

VAGA TRIP

A Project Report Submitted by

Utsav Dharmendrabhai Gohel – 91900104011

in partial fulfillment for the award of the degree of

Bachelor of Technology

in

Information Technology



Faculty of Technology

Marwadi University, Rajkot

2022-23



Faculty of Technology

Marwadi University

Department of Information Technology

2022-23

CERTIFICATE

This is to certify that the project entitled **Vaga Trip** has been carried out by **Utsav Dharmendrabhai Gohel - 91900104011** under my guidance in partial fulfillment of the degree of Bachelor of Technology in Information Technology of Marwadi University, Rajkot during the academic year 2022-23.

Date: _____

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TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Utsav Dharmendrabhai Gohel** of Faculty of Technology, Marwadi University has worked on an Industry Defined project at **VAGA TRIP**, a subsidiary IT company of **SMAYAN PROJECTS LLP**. The work embodied in the project entitled "**VAGA TRIP**" has been carried out under the guidance of Senior Developer **PARTH PATEL** and in fulfillment of the degree of Bachelor of Technology.

Utsav Dharmendrabhai Gohel has joined the project as an intern from 20th January 2023 for a duration of 6 months. During this period, we found him to be sincere, honest, and diligent in his work. He has shown excellent skills in programming and problem-solving, and has been an asset to the project team.

Based on his performance, we are pleased to offer Utsav Dharmendrabhai Gohel a permanent position at Vaga Trip upon completion of his education. We are confident that he will continue to excel in his future endeavors.

We wish Utsav Dharmendrabhai Gohel all the success in his future career.

Warm regards,

A handwritten signature in black ink, appearing to read 'Nishit Patel', is written over the printed name.

NISHIT PATEL
Chairman

Date: 20nd April 2023



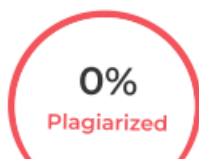
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Vaga Trip is a mobile application designed to connect travel enthusiasts from around the world. With Vaga Trip, users can easily find and join trips, search for travel buddies, communicate with them in a chat box, and share their travel experiences. The app's trip search feature allows users to browse a variety of trips and destinations based on their interests, dates, and budget. Once a user finds a trip that matches their preferences, they can easily request to join the trip and communicate with the trip organizer in the chat box. Additionally, users can search for travel buddies based on common interests, travel destinations, and dates. This feature enables users to find compatible travel partners with whom they can share their travel experiences. The app also includes a feature for sharing trip stories, where users can upload pictures and write descriptions of their travel experiences to inspire

Undertaking about Originality of Work

This is to certify that this project report submitted by the team members is an outcome of our independent and original work. I have acknowledged all the sources from which the idea and extracts have been taken. The project is free from any plagiarism and has not been submitted elsewhere.

Acknowledgments

I would like to take this opportunity to express my gratitude to all those who have supported and contributed to the completion of this final year project.

Firstly, I would like to thank my project mentor **Ms. Yatri Davda** for her unwavering guidance, support, and invaluable feedback throughout the project. Her expertise and knowledge in the field helped me to stay on track and achieve the goals of this project.

I am also grateful to our industry project guide **Mr. Parth Patel**, Senior Developer at Vaga Trip for sharing his expertise and knowledge about the travel industry, and providing us with the necessary industry insights and feedback. His inputs and suggestions helped us to make this project more relevant and practical.

I would also like to thank my family and friends for their constant support, motivation, and encouragement throughout the project. Their unwavering support helped me stay focused and motivated during challenging times.

Finally, I would like to extend my gratitude to the Marwadi University, who have given me chance to do research and implementation for this project.

Thank you all for your support and encouragement.

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Institute's Vision and Mission

Institute's Vision

To foster an environment that empowers people, organisations and societies through education, ideas, research and training.

Institute's Mission

- To provide quality education and thereby bring social transformation.
- To create leaders through innovation and entrepreneurship.
- To cultivate the culture of research advancements.
- To imbibe universal consciousness.
- To stimulate growth through industrial and international partnerships.

Department's Vision and Mission

Department's Vision

To be recognized as a team delivering educational excellence that advances teaching, learning, and research, in alignment with Marwadi Education Foundation's mission and goals.

Department's Mission

- To impart knowledge and skills related to the undergraduate program offered by the department.
- To impart technical and professional skills to make graduates competitive and capable.
- To constantly encourage and motivate graduates for innovation, entrepreneurship Industry readiness.
- To inspire graduates for higher education and research and to place graduates in leading industries and companies.

PEO, PO, and PSO

Program Educational Objectives (PEO):

Our graduated students are expected to fulfill the following Program Educational Objectives (PEOs):

1. **Core Competency:** Successfully apply fundamental mathematical, scientific, and engineering principles in formulating and solving engineering and real life problems for betterment of society.
2. **Breadth:** Will apply current industry accepted practices, new and emerging technologies to analyse, design, implement and maintain state of art solutions.
3. **Professionalism:** Work effectively and ethically in ever changing global professional environment and multi-disciplinary environment.
4. **Learning Environment:** Demonstrate excellent communication and soft skills to fulfil their commitment towards social responsibilities and foster life-long learning.
5. **Preparation:** Promote research and patenting to enhance technical and entrepreneurship skills within them.

Program Outcomes (POs)

Engineering Graduates will be able to:

PO1: Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2: Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3: Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4: Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5: Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6: The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7: Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9: Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11: Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12: Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Outcomes (PSOs)

PSO1. Graduates will be able to identify, analyze and solve the real time problems of the industries in the area of software development, embedded system, VLSI design, IoT and communication technologies.

PSO2. Graduates will be able to contribute as an analyst and developer in the areas related to cloud computing, DevOps, security, machine learning, artificial intelligence and big data.

Abstract

Vaga Trip is a mobile application designed to connect travel enthusiasts from around the world. With Vaga Trip, users can easily find and join trips, search for travel buddies, communicate with them in a chat box, and share their travel experiences. The app's trip search feature allows users to browse a variety of trips and destinations based on their interests, dates, and budget. Once a user finds a trip that matches their preferences, they can easily request to join the trip and communicate with the trip organizer in the chat box. Additionally, users can search for travel buddies based on common interests, travel destinations, and dates. This feature enables users to find compatible travel partners with whom they can share their travel experiences. The app also includes a feature for sharing trip stories, where users can upload pictures and write descriptions of their travel experiences to inspire and inform other travelers. This feature allows users to share their unique perspectives on destinations, experiences, and cultures. Overall, Vaga Trip provides a comprehensive platform for travel enthusiasts to find new adventures, connect with like-minded travelers, and share their travel experiences.

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1. Introduction

1.1 Problem Summary and Introduction

Travelers faced various problems such as last moment cancellations of trips with friends, lack of knowledge about places, difficulty finding travel partners, and uncertainty about the availability of space in cars. Solo travelers often faced challenges in finding suitable travel companions. There was also no platform for travelers to connect with like-minded individuals and plan trips together. Additionally, travelers often had to switch between multiple apps and websites to book various travel-related services such as hotels, flights, and car rentals. Overall, planning and organizing a trip was often a time-consuming and challenging process for travelers. Overall, the lack of a one-stop-shop for all travel-related services and information made trip planning a tedious and time-consuming process for travelers.



Figure 1.1 Contribution of Travel industry in GDP

Travel & tourism is a resilient sector, contributing 10.4% to global GDP in 2018 & supporting one in ten jobs. Improved connectivity, a growing middle class & tech advancement have led to insatiable demand. Mobile apps are a key driver of digital growth, with 70% of travelers using them to plan and book trips. The sector grew 3.6% in 2019, outpacing overall global economic growth for the eighth year.

Vaga Trip is a mobile application designed to connect travel enthusiasts from around the world. The app's purpose is to help travelers find new adventures, connect with like-minded individuals, and share their travel experiences. Vaga Trip offers a comprehensive platform that enables users to easily find and join trips, search for travel buddies, communicate with them in a chat box, and share their travel stories. Vaga Trip provides a comprehensive platform for travel enthusiasts to find new adventures, connect with like-minded travelers, and share their travel experiences.

The project's primary aim was to develop an Android app that serves as a travel guide for users during their journeys. Our project's objectives were to understand the basics of Android development, analyze and evaluate current trends and practices in the travel app industry, implement effective algorithms to address real-time problems, and develop a software development flow while maintaining detailed documentation throughout the process. Vaga Trip offers new functions that are not commonly found in traditional travel apps, specifically user interaction and trip sharing features.

With Vaga Trip, users can browse a variety of trips and destinations based on their interests, dates, and budget. Once a user finds a trip that matches their preferences, they can easily request to join the trip and communicate with the trip organizer in the chat box. Additionally, users can search for travel buddies based on common interests, travel destinations, and dates. This feature enables users to find compatible travel partners with whom they can share their travel experiences.

The app also includes a feature for sharing trip stories, where users can upload pictures and write descriptions of their travel experiences to inspire and inform other travelers. This feature allows users to share their unique perspectives on destinations, experiences, and cultures.

1.2 Aim and Objectives

The main aim of developing Vaga Trip was to create a user-friendly and comprehensive travel app that would allow travelers to easily plan and organize their trips. The app was designed to provide a wide range of features, including destination information, travel itineraries, and local recommendations, all in one convenient platform. The goal was to simplify the travel planning process and provide a seamless experience for users, from researching their destination to booking accommodations and activities. Additionally, the app aims to provide personalized recommendations and deals based on users' preferences and past travel history.

Aims:

1. To connect travel enthusiasts from around the world.
2. To provide a platform for users to find new adventures, connect with like-minded individuals, and share their travel experiences.
3. To serve as a travel guide for users during their journeys.
4. To enable users to easily find and join trips based on their interests, dates, and budget.
5. To facilitate communication between users through the app's chat box.
6. To provide a feature for sharing trip stories, where users can upload pictures and write descriptions of their travel experiences to inspire and inform other travelers.
7. To offer new functions that are not commonly found in traditional travel apps, specifically user interaction and trip sharing features.

