SAFARNAMA

A PROJECT REPORT

Submitted to

ASSAM DON BOSCO UNIVERSITY

by

Raj Roy

DC2022BCA0029

Aman Sah

DC2022BCA0025

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DC2022BCA0035

in partial fulfilment for the award of the degree

of

BACHELOR OF COMPUTER APPLICATIONS

DEPARTMENT OF COMPUTER APPLICATIONS

SCHOOL OF TECHNOLOGY, ASSAM DON BOSCO UNIVERSITY

AZARA, GUWAHATI 781 017,
ASSAM, INDIA.

BATCH (2022-2025)

CERTIFICATE

This is to certify that the Project Report entitled "**SAFARNAMA**" submitted by **RAJ ROY (DC2022BCA0029), AMAN SAH (DC2022BCA0025)** and **BISANT CHOWDHURY (DC2022BCA0035)** to the Assam Don Bosco University, Guwahati, Assam, in partial fulfilment of the requirement for the award of Degree of Bachelor of Computer Applications is a bonafide record of the mini project work carried out by them under my supervision during the semester July 2024 to December 2024.

Internal Guide:

Dr. Vijay Prasad
Assistant Professor (Selection)
Department of Computer Applications
School of Technology
Assam Don Bosco University.

CERTIFICATE

This is to certify that the Project Report entitled "**SAFARNAMA**" submitted by **RAJ ROY (DC2022BCA0029), AMAN SAH (DC2022BCA0025)** and **BISANT CHOWDHURY (DC2022BCA0035)** to the Assam Don Bosco University, Guwahati, Assam, in partial fulfilment of the requirement for the award of Degree of Bachelor of Computer Applications is a bonafide record of the mini project work carried out by them during the semester July 2024 to December 2024.

Dr. Gypsy Nandi
Head of the Department,
Department of Computer Applications
Date: ……

EXAMINATION CERTIFICATE

This is to certify that **RAJ ROY, AMAN SAH** and **BISANT CHOWDHURY** bearing Roll Numbers **DC2022BCA0029, DC2022BCA0025** and **DC2022BCA0035** respectively of the **Department of Computer Applications** has carried out the mini project work in a manner satisfactory to warrant its acceptance and also defended it successfully.

We wish them all the success in their future endeavors.

Examiners:

01. Internal Examiner:

02. Internal Examiner:

DECLARATION

We hereby declare that the mini project work entitled "**SAFARNAMA**" submitted to the Assam Don Bosco University, Guwahati, Assam, in partial fulfilment of the requirement for the award of Degree of Bachelor of Computer Applications is an original work done by us under the guidance of **Dr. Vijay Prasad (Assistant Professor, Computer Application)** and has not been submitted for the award of any degree.

(Signature of the student)

RAJ ROY
DC2022BCA0029
Department of Computer Applications

(Signature of the student)

AMAN SAH
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ACKNOWLEDGEMENT

We would like to express our sincere gratitude to the Department of Computer Applications, School of Technology, Assam Don Bosco University, for providing us with the opportunity to undertake this project. The continuous support and encouragement from the department have been pivotal in bringing *Safarnama* to fruition.

We are especially thankful to Dr. Gypsy Nandi, Head of the Department, for her unwavering guidance and for fostering an environment of innovation and learning. Our heartfelt thanks extend to Dr. Abhijit Bora, Project Coordinator, for his dedicated oversight, valuable feedback, and for ensuring that we upheld the highest standards in our work. We are also deeply indebted to our project guide, Dr. Vijay Prasad, whose expertise, thoughtful suggestions, and constructive input have been instrumental in addressing challenges and refining the project.

Additionally, we are grateful to our peers for their cooperation and to our family members for their constant support and encouragement throughout this journey. The experiences and insights gained from this project will undoubtedly serve as a solid foundation for our future professional aspirations.

ABSTRACT

Safarnama, a platform with the tagline “Har Kadam Par Prakriti Ka Saath” (With Nature at Every Step), is designed to revolutionize tourism by promoting sustainable travel practices and fostering a deep connection with nature. The platform addresses critical gaps in existing tourism systems, such as the lack of comprehensive resources, insufficient awareness about tourism, and subpar user experience. By integrating features like detailed destination pages, community forums, educational resources, and a gallery showcasing hidden gems, Safarnama offers a unified solution for travelers. Its responsive design ensures accessibility across devices, while user-generated content adds authenticity. This innovative platform aspires to educate users, support local communities, and distribute tourism more evenly, ultimately transforming travel into a purposeful and environmentally conscious experience.

KEYWORDS: *Sustainable Tourism, Travel Platform, Community Engagement, Responsive Design, Environmental Awareness.*

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ABBREVIATIONS

COCOMO	Constructive Cost Model
KLOC	Thousand Lines of Code
UX	User Experience
UI	User Interface
PM	Person-Months
OS	Operating System
WBS	Work Breakdown Structure
TB	Terabyte
MBPS	Megabits Per Second

CHAPTER 1 : INTRODUCTION

1.1. Project Title:

Safarnama: "Har Kadam Par Prakriti Ka Saath**".**

The title "Safarnama" means "Journey" in Hindi, with the tagline "Har Kadam Par Prakriti Ka Saath" (With Nature at Every Step) emphasizing the connection between nature and responsible travel. The name resonates with Indian travellers, reflecting the platform's aim to promote sustainable tourism, where every journey is purposeful and sensitive to nature and local communities.

1.2. Objective:

1.2.1. Create a Comprehensive Travel Planning System:

Safarnama aims to build a site that allows tourists to book packages. The system provides a single platform for travellers to customize trips, filtering destinations by interests like wildlife and hiking.

1.2.2. Build a Community-Driven Environment:

Safarnama aims to foster a vibrant community of tourists by encouraging user-generated content, such as travel experiences, reviews, and sustainability tips. The platform will feature forums and discussion boards, allowing travellers to share knowledge and support one another.

1.2.3. Integrate Educational Resources:

Education is a top priority for Safarnama, aiming to raise awareness about sustainable tourism and its ecological impact. The platform will offer a range of resources, including articles, blogs, videos covering topics like conserving natural habitats, reducing carbon footprints, and supporting local communities.

