the functionalities of the project which was done by the team members in a span of one week from 25/07/23 to 01/08/23. The discussion of the project topic with the help of a paper prototype was completed with equal contribution from all the group members within one week from 01/08/23-08/08/23.

The next task, Database Connectivity and functionalities of modules in the app were done by from 13/09/23 to 21/09/23. The Integration of all modules, user interfaces and report writing was completed by Yash Baviskar Mohini Deore Akshata Khandekar Sharayu Mahajan from 21/09/23 to 28/09/23. The preparation of final presentation II work was equally shared by all the group members in the time of 2 weeks from 4/10/23 to 26/10/23

## **Chapter 8**

### **Conclusion**

Trek Mosaic stands as a trailblazing solution, poised to reshape the world of trekking and outdoor adventures. With an database of trekking trails enriched with comprehensive information, this platform empowers trekking enthusiasts, hikers, and even general tourists to embark on thrilling journeys with confidence and excitement. Moreover, the ease of creating and joining treks, led by experienced professionals and fellow enthusiasts, fosters a vibrant community of nature lovers, encouraging the sharing of knowledge and unforgettable experiences.

As we envisage a world where the great outdoors are accessible to all, Trek Mosaic's comprehensive approach resonates with not only those who are passionate about trekking but also with student and family groups seeking educational and bonding experiences amidst nature's wonders. By providing valuable trek information and gear recommendations, our platform ensures that all users, regardless of their trekking experience, can enjoy the world's most beautiful trails with safety, convenience, and the promise of lasting memories.

With a commitment to transforming the trekking experience, we are set to bridge the gaps in connectivity, information access, and gear recommendations, bringing nature's wonders closer to all who dare to explore. Trek Mosaic is more than just a platform; it's an embodiment of our vision to enrich lives, foster community, and empower outdoor enthusiasts to embark on adventures of a lifetime.

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