Objectives:

1. To understand the basics of Android app development.
2. To analyze and evaluate current trends and practices in the travel app industry.
3. To implement effective algorithms to address real-time problems.
4. To develop a software development flow while maintaining detailed documentation throughout the process.
5. To ensure that each component of the app is tested to ensure it is functioning as intended.
6. To test the app's different components together to ensure the app is functioning as a whole.
7. To test the app's features and functionalities to ensure they are working as expected.
8. To conduct user testing to gather feedback and improve the user experience.
9. To test the app's performance to ensure it is fast, responsive, and stable.
10. To test the app on different devices and platforms to ensure it works on all platforms.

1.3 Problem Specifications

1. Inefficient trip planning: Planning a trip can be time-consuming and tedious, requiring users to browse through multiple websites and apps to book flights, hotels, and activities. The Vaga Trip app aims to streamline this process by providing a one-stop-shop for all travel-related needs.

2. Limited travel options: Some travelers may not have access to all available travel options due to language barriers or lack of knowledge about local destinations. Vaga Trip aims to expand travelers' options by providing a wide range of activities and destinations to choose from, and offering language support to ensure that all users can access the app's features.

3. Lack of personalized recommendations: Many travel booking websites and apps offer generic recommendations based on popularity or price, which may not align with users' preferences. Vaga Trip aims to provide personalized recommendations based on users' past travel history and preferences, in order to enhance their overall travel experience.

4. Safety concerns: Traveling to unfamiliar destinations can be risky, particularly for solo travelers or those with limited knowledge of local customs and safety precautions. Vaga Trip aims to address these concerns by providing safety tips and information about local customs and laws, as well as offering customer support to help travelers navigate any issues that may arise during their trip.

1.4. Literature Review and Prior Art Search (PAS).

1. *"The Role of Social Media in Travel Experience Creation"* by Nima Dokoohaki and Ali Asghar Peyvandi. This paper examines how social media platforms such as Instagram and TripAdvisor are used to create and share travel experiences, and the impact of social media on travelers' decision-making processes.

2. *"Exploring the Role of Social Media in Destination Marketing"* by Hanqin Qiu, Joseph O'Leary, and Daniel Bauer. This study investigates how tourism organizations can use social media to promote destinations and engage with potential visitors, and explores the effectiveness of different social media strategies.

3. *"Instagram and Tourism: A Review of Research and Trends"* by Dan Wang, Xiang Li, and Liang (Rebecca) Tang. This article provides a comprehensive overview of research on Instagram's impact on travel behavior and destination marketing, and highlights current trends and best practices in the use of Instagram for tourism.

4. *"The Influence of Social Media on Travel Behavior: An Empirical Investigation"* by Julia Neidhardt and Sascha Möllering. This study examines the impact of social media on travelers'

decision-making processes and destination choices, and investigates the role of social media in shaping travelers' expectations and experiences.

5. "***Social Media and Travel: A Review and Research Agenda***" by Ana María Munar and Wang Duan. This article provides a critical review of existing literature on social media and travel, and identifies key research gaps and future directions for research in this area.

A literature review involves identifying, evaluating, and synthesizing scholarly articles, books, and other sources related to a particular research topic. The purpose of a literature review is to provide a comprehensive understanding of the current state of research on a given topic, identify any gaps or inconsistencies in the literature, and inform the development of new research.

In the context of the Vaga Trip app, a literature review may involve researching existing travel apps and platforms, and evaluating their features and functionality. This can help to identify any gaps or areas for improvement that Vaga Trip can address. A prior art search may involve researching existing patents and patent applications related to travel apps, as well as any relevant prior art in the field. This can help to ensure that Vaga Trip's technology is novel and non-obvious, and can potentially identify any patentability issues that may need to be addressed.

1. Data analysis in terms of coding, organizing, filtering, categorizing, relating and related abstract concepts. The software allows making comparisons among different concepts simultaneously, which simplifies qualitative data analysis and improves the accuracy of research findings. Critical strategies, including method triangulation, conformability audit and member checks are applied to ensure trustworthiness of research findings.

2. Information search (traveller's perspectives), and market segmentation by information/booking channel. Perspective the reasons why travellers make use of different sources of information are investigated, whereas using another perspective, the observable outcome of that behaviour is raised.

3. Tour and travel information is obtained mainly through communication media like newspaper, magazines etc. Today's mobile devices are becoming more intelligent, which provides information in mobile itself. Mobile Technology is now set to improve tourism in

various fields. Due to busy schedule people want quick and easy ways to obtain information of all kinds and tourism is no different. The tour management system which is based on internet provides self-guidance for tourists in mobile phones.

1.5. Plan of the work

- 1. Define the goals and scope of the app:** The first step in developing the Vaga Trip app is to clearly define the goals and scope of the project. This involves understanding the target audience, the features and functionality of the app, and the overall vision for the product.
- 2. Conduct market research:** The next step is to conduct market research to gain a better understanding of the competition and the needs and preferences of potential users. This involves analyzing data on travel trends, researching competitor apps, and conducting user surveys and interviews.
- 3. Develop a prototype:** With a clear understanding of the goals and scope of the project, and the needs and preferences of potential users, the next step is to develop a prototype of the app. This involves creating wireframes, designing the user interface, and developing basic functionality.
- 4. Test the prototype:** Once the prototype is complete, the next step is to test it with a small group of users to get feedback on the user experience and identify any issues or bugs that need to be addressed.
- 5. Develop the full app:** Based on the feedback from the prototype testing, the next step is to develop the full app. This involves building out all the features and functionality of the app, integrating APIs and third-party services, and conducting rigorous testing to ensure the app is reliable and bug-free.
- 6. Quality Assurance and Testing:** Conduct comprehensive testing to ensure that the app functions correctly and is free of bugs and glitches
- 7. Launch the app:** With the app fully developed and tested, the next step is to launch it to the public. This involves creating a marketing plan to promote the app and attract users, as well as submitting the app to the relevant app stores for distribution.
- 8. Monitor and maintain the app:** Once the app is launched, the work is not over. It is important to continually monitor the app to identify any issues or bugs that arise, as well as to make updates and improvements to the app based on user feedback.

Table 1.5 Work Breakdown Structure

SR. No	Name	Role	Responsibilities
1	Utsav Gohel	Junior Developer	Backend Engineer, DevOps

1.6. Materials / Tools required

Hardware requirement of the project

- Laptop/desktop - For development
- Internet - For fetching data
- Minimum 8 GB RAM
- Minimum 16 GB Disk space

Software requirement of the project

1. **Programming Languages:** The Vaga Trip app was built using Flutter for the frontend and Node.js for the backend. So, proficiency in these programming languages is essential.
2. **Integrated Development Environment (IDE):** Developers working on the Vaga Trip app may use any preferred IDE such as Visual Studio Code, Android Studio, or IntelliJ IDEA.
3. **Software Development Kit (SDK):** The Flutter SDK is required to develop the user interface of the Vaga Trip app.
4. **Database Management System:** A database management system such as MySQL or PostgreSQL is required to store and manage the app's data.
5. **Application Programming Interface (API):** Vaga Trip uses the ExpressJS API with Sequelize ORM for the backend.
6. **Cloud Services:** Vaga Trip is hosted on AWS cloud using RDS as database service and EC2 Ubuntu server.
7. **Testing Tools:** Testing tools like Jest, Mocha, or Chai can be used to test the app's functionalities.
8. **Version Control System:** A version control system such as Git is necessary for managing and tracking changes to the codebase.
9. **Design Tools:** For designing user interfaces, developers may use tools such as Sketch, Figma, or Adobe XD.