1.2.4. Promote Off-beat Eco-Tourism Areas:

Safarnama aims to highlight lesser-known tourism destinations that are often overlooked by mainstream platforms. By dynamically updating content based on user inputs and environmental data, Safarnama will promote these hidden gems, distributing tourism more evenly and reducing the pressure on popular spots. Users can contribute by sharing their discoveries of off-beat locations, which will be featured on the platform.

1.2.5. Connecting Travelers with Nature at a Deeper Level:

Safarnama aims to foster a deep connection between travellers and nature beyond recreation. The platform encourages travellers to appreciate the beauty of nature and take an active role in its preservation for future generations.

1.3. Existing System / Problem Statement:

The existing tourism platforms available in the market often have limitations that fail to address the growing demand for responsible and sustainable travel options. The primary issues with the current systems are:

1.3.1. Lack of a Comprehensive Platform:

Current tourism platforms in India are fragmented, focusing on specific services like accommodation booking or destination guides, leading to disjointed travel experiences.

Safarnama addresses this by offering an all-in-one solution that integrates destination information, community engagement, and educational resources into a single user-friendly platform.

1.3.2. Insufficient Awareness:

A significant barrier to tourism development is the lack of awareness among travellers about sustainability and their impact on the environment. Many do not realize the consequences of their actions on the ecosystems and current platforms often neglect to prioritize education.

Safarnama aims to address this gap with an education-focused approach. The platform offers accessible and engaging information on eco-tourism principles and tips for minimizing environmental impact.

1.3.3. Poor User Experience:

Many existing eco-tourism platforms suffer from outdated UX and UI, lacking the interactivity that modern travellers expect.

Safarnama addresses this by delivering a good user experience characterized by an intuitive and visually appealing design. The platform will feature a modern, responsive layout that adapts seamlessly to various devices, ensuring enjoyable interactions from anywhere, at any time.

1.4. Proposed Plan:

"Safarnama" proposes to address these gaps by implementing a platform with the following features:

1.4.1 Destination Pages:

Each tourism destination on Safarnama will feature dedicated pages for travellers. These pages will include:

- **Comprehensive Travel Guides**: Offering essential information about the destination, including its ecological significance and sustainable practices.
- **Travel Tips**: Providing advice on the best time to visit, accommodation, dining options, and suggested itineraries.

In addition to standard travel content, these pages will incorporate user-generated content such as reviews and photos, adding a personal touch and real-world insights into travel experiences.

1.4.2 Community Forum:

The community forum on Safarnama will serve as a platform for users to connect and share their tourism experiences and advice. Organized into categories such as destination discussions, travel tips, sustainable practices, and cultural experiences, reply to existing discussions, and share multimedia content like photos and videos.

This interactive space encourages active participation and knowledge sharing, making it an essential resource for both new and experienced tourists.

1.4.3 Educational Information Content:

Educational content in the Safarnama platform will provide users with the knowledge and tools needed to practice sustainable tourism. This content will range from the basics of tourism to in-depth discussions on specific environmental issues.

- **Articles and Blogs**: These will offer practical advice on topics such as reducing carbon footprints, selecting eco-friendly accommodations, and supporting local communities.
- **Visual Content**: Videos and info-graphics will present complex ideas in an accessible way, appealing to a broad audience.

1.4.4 Gallery:

The Safarnama gallery will serve as a source of inspiration and a valuable resource for travellers, showcasing stunning photographs and videos of key tourism sites across India. Users, professional photographers, and verified contributors will upload high-quality, authentic content that highlights the breathtaking beauty of these destinations.

Each gallery entry will include descriptions and location details to provide insights about the featured sites. Content will be organized into curated collections representing different themes, such as wildlife and landscapes, and updated regularly based on the latest trends and user contributions.

1.4.5 Responsive Design:

Responsive design ensures a seamless user experience across desktops, tablets, and smartphones. Given the reliance on mobile technology, the platform is designed to adapt to various screen resolutions and sizes, providing a consistent and user-friendly interface on all devices.

CHAPTER 2: FEASIBILITY STUDY

2.1. Technical Feasibility:

Technical feasibility refers to the availability of required technology and tools supporting its successful implementation. Hardware and software needs for development, deployment, and maintenance of the platform are addressed.

2.1.1. Hardware Requirements:

The hardware requirements play an important role in the smooth development, testing, and deployment of the Safarnama platform. These include:

- **Development Machines:**
  - Goal : Writing code, testing it and deploying.
  - Minimum Specs:
    - CPU: Intel i5 or AMD RYZEN 5.
    - RAM: 8GB.
    - Storage: 256GB SSD.
    - Network: Internet connection of at least 10 Mbps.

- **Backup Storage:**
  - Goal: Backup website and database.
  - Minimum across the board specs: .gz backup files daily/weekly/monthly.
  - A Minimum Specs: External Hardrives or Cloud Storage (min 1TB).
  - Justification: Backups save data and even recover systems in case of failures.

- **Networking Equipment:**
  - Purpose: Strong internet connectivity for smooth development.
  - Devices: Routers, switches and firewalls.

Table 2.1.1: Hardware Requirements Summary

Equipment	Purpose	Specifications
Development Machines	Coding and testing	Intel i5/AMD RYZEN 5, 8GB RAM, 256GB SSD, 10 Mbps internet
Backup Storage	Data backup	1TB cloud or external storage
Networking Equipment	Stable internet connectivity	Routers, switches, firewalls

2.1.2. Software Requirements:

Software requirements describe the programs, applications and platforms that will be needed to develop, deploy and maintain Safarnama website.

- **Operating Systems:**
  - For: developing and serving servers.
  - Supported OS: Windows 10/11 & Ubuntu (Linux).

- **Development Tools:**
  - Goal: To write and test the code.
  - Tooling: VS Code, Node.js (JavaScript runtime), Thunder Client.

- **Web Frameworks:**
  - Goal: Frontend design and implementation, Backend building.
  - Software: React.js (front-end), Express.js (back-end).

- **Database Management:**
  - Use: Save and control the data
  - Solution: MongoDB (Document-oriented database) for storing data.