2. Analysis, Design Methodology and Implementation Strategy

2.1. Observation Matrix

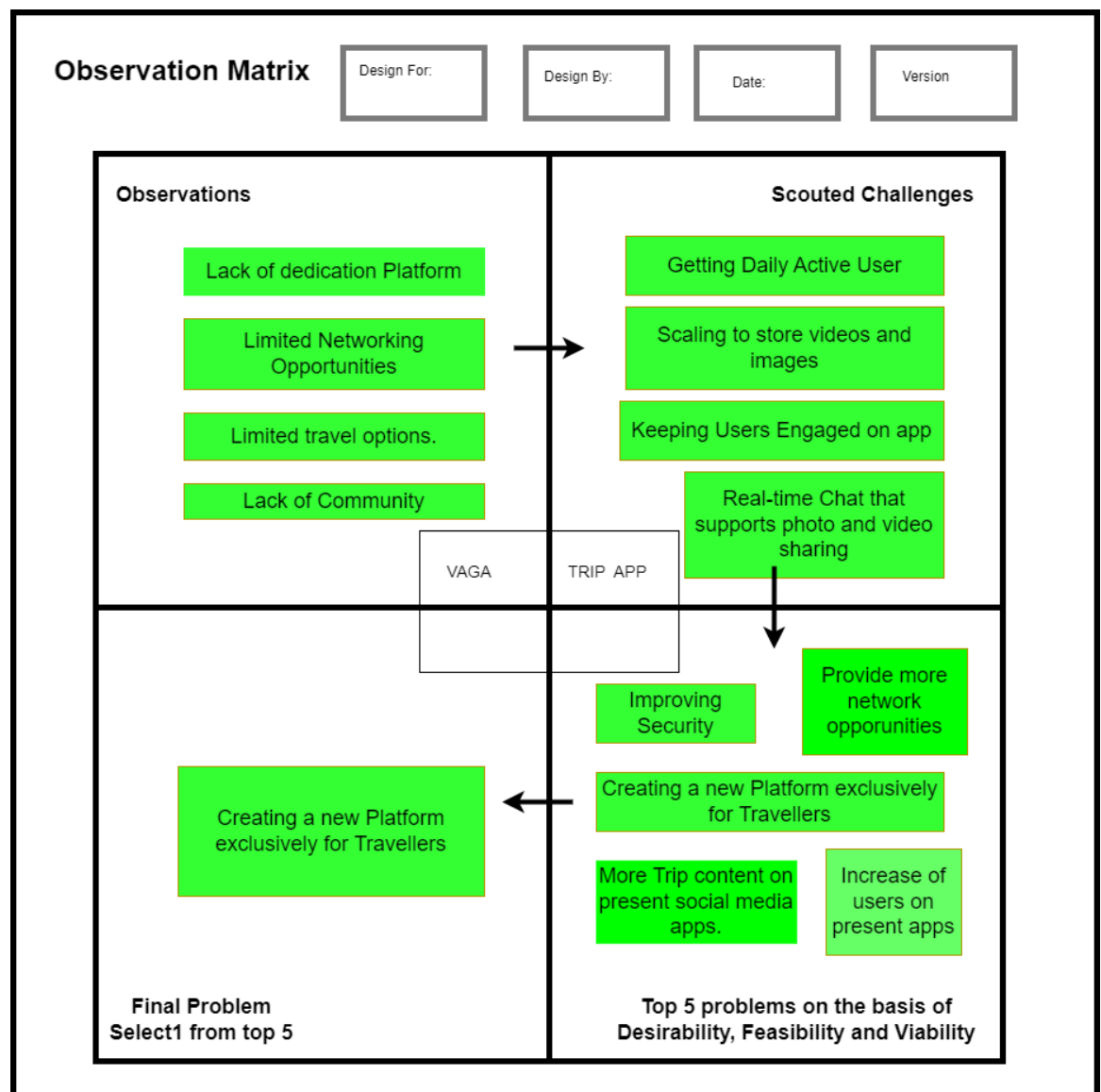


Figure 2.1 Observation Matrix

Observations:

The observations made while developing the app was that there is no exclusive social media app for surgeons that provides networking and peer-to-peer connection opportunities.

Scouted Challenges: A few challenges faced were gaining new active users as well as removing spam users from the app.

Top 5 Problems on the Basis of Desirability, Feasibility, and Viability: Top problem observed was a lack of a dedicated platform for surgeons.

Final Problem: As a result, we have developed and engineered an application exclusively for surgeons

2.2. Ideation Canvas

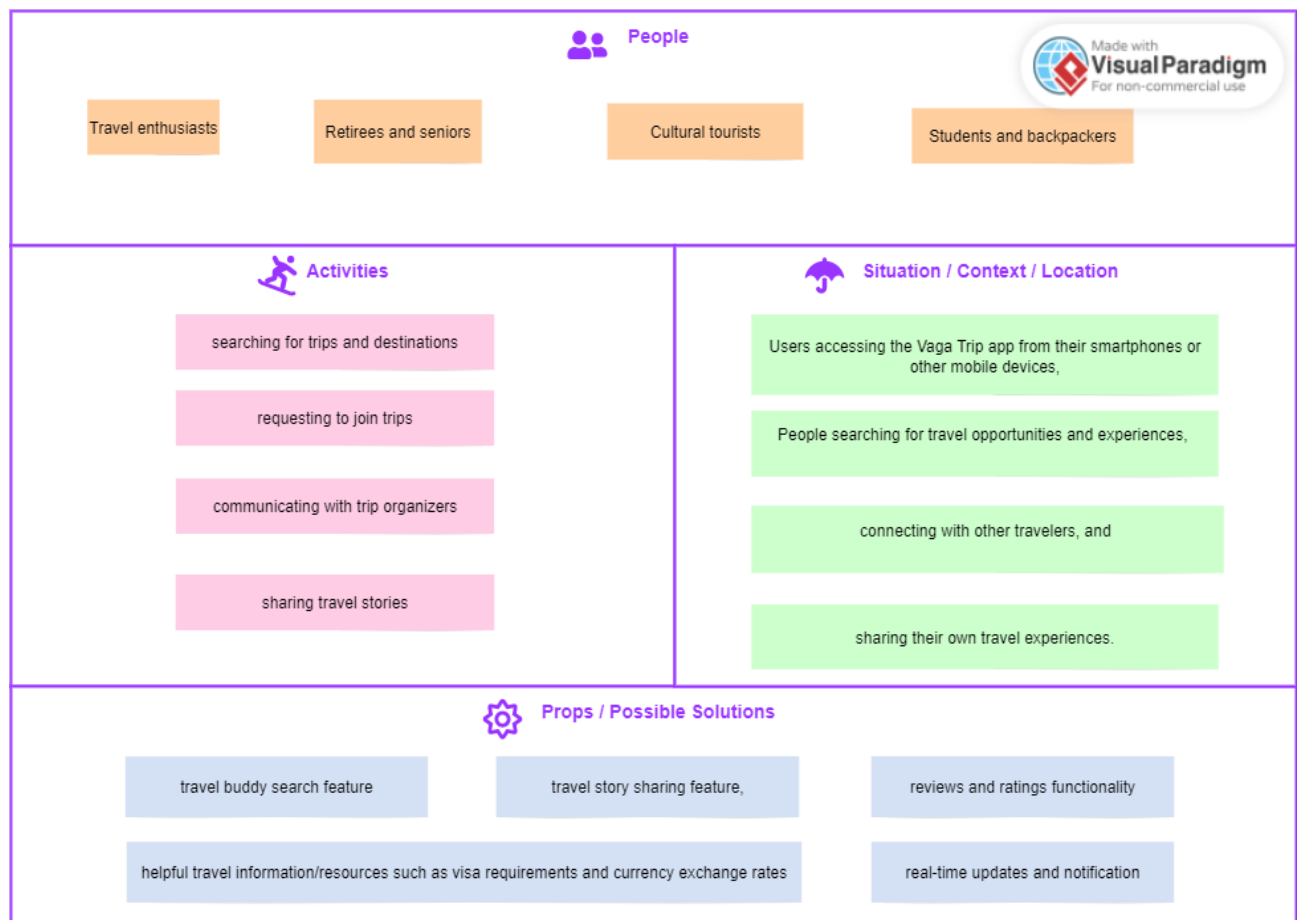


Figure 2.2 Ideation Canvas

People

- Travel enthusiasts
- Cultural tourists
- Students and backpackers
- Retirees and seniors

Activity

- Browsing/searching for trips and destinations,
- Requesting to join trips,
- Communicating with trip organizers,
- Searching for and connecting with travel buddies,
- Sharing travel stories and experiences,

Situation/Content/Location:

- Users accessing the Vaga Trip app from their smartphones or other mobile devices,
- searching for travel opportunities and experiences,
- connecting with other travelers, and sharing their own travel experiences.

Props/Possible Solutions:

- travel buddy search feature
- travel story sharing feature
- reviews and ratings functionality
- real-time updates and notifications
- helpful travel information/resources such as visa requirements and currency exchange rates.

2.3. Product Development Canvas

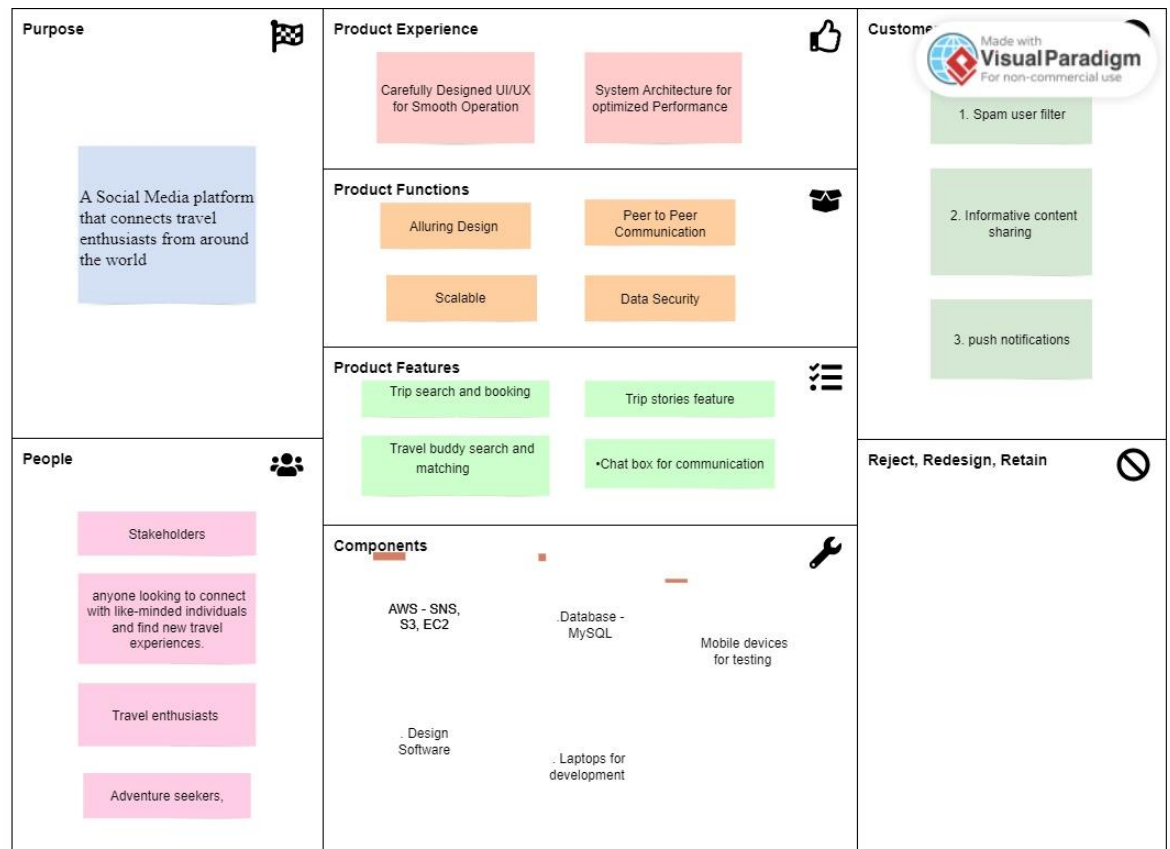


Figure 2.3 Product Development Canvas

Purpose

The purpose of Vaga Trip is to provide a comprehensive platform that connects travel enthusiasts from around the world, enables them to easily find and join trips, search for travel buddies, communicate with them in a chat box, and share their travel stories.