- **Design Tools:**
  - Purpose: UI/UX design.
  - Software: Figma.
  - Rationale: These design tools contribute to developing UI/UX in a more intuitive manner and prettify it.

Table 2.1.2: Software Requirements Summary

Software	Purpose	Options/Tools
Operating Systems	Run development environments	Windows, Ubuntu
Development Tools	Write and test code	VS Code, Node.js, Thunder
Web Frameworks	Build front-end and back-end	React.js, Express.js
Database Management	Store and manage data	MongoDB
Design Tools	UI/UX design	Figma

2.2. Operational Feasibility:

Operational feasibility considers the viability of the project in terms of successful implementation and utilization within the current operational environment. It considers the required skills, support, and user acceptance for successful deployment.

2.2.1. Skills required:

- React.js: Building the frontend interface.
- MongoDB: For Database purposes.
- Node.js: To Handle Server-Side Operations, including Data Management, API handling, and Dynamic content generation.

2.3. Economic Feasibility

This step is all about determining economic feasibility, or in other words: making sure the project brings more value than what it costs. It includes analysing the costs of development, maintenance, and potential revenue generation, ensuring the project is financially viable.

2.3.1 COCOMO Model

COCOMO (Constructive Cost Model): cost with time — COCOMO is employed for the estimation of both equipment price and development duration. Given the values:

a=2.4, b=1.05 , c=2.5 , d=0.38

KLOC = 1.7

Effort (E):

$$E = a \times (KLOC)^b$$

Calculation Of Effort:

$$E = 2{\cdot}4 \times (1.7)^{1.05}$$

$$E \approx 4.2 \text{ Person-Months.}$$

Time Calculation:

$$T = 2.5 \times (4.2)^{0.38}$$

$$T \approx 4.2 \text{ Months}$$

Scope and resource adjustments may be required in order to maintain within a project timeline less than 4 months.

Table 2.3.1: COCOMO Model Summary

Parameter	Value	Explanation
a	2.4	Base productivity factor
b	1.05	Exponent for effort calculation
c	2.5	Base time factor
d	0.38	Exponent for time calculation
KLOC	1.7	Estimated code size in KLOC
Effort	4.2 PM	Person-months required
Time	4.2 months	Development time

2.4. Schedule Feasibility

Schedule feasibility evaluates whether the project can be completed within the desired timeline of 3.5 to 4 months.

- **Project Duration:**

  Safarnama project completion is planned within a 3.5- to 4-month time frame. Therefore, effective management practice, regular monitoring of progress, and timely decision-making are key so that all tasks are completed in due course.

2.4.1 Work Breakdown Structure (WBS):

WBS means breaking down a project into manageable chunks or estimation of effort in hours. With this detailed breakup, the manager will be better equipped to plan the tasks and resources.

Benefits: WBS provides an outline of the project. The team stays focused on their immediate tasks with respect to overall objectives. It also helps find out which areas will become bottlenecks or would possibly need deployed extra resources.

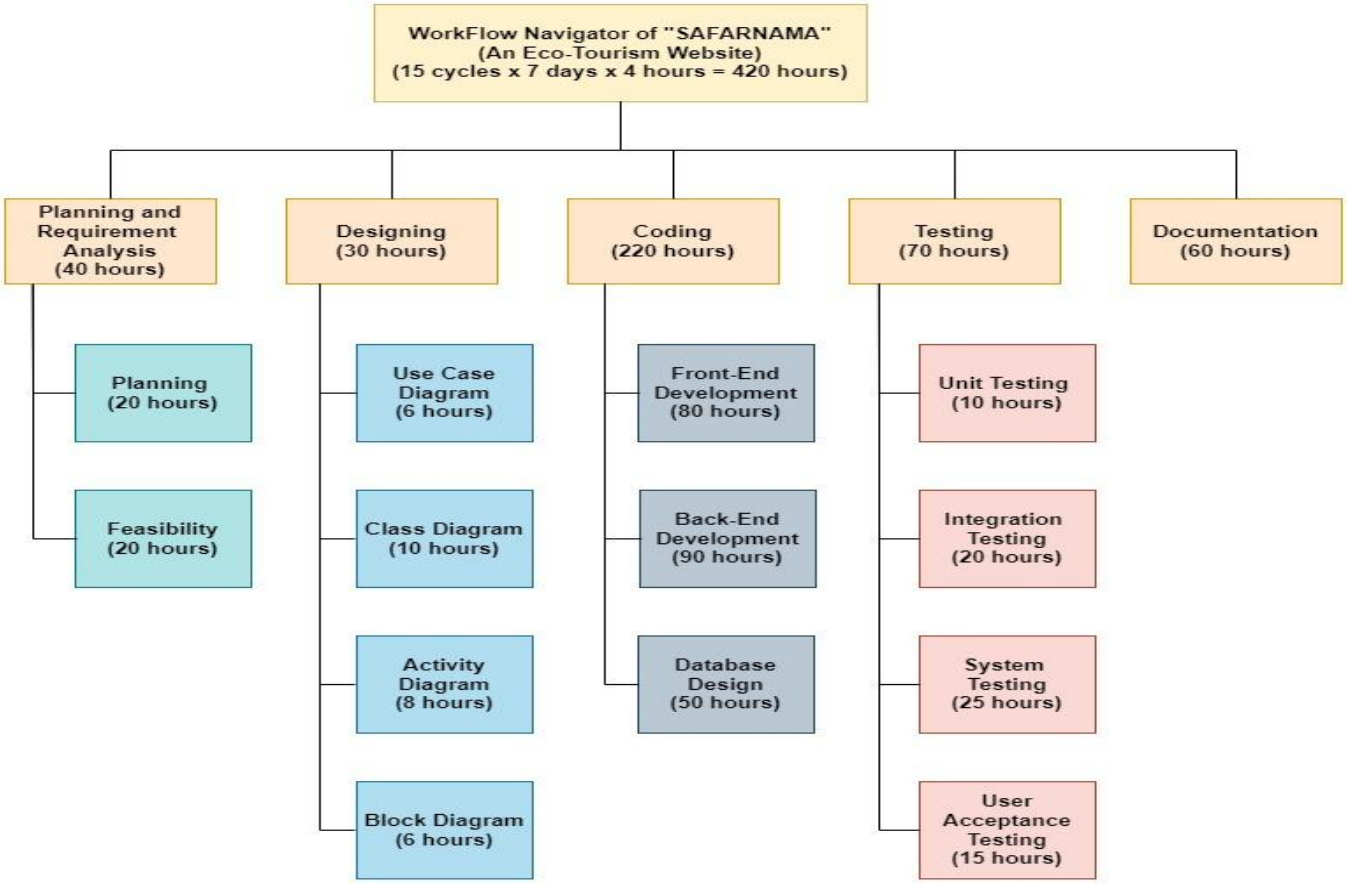


Figure :- 2.4.1 Work BreakDown Structure of Safarnama

2.4.2 Gantt Chart

A Gantt chart will be adopted to visualize the project timeline, indicating when each of the tasks is to be done. This will be important in monitoring progress and ensuring that everything runs according to the set schedule.

Pros: Through a Gantt chart, the project manager can easily track the deadlines and dependencies, thereby allocating resources properly and adjusting the schedule as need be.

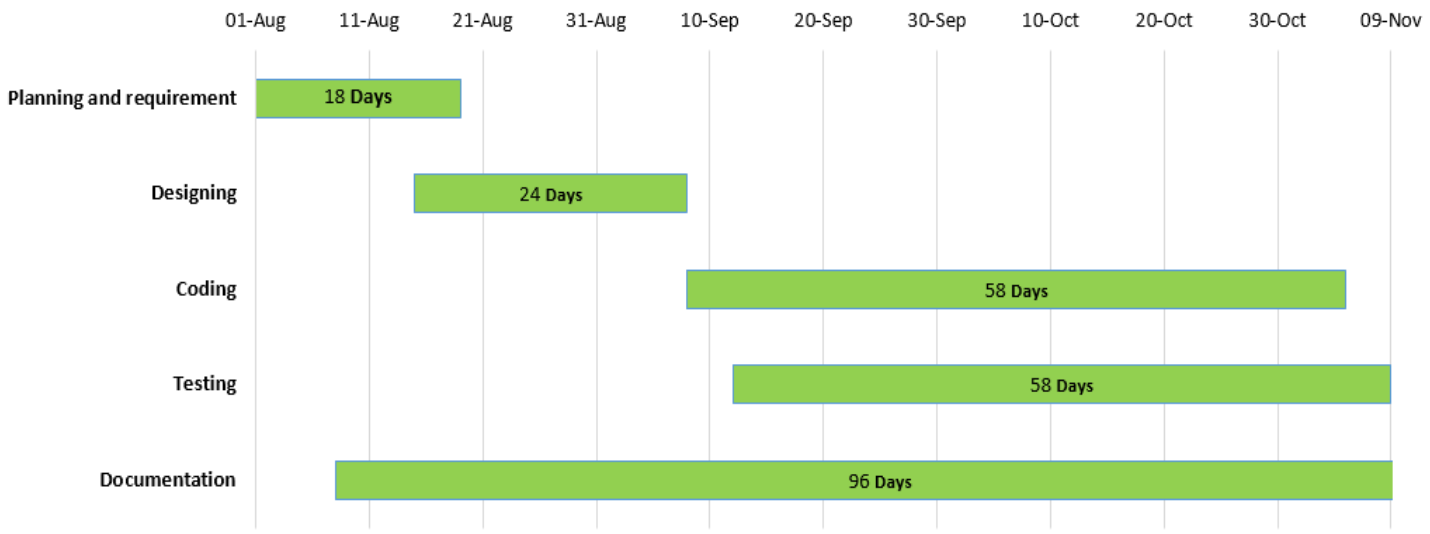


Figure :- 2.4.2 Gantt chart of Safarnama.

CHAPTER 3: DESIGN DIAGRAMS

3.1. Use Case Diagram

A Use Case Diagram illustrates the relation of the users, namely visitor, registered user and admin, with the system functionality. This diagram captures a high-level view of how different types of users will access Safarnama, indicating what main actions each type of user may carry out.