Product Experience

The product experience should be designed to provide an immersive and enjoyable experience for users, while also being user-friendly and easy to navigate.

The app should have a clean and modern design, with intuitive features and simple navigation.

Product Functionality

- The app should have the following core functionalities:
- Ability to search for trips and destinations based on interests, dates, and budget
- Ability to join and communicate with trip organizers and other travelers
- Ability to search for travel buddies based on common interests and destinations
- Ability to share trip stories and photos

Product Features

- Trip search and booking
- Travel buddy search and matching
- Chat box for communication with trip organizers and other travelers
- Trip stories feature for sharing photos and descriptions of travel experiences
- User profile customization
- Push notifications for trip updates and communications
- Social media integration

Components All the components required to create the feature we listed.

1. Database - MySQL
2. AWS - SNS, S3, EC2
3. Mobile devices for testing
4. Design Software
5. Laptops for development

Customer Validation

Post prototype creation is taken to the user for feedback.

1. Spam user filter
2. Informative content sharing
3. push notifications

2.4. System Design

2.4.1 Use Case Diagram



Figure 2.4.1 Use case Diagram

2.4.2 DFD (Data Flow Diagram)

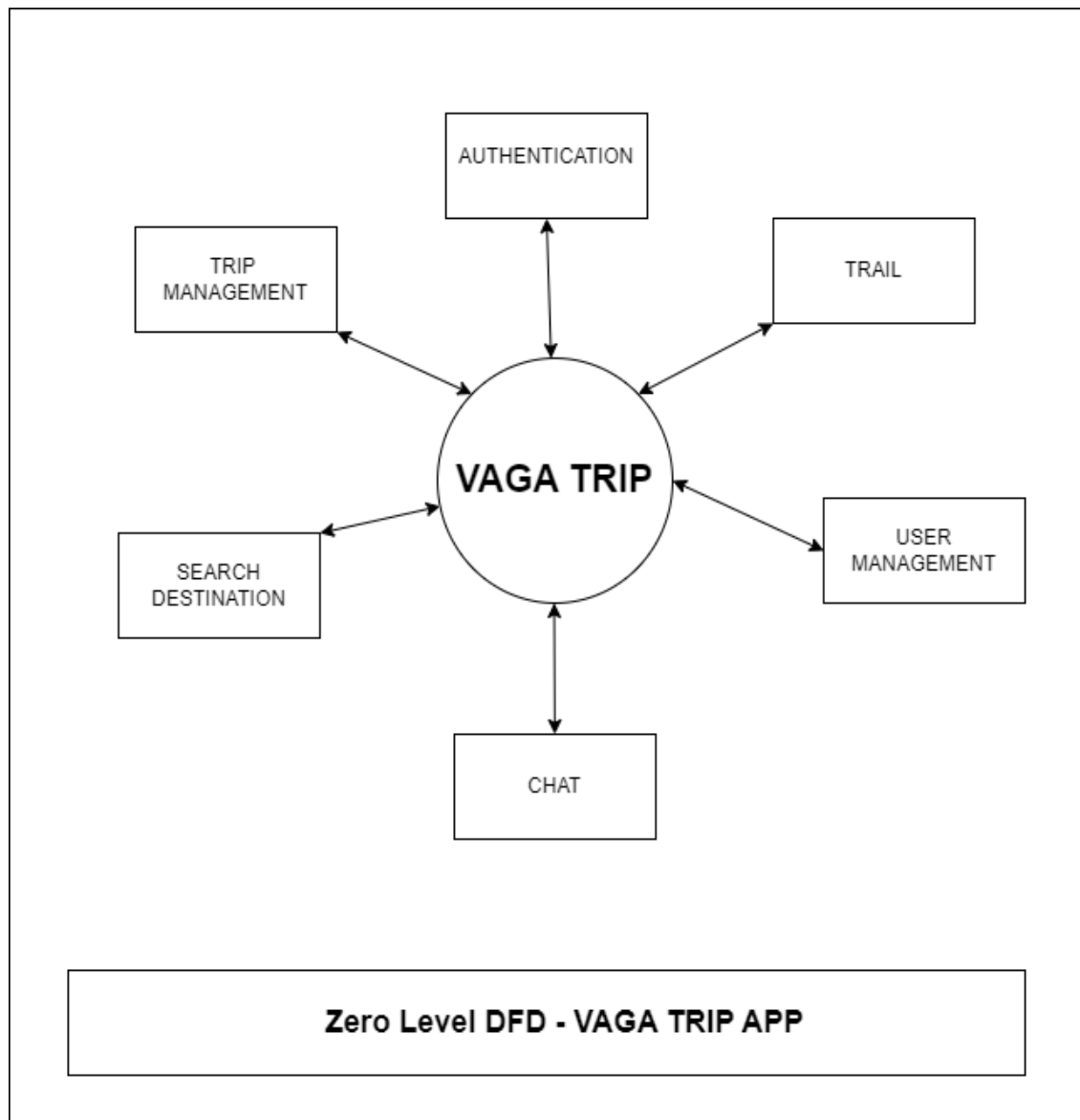


Figure 2.4.2 DFD (Data Flow Diagram)