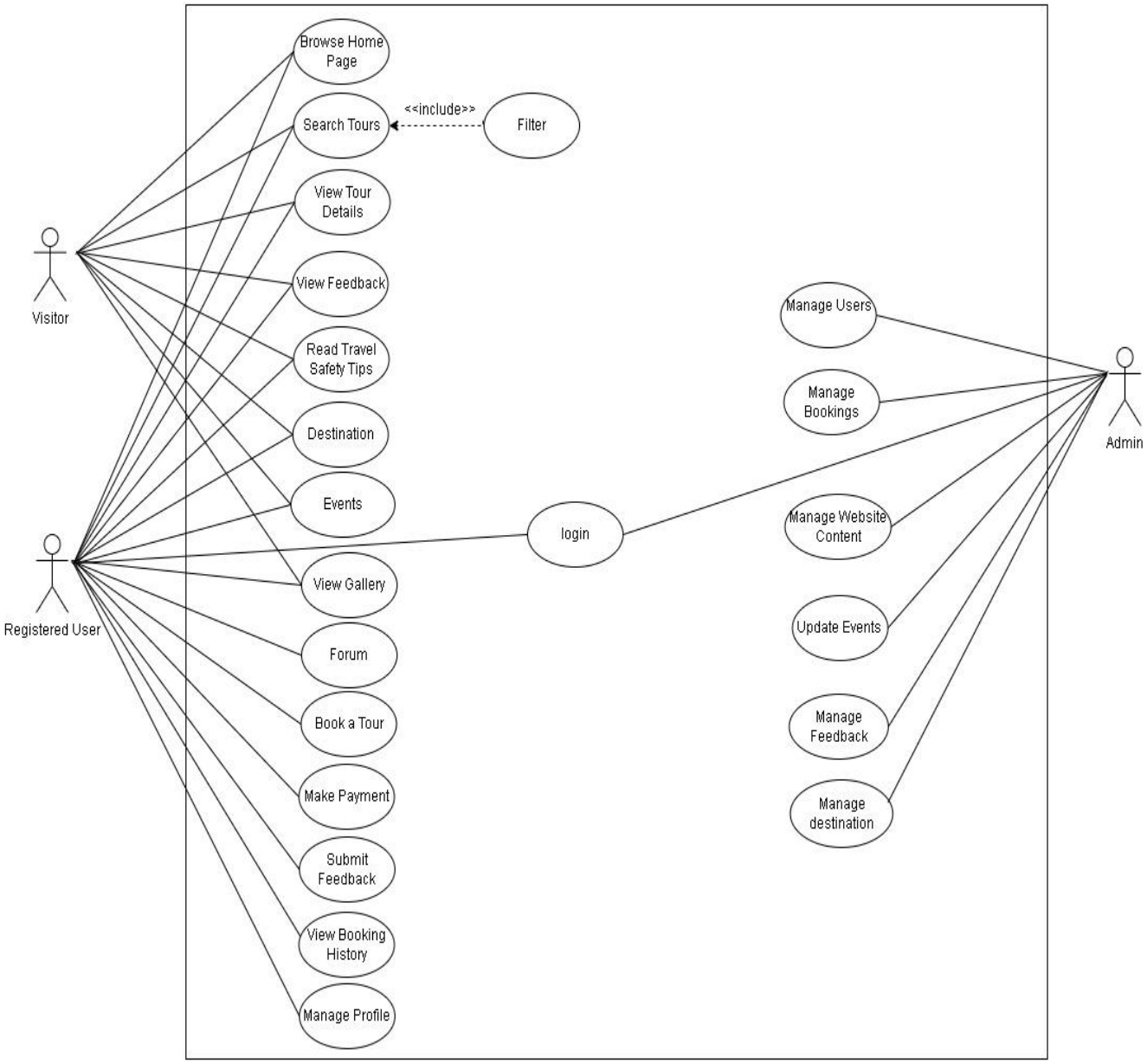


Figure :- 3.1 Use Case Diagram of Safarnama.

3.2. Class Diagram

The Class Diagram shows the structure of the system, outlining how different classes such as User, Destination, and Booking interact with each other. This diagram becomes indispensable while ascertaining the relationships between various components of the platform and in guiding the development process.

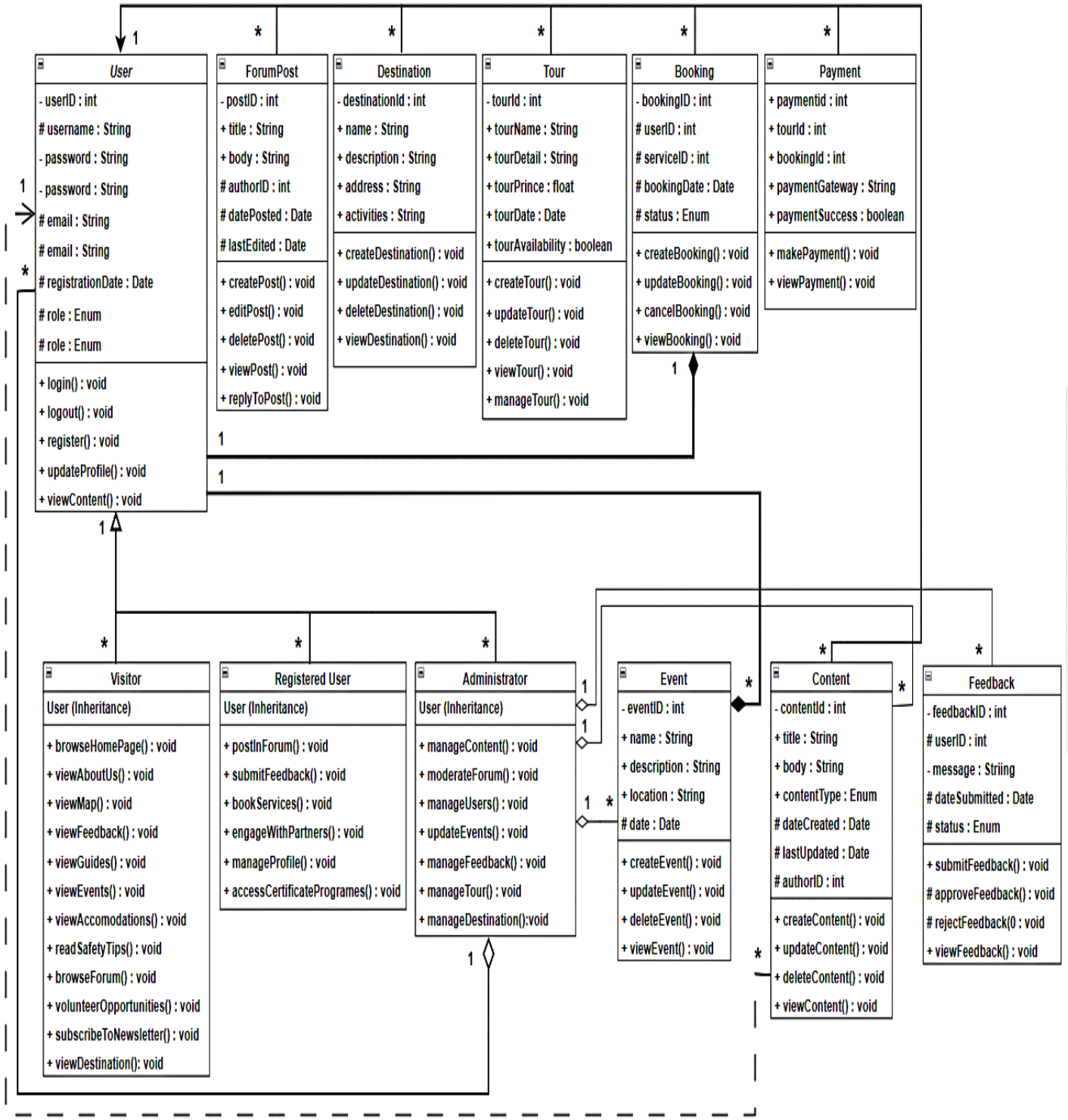


Figure:- 3.2 Class Diagram of Safarnama.

3.3. Activity Diagram

An Activity Diagram depicts the flow of operations, more precisely the booking processes and AI interactions. It helps in thinking through the workflow of major processes and guarantees that nothing has been missed.