2.4.3 Activity Diagram

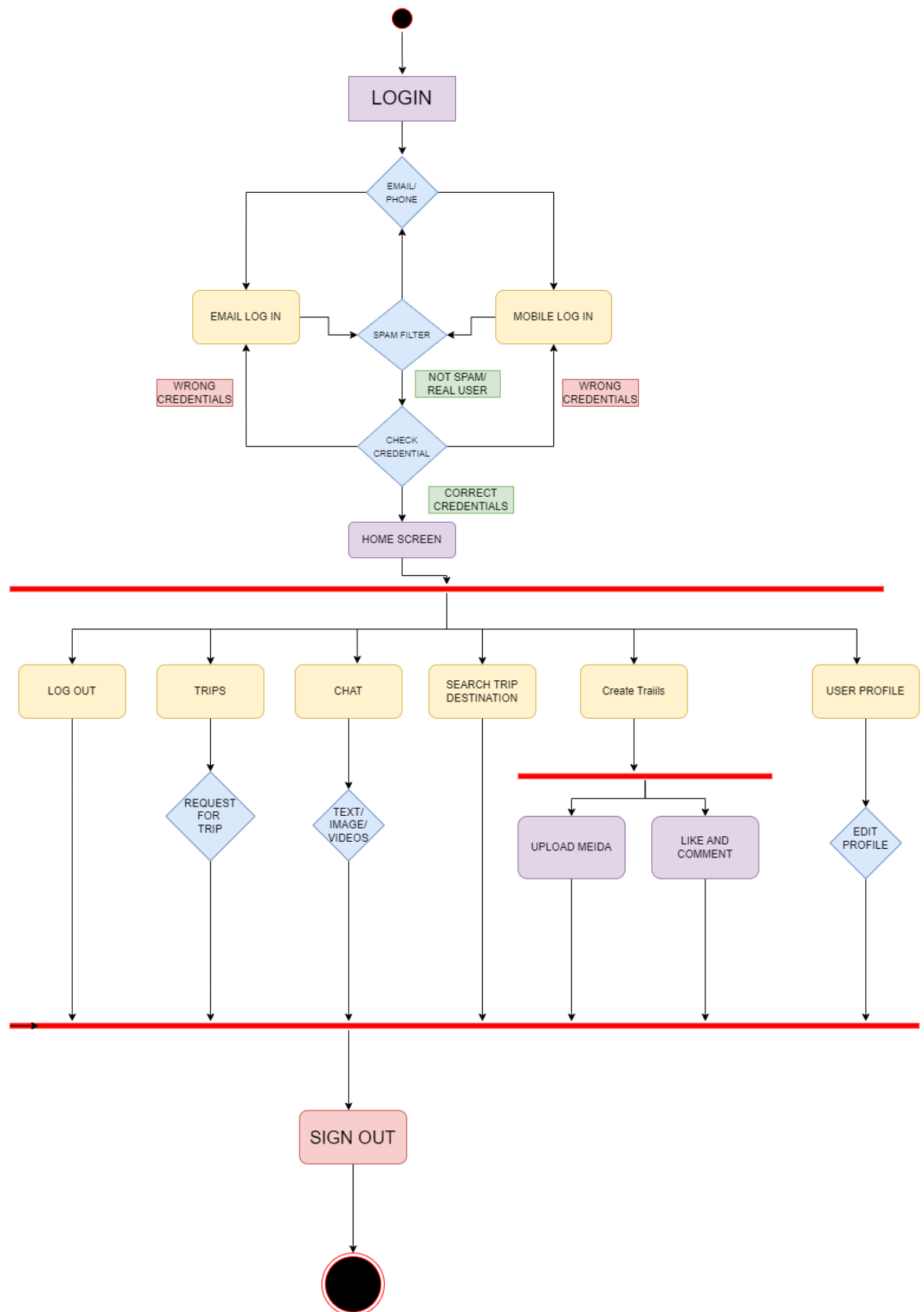


Figure 2.4.3 Activity Diagram

2.4.4 Entity Relationship Diagram

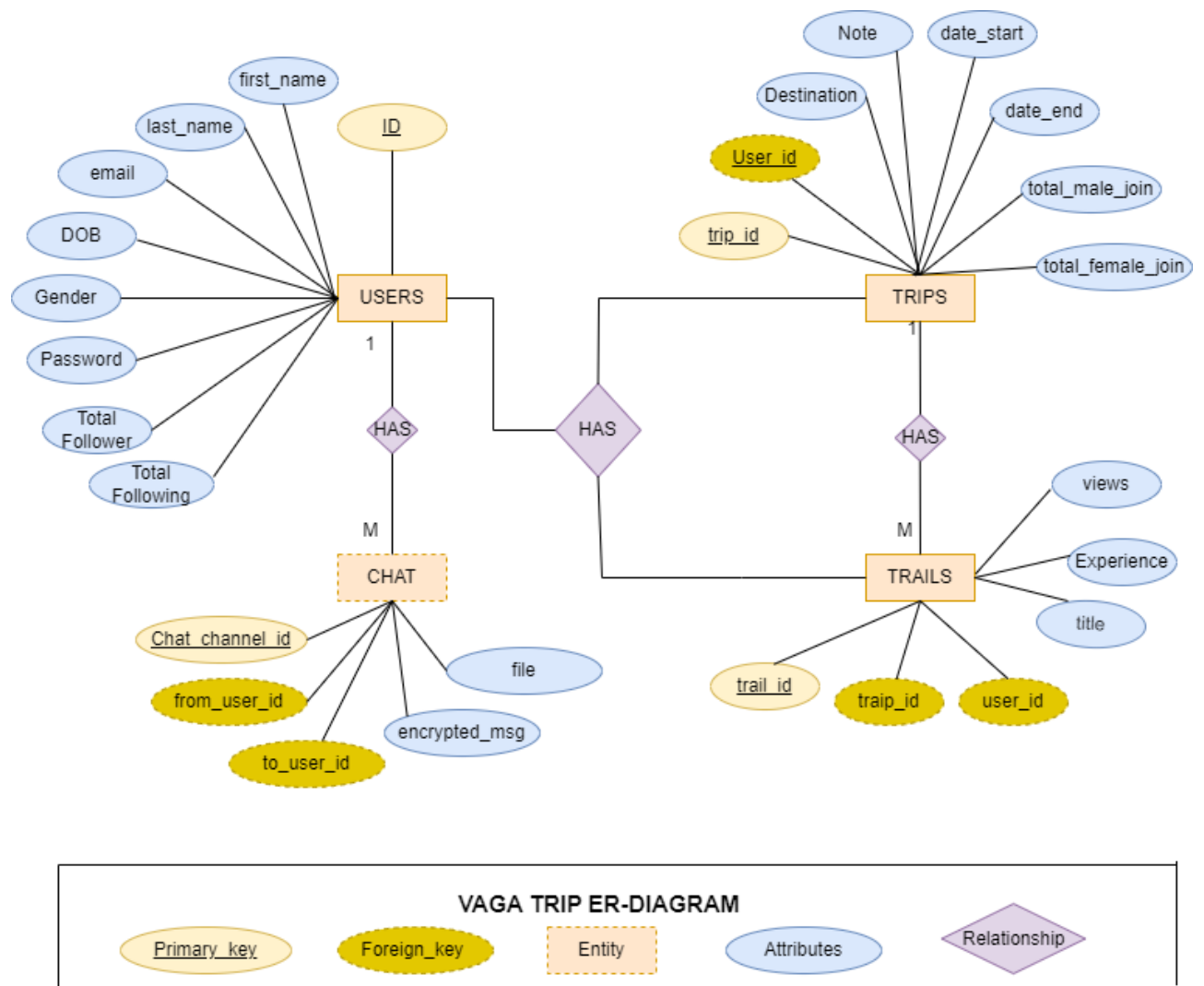


Figure 2.4.4 ER Diagram

2.4.5 Sequence Diagram

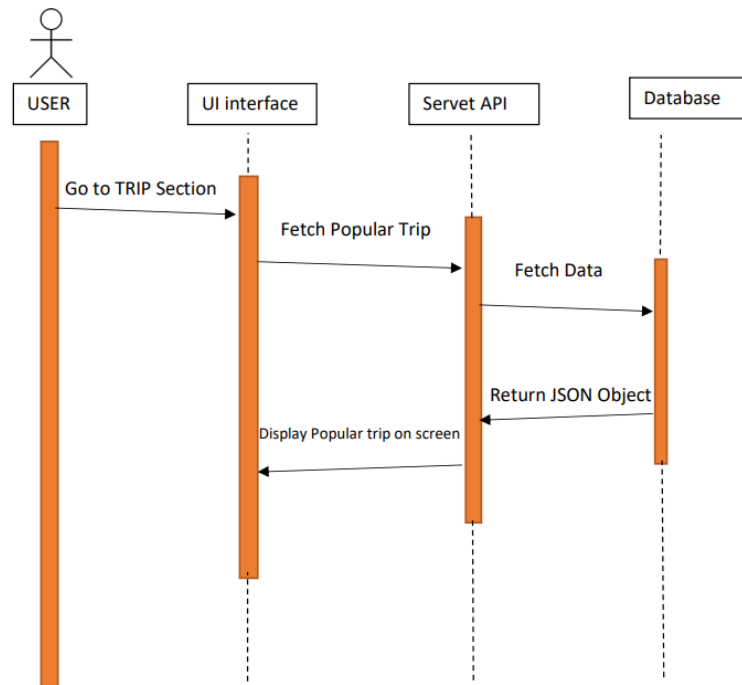


Figure 2.4.5 (a) Sequence diagram of Vaga Trip Process

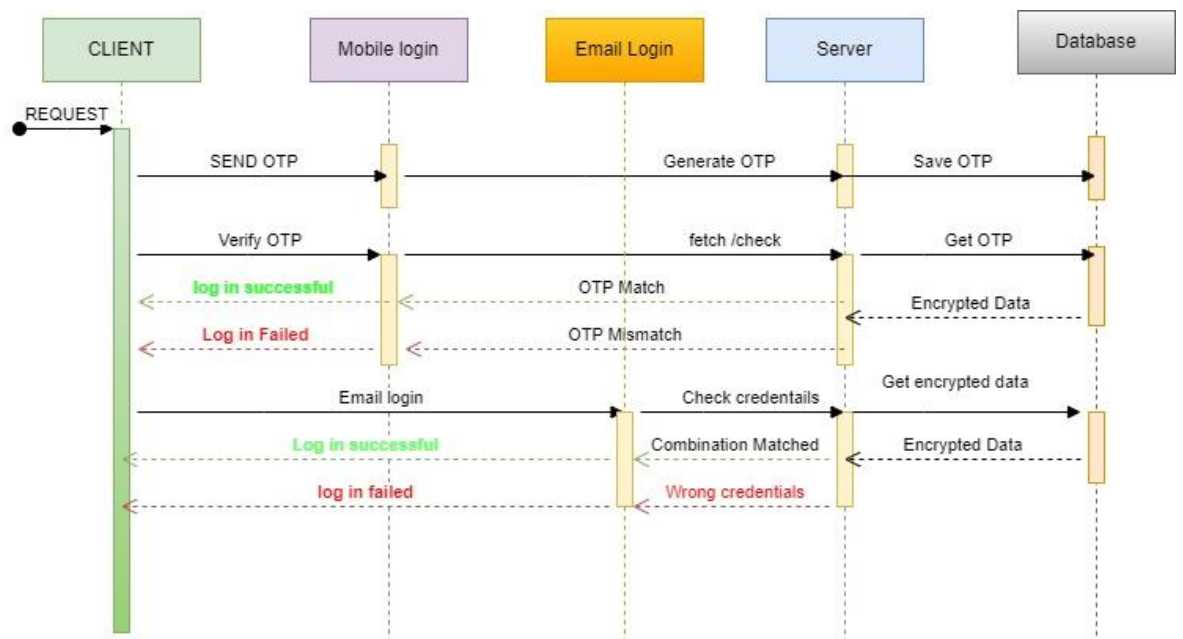


Figure 2.4.5 (b) Sequence daigram of vaga login process

2.4.6 (a) Class Diagram

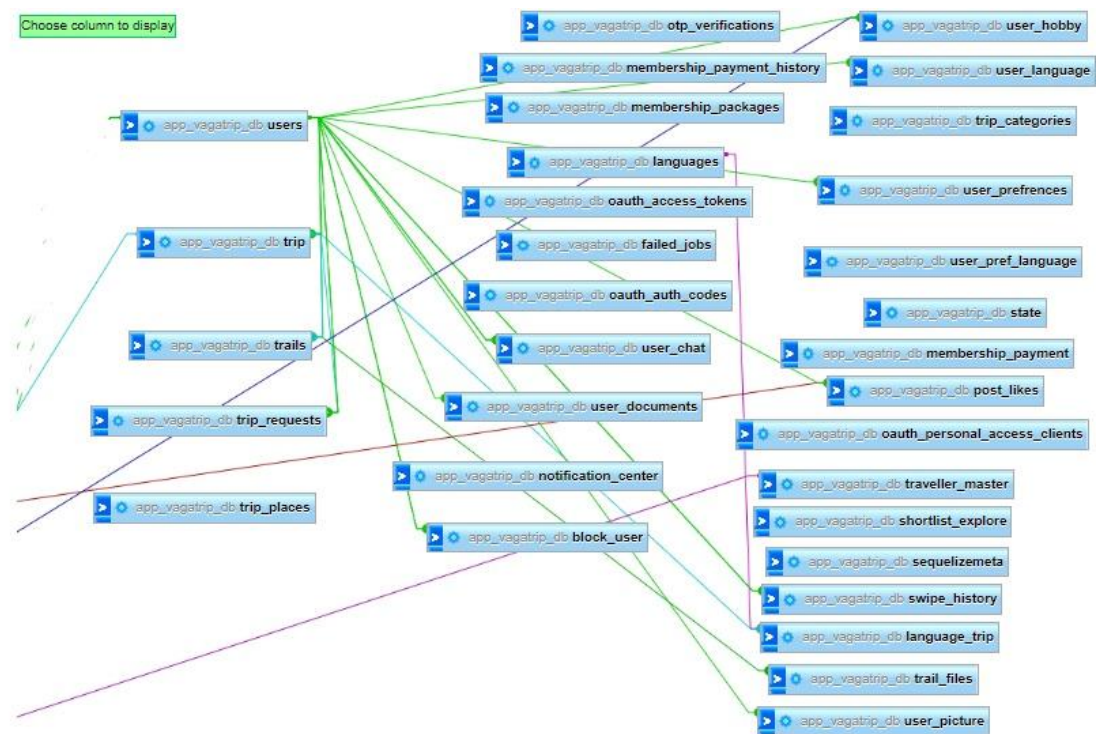


Figure 2.4.6 (a) Class Diagram(a) - Birds Eye View

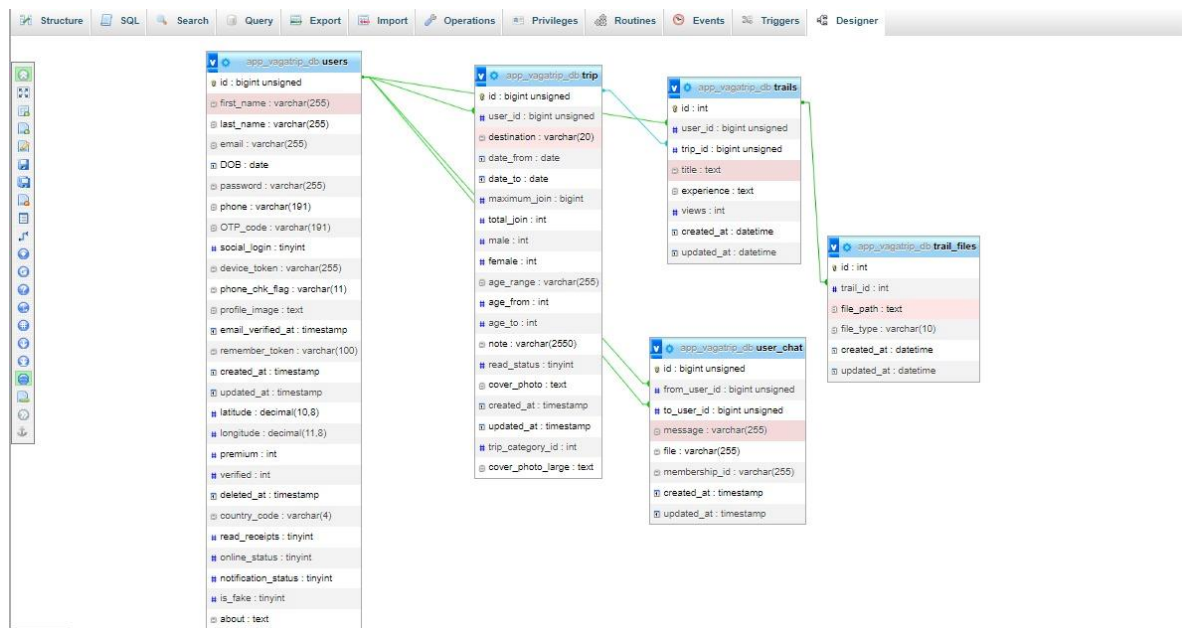


Figure 2.4.6 (b) Class Diagram (b)

3. Implementation

3.1. Implemented Functionality

1. **User Registration and Login:** Users can create their account on Vaga Trip by providing their basic details and can also log in with their social media accounts.
2. **Search for Destinations:** Users can search for destinations and view details about the location, such as its popular attractions, accommodation options, and reviews.
3. **Plan and Book Trips:** Users can plan and book trips by selecting their preferred travel dates, destination, and accommodation options.
4. **View Trip Details:** Users can view their trip details, including flight details, hotel reservations, and car rental bookings.
5. **Notifications and Alerts:** Users receive real-time notifications and alerts regarding their trip, including flight updates, booking confirmations, and reminders.
6. **Social Sharing:** Users can share their travel experiences and photos on social media platforms directly from the app.

3.2. Results and Reports

Vaga Trip app has over 25,000 users, is available on both Android and iOS, and offers features such as trip planning, hotel booking, flight booking, and car rental integration. The app is built using Flutter for the front-end, Node.js with ExpressJS API and Sequelize ORM for the back-end, and is hosted on AWS using RDS as a database service and EC2 for the server.

Regarding the results and reports, Vaga Trip's development team would have access to metrics such as user engagement, user acquisition, retention rate, conversion rate, revenue, and other key performance indicators (KPIs). These metrics can be analyzed to identify strengths, weaknesses, and areas for improvement of the app, and to inform future development and marketing strategies.

SFS Project Tracker

Table 3.2 SFS Project tracker

Sr No	Epic	Story Name	Status
1	Authentication	Splash & Welcome screen story	Completed
2.1	Authentication	Join Now (Non-Registered user)	Completed
		Front end development	Completed
		Backend development	Completed
		API integration	Completed
		API integration	Completed
2.2	Authentication	Sign in (Already registered user)	Completed
		Front end development	Completed