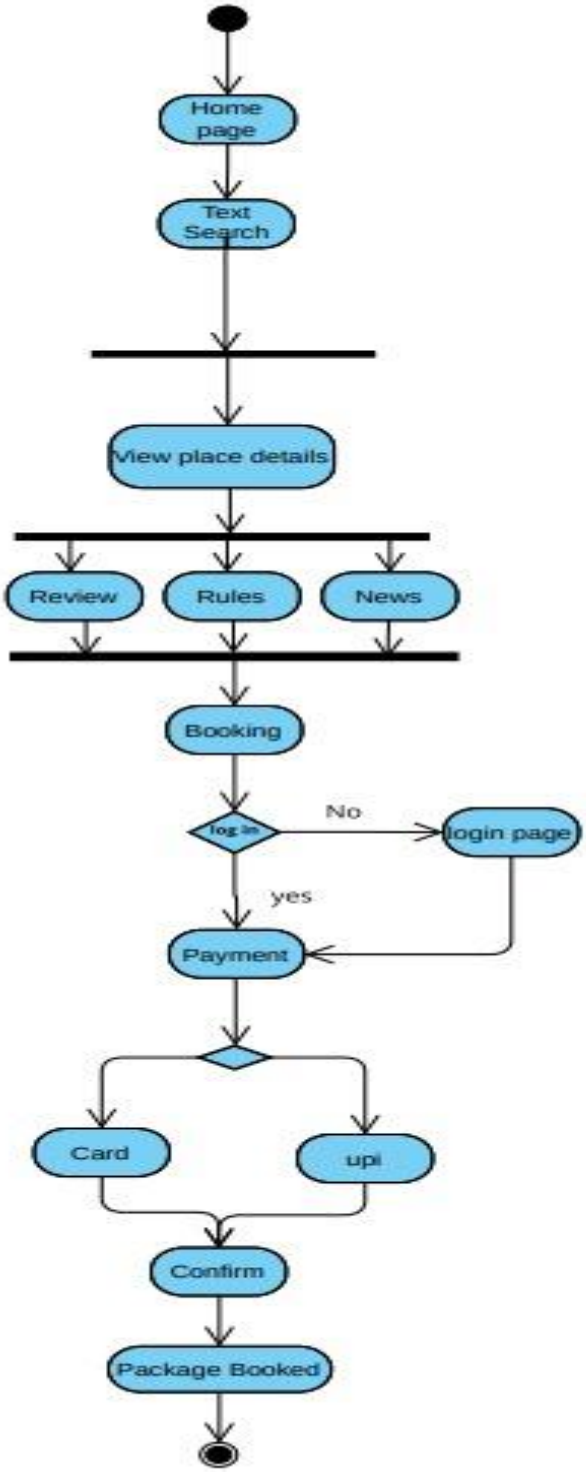
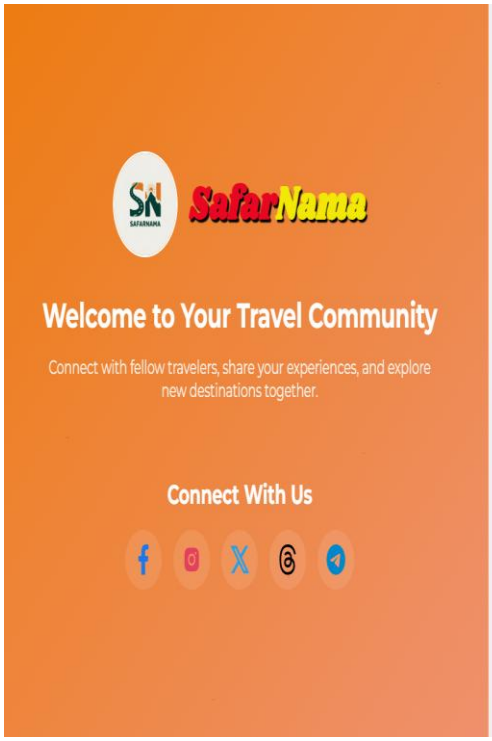
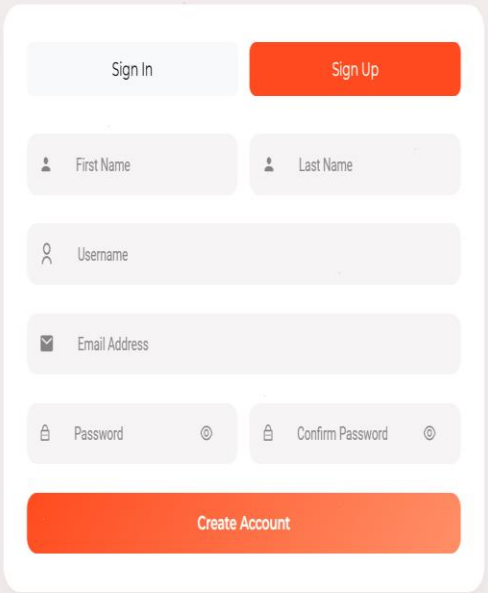
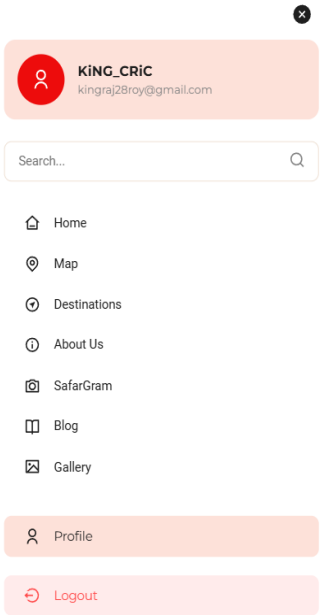


Figure:- 3.3 Activity Diagram of Safarnama .