		Backend development	Completed
		API integration	Completed
		API integration	Completed
3	Enter name view	For Newly Registered user	Completed
		Front end development	Completed
		Backend development	Completed
		API integration	Completed
3.1	Selecting two images	Select Photo screen	Completed
		Front end development	Completed
		Backend development	Completed
		API integration	Completed
3.2	Detail: Traveller Type	Screen: List of different type of traveller in list view and search button	Completed
		Front end development	Completed

Sr No	Epic	Story Name	Status
		Backend development	Completed
		API integration	Completed
4	Details: Languages	Screen: List of different type of language in list view and search button	Completed
		Front end development	Completed
		Backend development	Completed
		API integration	Completed
5	Details: Hobby	Screen: List of different type of Hobby in list view and search button	Completed
		Front end development	Completed
		Backend development	Completed
		API integration	Completed
5.1	Trip Section	TRIP - Trip Listing (Share, like, comment, save, follow, report, delete)	Completed
		Front end development	Completed
		Backend development	Completed
		API integration	Completed
5.2	Trip Section	Create Trip with Detail	Completed
		Front end development	Completed
		Backend development	Completed
		API integration	Completed
5.3	Trip Category	Show list of trips on based of category in	Completed
		Front end development	Completed
		Backend development	Completed

Sr No	Epic	Story Name	Status
		API integration	Completed
5.4	Explore	Explore – Get Trending Trips	Completed
		Front end development	Completed
		Backend development	Completed
		API integration	Completed
5.5	Explore	Explore – Add Trips images in trails	Completed
		Front end development	Completed
		Backend development	Completed
		API integration	Completed
6	Chat	Chat - Listing & Detail	Completed
		Front end development	Completed
		Backend development	Completed
		API integration	Completed
6.1	Chat	Chat – video/voice call	Completed
		Front end development	Completed
		Backend development	Completed
		API integration	Completed
7	Search	Search Trips/Trails	Completed
		Front end development	Completed
		Backend development	Completed
		API integration	Completed
8	Fotter menu bar	Fotter Menu --> View Mode	Completed
		Front end development	Completed

Sr No	Epic	Story Name	Status
		Backend development	Completed
		API integration	Completed
9	Notification	Notification - List and Matrix	Pending
		Front end development	Completed
		Backend development	Pending
		API integration	Completed
10	Home Page	Home page - Complete integration	Completed
		Front end development	Completed
		Backend development	Completed
		API integration	Completed
11	Beta testing and Launch	Android and iOS	Pending

3.3. Snapshots

1. Login Page using facebook, Google, Apple Id along with mobile number login

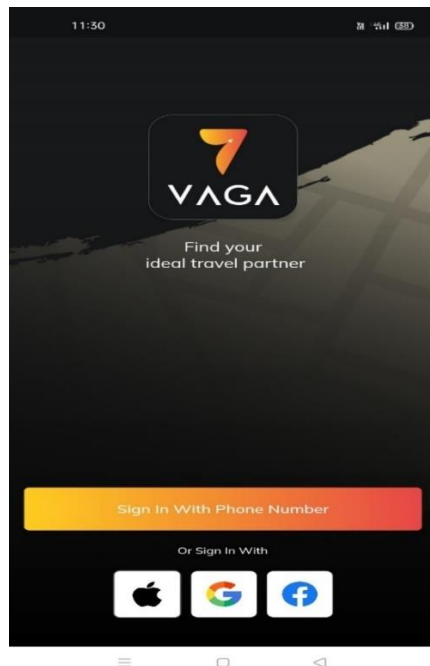


Figure 3.3 (a) Login Page

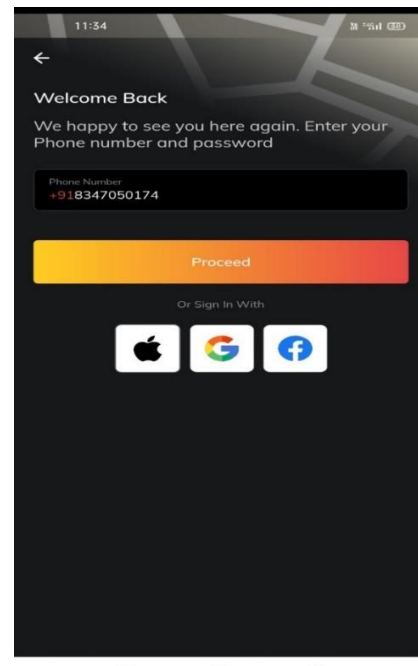


Figure 3.3. (b) Login with mobile number

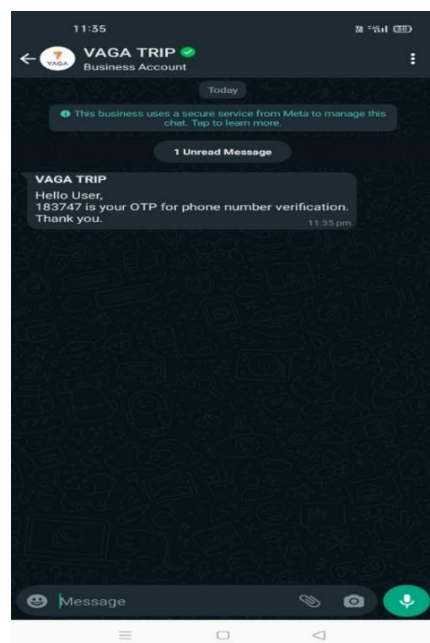


Figure3.3 (c) Receive OTP in WhatsApp

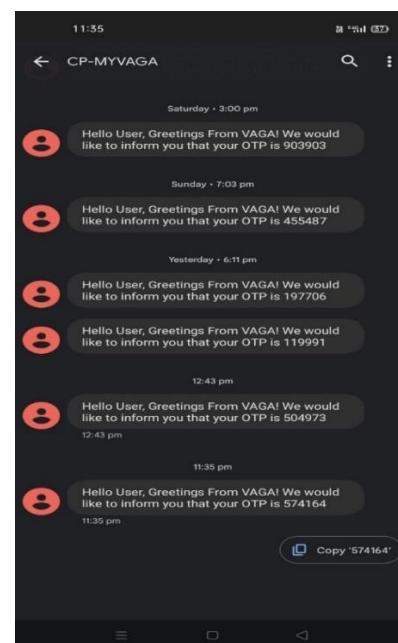


Figure 3.3 (d) Receive OTP in SMS

2. Sign Up page

Figure 3.3 (e) Sign Up Process for Name

Figure 3.3 (f) select two photos

Figure 3.3 (g) After selecting two photos

Figure 3.3 (h) Selecting the best about yourself

3. Search Trip by Category



Figure 3.3 (i) Trip Category

4. Trending trip page

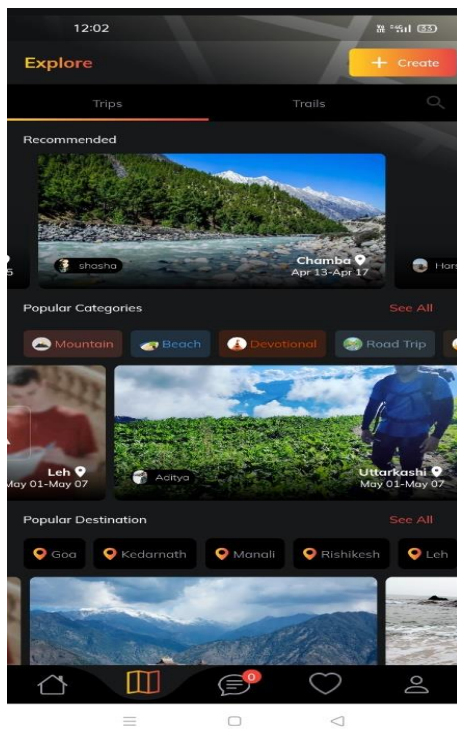


Figure 3.3. (j) Trending Trips

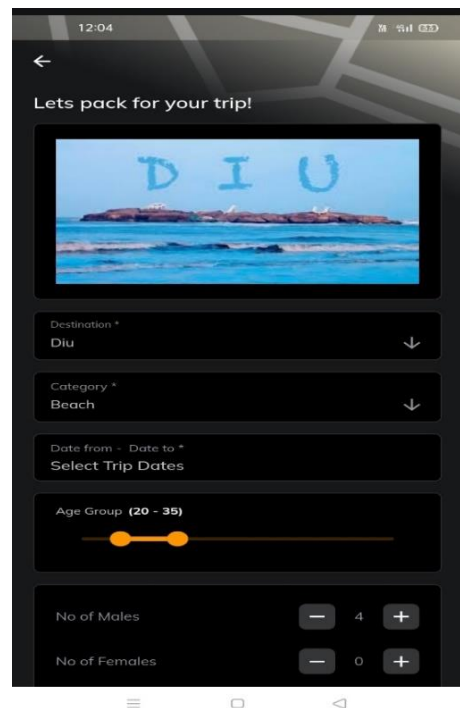


Figure 3.3. (k) Create Trip view

5. Create Trail page [Story]

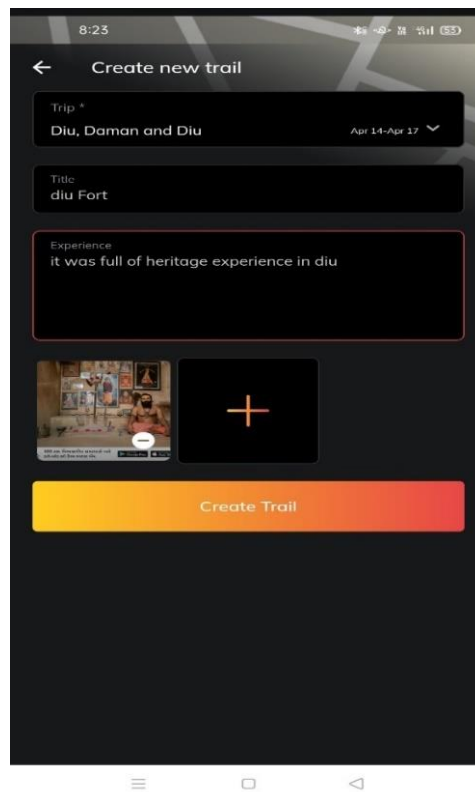


Figure 3.3 (l) Creating Trail

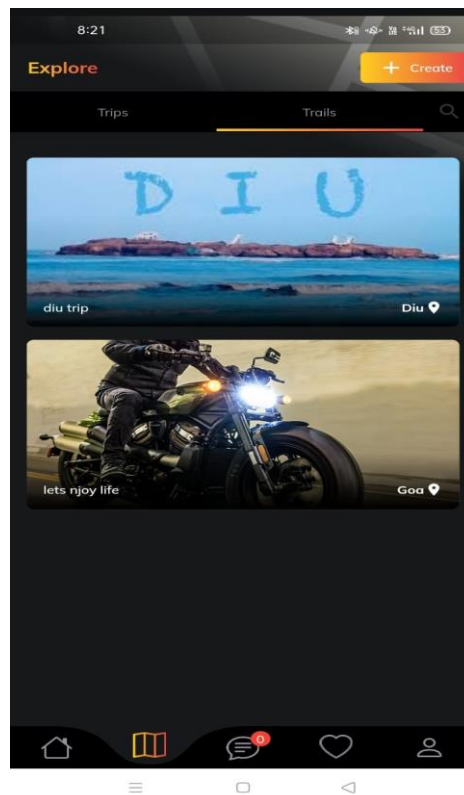


Figure 3.3. (m) trails

6. Find travel buddy page

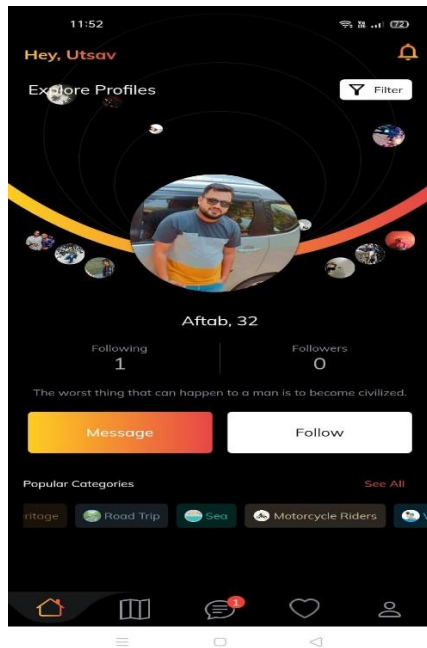


Figure 3.3. (n) Find buddy Swipe feature

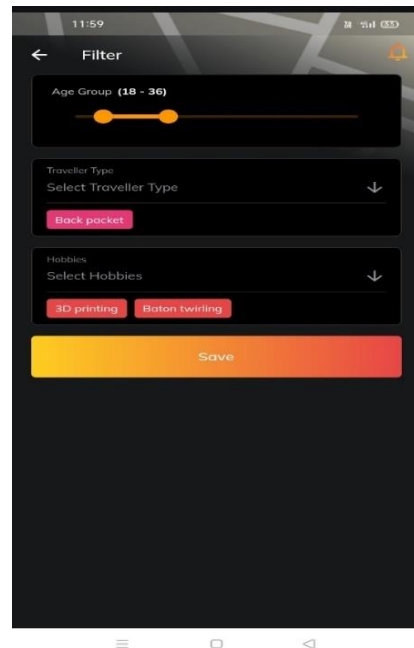


Figure 3.3. (o) Filter Functionality



Figure 3.3 (p) Chat with Buddy

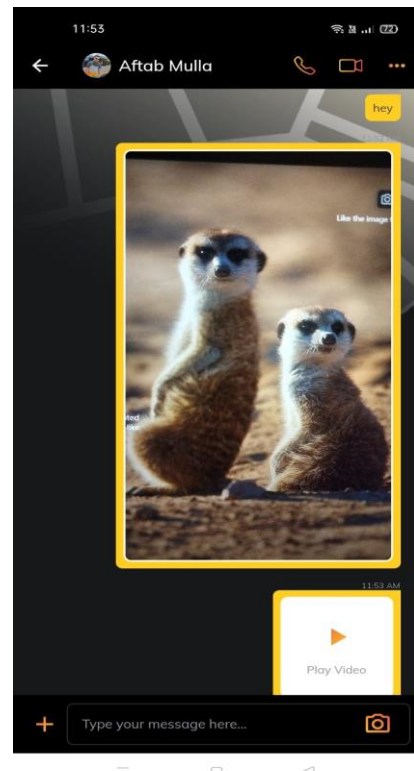


Figure 3.3. (q) Image/Text/Audio/Video/Voice facility

7. Profile

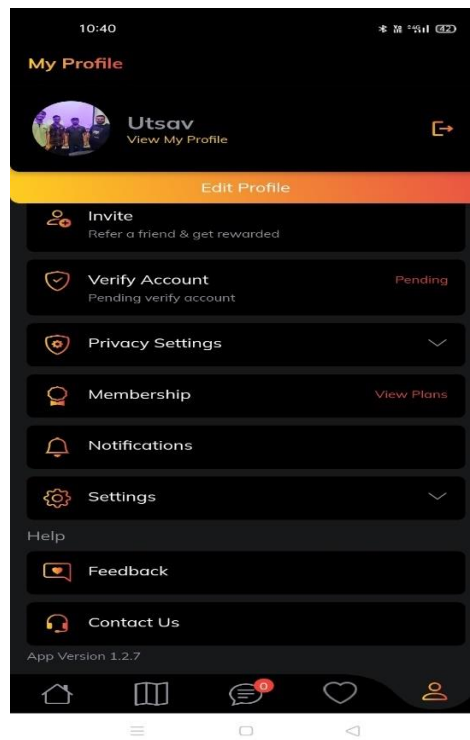


Figure 3.3 (r) My profile

8. Verify Profile

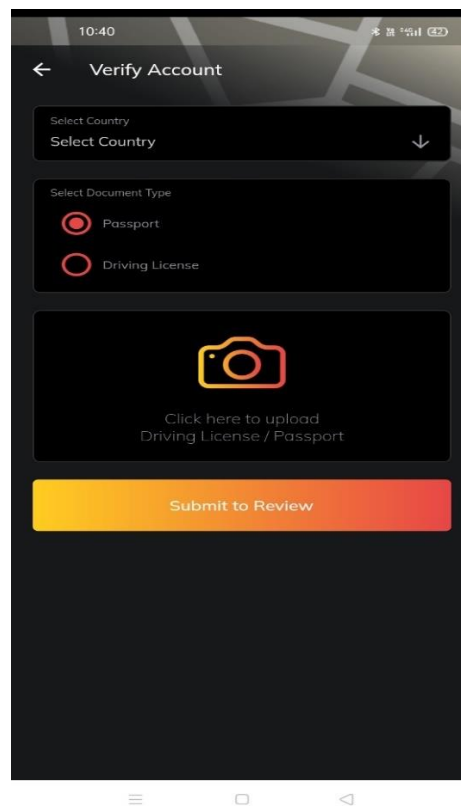


Figure 3.3. (s) Profile Verification View

3.4. Testing and Verification

To test and verify the Vaga Trip app, we can follow a systematic and structured approach. Here are some steps that we can take:

- 1. Unit testing:** This involves testing each individual component of the app, such as classes, methods, and functions, to ensure they are functioning as intended. Automated testing tools can be used to test each unit of code and identify any errors or bugs.
- 2. Integration testing:** This involves testing how the different components of the app work together. We can test how different screens, features, and functionalities interact with each other, to ensure the app is functioning as a whole.
- 3. Functional testing:** This involves testing the app's features and functionalities to ensure they are working as expected. For example, we can test whether users can browse trips, search for travel buddies, communicate in the chat box, and share their travel stories.
- 4. Usability testing:** This involves testing how easy and intuitive the app is to use. We can conduct user testing and gather feedback from users to improve the user experience.
- 5. Performance testing:** This involves testing the app's performance, such as its speed, responsiveness, and stability. We can test the app's performance under different conditions, such as slow internet connectivity or low battery, to identify any performance issues.
- 6. Security testing:** This involves testing the app's security features to ensure they are protecting user data and preventing unauthorized access.
- 7. Compatibility testing:** This involves testing the app on different devices, operating systems, and screen sizes to ensure it works on all platforms.

By following these testing and verification steps, we can ensure that the Vaga Trip app is functioning as intended and providing a positive user experience

Table 3.4 Testing Table

Sr No	Feature/Screen	Summary	Type	Priority	Status
1	SFS	Delete user api should consist of deleting user content overall	Bug	Highest	Dev Done
2	SFS	Delete User should not close app	Bug	Highest	Done
3	Auth > Mobile Number	International OTP to be worked	Bug	Highest	Not Started
4	Hamburger > Opportunities	Feedback page should be visible in profile view	Bug	Highest	Done
5	Profile Section >> post	In my Profile >> in trip >> when User request for trip >> the app crashes	Bug	Highest	Done
6	Profile Section	Update profile photo >> User should be able to update profile photo	Bug	Highest	Done
7	Profile Section	Contact us Page not accessible	Bug	Highest	Done
8	Profile Section	In my Profile >> Invite >> Message app link is not working with onelink.to	Bug	Highest	Done
9	TRIP Section	In trip section when user fills details to create trip at the end when clicks on create button the app crash	Bug	Highest	Done
10	Trail Section	User not able to see popular trails on first priority on screen	Bug	Highest	Done
11	Chat section	In chat Section Profile >> in Videos >> the video dont play and it also gets stretched.	Bug	Highest	Done
12	Chat Section	In chat Section Profile >> Sending images >> images appers to black	Bug	Highest	Done
13	Travel Buddy	Swipe Feature stopped working	Bug	Highest	Done
14	Travel Buddy	User photo not visible and slow loadtime	Bug	Highest	Done
15	Travel Buddy	Folllow/ Follower not showing any increment	Bug	Highest	Done

4. Conclusion

4.1. Summary of the results

Vaga Trip is a mobile application designed to connect travel enthusiasts from around the world. The app's primary aim was to develop an Android app that serves as a travel guide for users during their journeys. Vaga Trip offers new functions that are not commonly found in traditional travel apps, specifically user interaction and trip sharing features.

With Vaga Trip, users can browse a variety of trips and destinations based on their interests, dates, and budget. Once a user finds a trip that matches their preferences, they can easily request to join the trip and communicate with the trip organizer in the chat box. Additionally, users can search for travel buddies based on common interests, travel destinations, and dates.

The app also includes a feature for sharing trip stories, where users can upload pictures and write descriptions of their travel experiences to inspire and inform other travelers. This feature allows users to share their unique perspectives on destinations, experiences, and cultures.