CHAPTER 4: IMPLEMENTATION







Tawang Monastery

Tawang, Arunachal Pradesh, India

About

Nestled amidst the snow-clad mountains, Tawang Monastery is a marvel of architecture and natural beauty. Spread over 140 square meters, the monastery comprises 65 residential buildings, a library, and a towering assembly hall adorned with intricate paintings and murals. The main temple, known as "Dukhang," is an artistic wonder, featuring an 8-meter-tall gilded statue of Lord Buddha. The monastery is also a gateway to understanding the ancient practices of Buddhism and the cultural richness of the region. Its vibrant surroundings, coupled with the serene chants of the monks, create a surreal environment that captivates visitors. Whether one seeks spiritual solace or a deeper understanding of Buddhist heritage, Tawang Monastery offers an experience that resonates deeply with the soul.

History

Tawang Monastery, located in the serene landscapes of Arunachal Pradesh, India, stands as one of the most prominent and largest monasteries in the world. Established in 1680-81 by Merak Lama Lodre Gyatso, it was founded as per the wishes of the 5th Dalai Lama, Ngawang Lobsang Gyatso. The monastery is often referred to as "Galden Namgyal Lhatse," which translates to "celestial paradise in a clear night." Its establishment was deeply influenced by Tibetan Buddhism and served as a spiritual hub for the followers of the Gelugpa sect. Over centuries, Tawang Monastery has witnessed the ebb and flow of history, including the tumultuous times of the Sino-Indian War in 1962. Despite these challenges, it has preserved its ancient traditions and remains a beacon of Tibetan culture and religious practices. Its location at an altitude of 10,000 feet not only gives it a mystical aura but also offers a strategic position, having played a significant role in the socio-political interactions between Tibet and northeastern India.

Significance

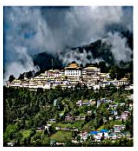
The significance of Tawang Monastery transcends its architectural splendor and religious prominence. It is a vital center for Mahayana Buddhism in India, serving as a place of meditation, education, and cultural preservation. The monastery houses nearly 300 monks who are actively involved in studying Buddhist scriptures, astrology, and other traditional disciplines. Its massive library contains rare manuscripts and texts, which are invaluable for researchers and spiritual seekers alike. Tawang Monastery also symbolizes unity and resilience. It acts as a cultural bridge, fostering harmonious relationships between the Tibetan and Monpa communities. Its annual Torgya festival is a major attraction, where monks perform Cham dances to ward off negative energies and bring blessings. For travelers and pilgrims, the monastery is a spiritual retreat and a testimony to the enduring legacy of Tibetan Buddhism in India.

Activities

Morning Prayer Ceremony

Participate in the morning prayer ceremony with monks chanting Buddhist sutras

Duration: 2 hours



Monastery Tour

Guided tour of the monastery including the main prayer hall, library, and museum

Duration: 3 hours

SafarNama Home Map Destination About-Us SafarGram Blog Gallery Search destinations, blogs...

Thukpa

Traditional Monpa noodle soup with vegetables and meat

Gyapa Khazi

Local Monpa dish made from millet and cheese

Location Map

Health & Safety Guidelines

- Altitude acclimatization required
- Carry warm clothing
- Inner Line Permit mandatory
- Respect monastery rules

Emergency Contacts

Police Control Room: 100

Tourist Information Center: +91-3794-222527

Recommended Travel Gear

Clothing

Down Jacket

Essential

Temperature can drop below freezing

Hiking Boots

Important

For walking on steep monastery steps

Educational Resources

History of Tawang Monastery: A comprehensive guide to the monastery's cultural significance and history

Buddhist Architecture: Understanding the design elements of Tawang Monastery

Local Monpa Culture: Introduction to the indigenous people of Tawang

Ready to Experience Tawang Monastery?

Book your eco-friendly tour now and create unforgettable memories!

Book Now

Kaziranga

★ 4.5 (5 reviews)

Assam

Nagaon ₹10,000 / per person 20km 10 people

Description

Kaziranga National Park famous for its one-horned Rhinoceros is located in Golaghat, Nagaon and Sonitpur districts of Assam. Kaziranga was designated a UNESCO World Heritage site in 1985.

Reviews (5 reviews)

1 ★ 2 ★ 3 ★ 4 ★ 5 ★

Share your thoughts Submit

Ranjeet Singh 5 ★

January 18, 2023

We are finally back home from our trip and I would like to thank you for organizing our trip for us throughout. We had a wonderful time at every destination and the hotels that you chose were very nice indeed.

₹10,000 /per person

★ 4.5 (5)

Information

Full Name

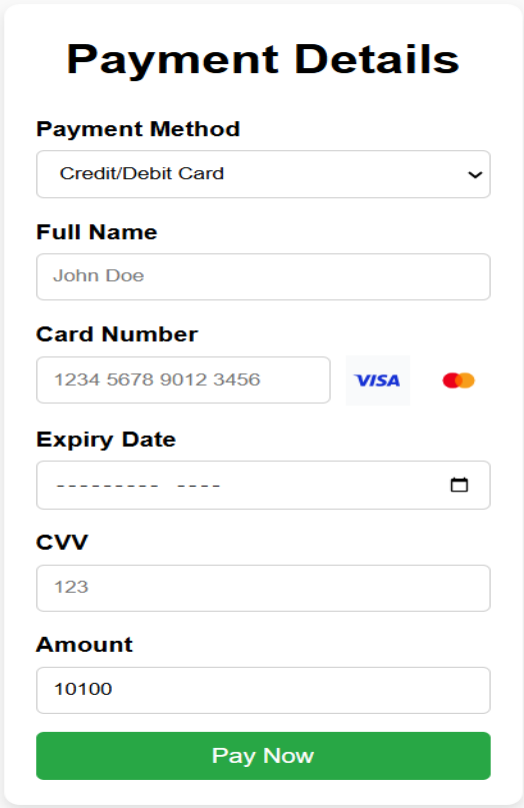
Phone

mm/dd/yyyy

1

₹10000 x 1 person(s)	₹10000
Service charge	₹100
Total	**₹10100**

Book Now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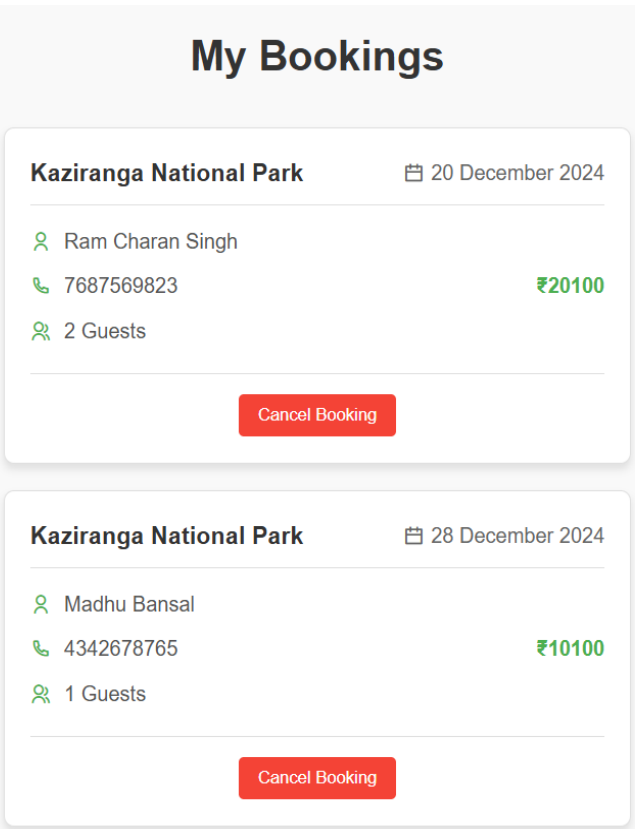
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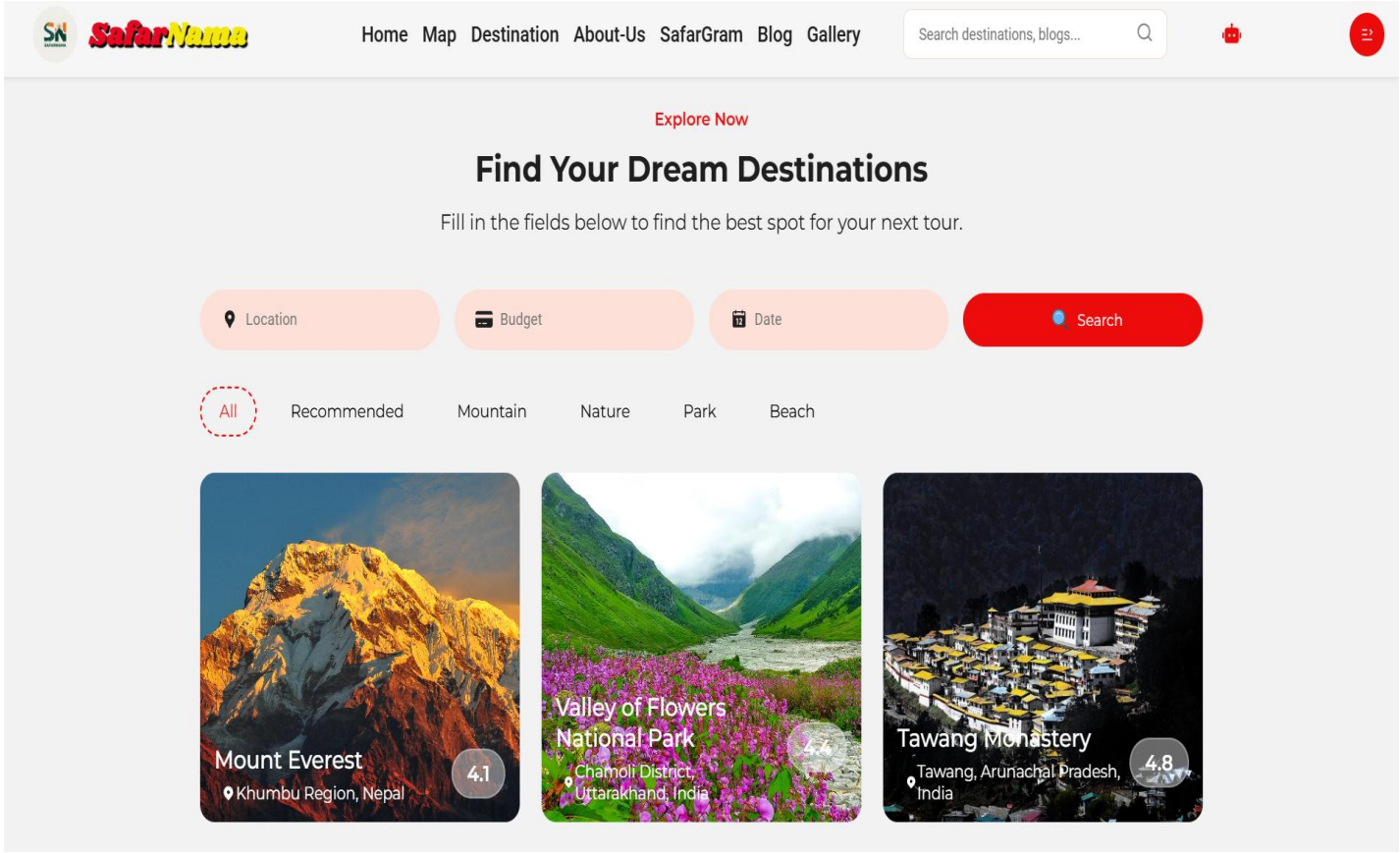
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Explore Now
Find Your Dream Destinations
Fill in the fields below to find the best spot for your next tour.
Location
Budget
Date
Search
All
Recommended
Mountain
Nature
Park
Beach
Mount Everest
Khumbu Region, Nepal
4.1
Valley of Flowers National Park
Chamoli District, Uttarakhand, India
Tawang Monastery
Tawang, Arunachal Pradesh, India
4.8

CHAPTER 5: CONCLUSION

Safarnama is designed to promote sustainable tourism in India through an innovative tourism platform. It addresses the growing demand for friendly travel by offering comprehensive platform while fostering responsible travel through community forums and volunteer opportunities through Safargram.

Using the MERN stack, Safarnama ensures a robust and user-friendly experience. Feasibility studies (technical, operational, economic, and schedule) have laid a strong foundation for the project's success.

In essence, Safarnama combines modern web technologies with tourism principles, filling market gaps and raising awareness about sustainable travel practices.

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