The future scope of work for Vaga Trip could involve integrating hotel booking, flight booking, and car rental features into the app. By integrating these features, users can enjoy a more seamless and convenient travel experience without having to switch between multiple apps or websites. However, some considerations for each integration include selecting reliable partners, ensuring the accuracy of information, and implementing secure payment options.

4.2. Advantages of your work/results/methodologies

1. User-friendly Interface: The app has a simple and intuitive interface, making it easy for users to navigate and find what they need. This helps to enhance the user experience, and keep users engaged with the app.

2. Efficient Development: The use of Flutter and Node.js with ExpressJS API and Sequelize ORM helped in achieving efficient development of the app. Flutter allowed for faster development of the front-end, while Node.js with ExpressJS API and Sequelize ORM provided a robust and scalable back-end.

3. Cloud Hosting: The app is hosted on AWS cloud, which offers a reliable and scalable infrastructure. This ensures that the app can handle a large number of users and traffic, without any downtime.

4. Availability on Both Platforms: The app is available on both Android and iOS, which means it can reach a wider audience. This increases the potential user base and provides more opportunities for growth.

5. Integration Potential: The app has the potential to integrate with other services such as hotel booking, flight booking, and car rental. This would further enhance the user experience and provide more value to users.

6. User Base: With over 25,000 users, the app has a substantial user base. This provides social proof and credibility, which can help to attract new users.

Overall, the work, results, and methodologies used in developing the Vaga Trip app have resulted in a user-friendly, efficient, and scalable app, with a significant user base and potential for further growth.

4.3. Scope of future work.

The future scope of work for Vaga Trip could involve integrating hotel booking, flight booking, and car rental features into the app. Here are some potential benefits and considerations of each integration:

1. Hotel Booking Integration:

By integrating hotel booking into the Vaga Trip app, users can easily search and book hotels in their desired location without having to switch to another app or website. This feature can

make trip planning more convenient and efficient for users. Additionally, the app could offer exclusive deals and discounts on hotels, which can attract more users to the platform. Some considerations for hotel booking integration include selecting reliable hotel partners, ensuring the accuracy of hotel information, and implementing secure payment options.

2. Flight Booking Integration:

Integrating flight booking into the Vaga Trip app can offer similar benefits as hotel booking integration, including convenience and potential cost savings for users. Users can search and book flights directly from the app, and receive real-time flight updates and notifications. The app could also provide personalized flight recommendations based on users' travel preferences and past booking history. However, flight booking integration may involve more complex technical requirements and regulatory compliance considerations.

3. Car Rental Integration:

Integrating car rental into the Vaga Trip app can provide users with a seamless travel experience, especially for those who prefer self-driving or road trips. Users can search and book rental cars in their destination, and receive pick-up and drop-off information directly from the app. The app could also offer user-friendly navigation and trip planning tools for drivers. Some considerations for car rental integration include partnering with reliable car rental companies, providing accurate car information and pricing, and ensuring proper insurance coverage.

4.4. Unique Features of your Innovation/Project

Vaga Trip app can make a significant impact on people's lives by providing them with a comprehensive platform to connect with other travel enthusiasts, find new adventures, and share their travel experiences. Here are some ways in which the app can contribute to the greater good:

1. Promoting Cultural Exchange:

By enabling users to connect with travel buddies and share their travel experiences, Vaga Trip app can promote cultural exchange and understanding. Users from different

backgrounds and regions can learn from each other's perspectives and explore new cultures together. This can foster empathy, respect, and openness, which are essential for building a more tolerant and inclusive society.

2. Supporting Local Tourism:

Vaga Trip app can support local tourism by promoting lesser-known destinations and small businesses. Users can discover off-the-beaten-path places and experiences, which can benefit local communities and economies. Additionally, the app can partner with local tourism authorities and organizations to offer sustainable and responsible travel options.

3. Reducing Environmental Impact:

Vaga Trip app can contribute to reducing the environmental impact of travel by promoting sustainable and eco-friendly travel options. Users can find and join eco-tours, volunteer programs, and other responsible travel initiatives that minimize their carbon footprint and preserve natural resources. The app can also encourage users to adopt sustainable travel practices, such as reducing plastic waste, conserving water, and using public transportation.

4. Enhancing Social Well-being:

Travel can have a positive impact on mental and emotional well-being, as it can reduce stress, improve mood, and boost creativity. Vaga Trip app can enhance social well-being by providing users with opportunities to meet new people, form meaningful connections, and enrich their social lives. Additionally, the app can offer travel-related resources and support for mental health and well-being.

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