Travel Buddy System

A PROJECT REPORT

Submitted by

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180010107063

In partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING

in

Computer Engineering

A.D Patel Institute of Technology

Anand

Gujarat Technological University, Ahmedabad

[January, 2022]

A.D. Patel Institute of Technology

New Vallabh Vidhyanagar Vitthal

Udyognagar, Anand, Gujarat 388121

CERTIFICATE

This is to certify that the project report submitted along with the project entitled Internship has been carried out by Hussain Khozema Vakharwala under my guidance in partial fulfillment for the degree of Bachelor of Engineering in Computer Engineering , 8th Semester of Gujarat

Technological University, Ahmadabad during the academic year 2021-22.

Siddharth Shah — Internal Guide

Dr. Bhagirath Prajapati — Head of the Department

A.D. Patel Institute of Technology

New Vallabh Vidhyanagar Vitthal

Udyognagar, Anand, Gujarat 388121

DECLARATION

We hereby declare that the project report submitted along with the project entitled Travel Buddy System submitted in partial fulfillment for the degree of Bachelor of Engineering in Computer Science to Gujarat Technological University, Ahmedabad, is a bonafide record of original project work carried out by me at under the supervision of Huzefa Shakir and that no part of this report has been directly copied from any students' reports or taken from any other source , without providing due reference.

Hussain Vakharwala

(signature)

ACKNOWLEDGEMENT

I wish to express our sincere gratitude to our External guide Mr. Huzefa Shakir for continuously guiding me at the company and answering all my doubts with patience. I/We would also like to thank my/our Internal Guide Prof. Huzefa Shakir for helping us through our internship by giving us the necessary suggestions and advices along with their valuable co-ordination in completing this internship.

We also thank our parents, friends and all the members of the family for their precious support and encouragement which they had provided in completion of our work. In addition to that, we would also like to mention the company personals who gave us the permission to use and experience the valuable resources required for the internship.

Thus, In conclusion to the above said, we once again thank the staff members of ArthInfosoft for their valuable support in completion of the project.

Thank You
Hussain Vakharwala

ABSTRACTION

Travel Buddy is another great travel app where you can meet local travellers from your desired destination, chat with them to learn about places and plan unique trips. To find your buddy, you only need to enter your destination, choose a preferred gender for your travel buddy and finally add your travel dates. Travel Buddy is also a great alternative to ask locals questions about your planned destination. You can download Travel Buddy on PlayStore and AppleStore free to find your local travel friend.

This widely trusted app lets you make new friends on your trip by connecting you with other solo travelers in your city in real time. It also helps you save money by pairing you people to share taxis, tours, or other travel expenses. You can find a travel mate nearby by searching for people based on age, gender, and interests.

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CHAPTER-1 OVERVIEW OF COMPANY

1.1 INTRODUCTION

We are an Indian Software, Website Design & Applications Development Agency established in 2005 with the vision to be moulded as a magnitude for creative, meaningful and lucrative web solutions. We strive to transmute your browsers into buyers.

We spend countless, endless, caffeine fuelled nights for you to develop “done-for-you” suite of eCommerce & Custom Web Solutions. Our team is made up of technocrats who have entrepreneurial blood running through their veins. We take full ownership of all we put our hands to and we live to deliver massive value – every day.

We offer a comprehensive process that seamlessly takes you from strategy to post-launch, with specialists working on your business goal at each phase. We never cut the corners. We create handcrafted software, web, mobile, web portals and social solutions per rapidly-changing technologies.

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1.2 Company Profile

Table 1.1 Company profile table

Company Name:	ArthInfosoft
Company Type:	Service Base
Address:	306, Hir-Asha Arcade, Sola Gam Rd,opp. Sagar Sangeet Apartment,Kargil, Gujarat 380060
Contact No:	9879310901
Email Id:	info@arthinfosoft.in
Website:	Arthinfosoft.in
Location:	Ahmedabad
Company Head:	Huzefa Shakir

Company Logo:	

CHAPTER-2 INTRODUCTION TO PROJECT

2.1 PROJECT TRIVIA

Table 2.1 Project Trivia

Project Name:	Travel Buddy System
Project Defination:	Travel Buddy System is online management of travellers meeting other traveller while on the same route.
Organization:	Arth Infosoft
Technology:	MongoDB HTML CSS ReactJS
External Guide:	Mr.Huzefa Shakir
Internal Guide:	Siddharth Shah
Team-Size:	2
Developed By:	Hussain Vakharwala and Saumya Dixit
Project Duration:	1st january-2022 to 30th april-2022
Submitted To:	A.D. Patel institute of Technology of Computer Engineering

2.2 PURPOSE

With Travel Buddy app, you can **couch-surf with your local guide**. You can go for a hike with tour companion who knows it better than any travel agent. Travel unfolds many mysteries of human life and it is your chance to know the unknown to accomplish fulfillment of soul. This free app is a blessing for solo travelers.

2.3 OBJECTIVE

The purpose of travel is connected with **building social relationships, opportunities to learn and grow, and commitment**. It gives us the chance to be truly engaged in an activity, to develop new skills and to discover new cultures. It brings us closer to ourselves and others.

2.4 PROJECT SCOPE

This System is developed for creating a application for travellers around the globe to connect with each other while on route so that each traveller can connect with other through the application. This helps each traveller function with the other traveller while accompanying through the application.

2.5 PROJECT PLANNING

The “Travel Buddy System” project development is a series of tasks that can be divided based on the availability of the resources such as time, cost, information, and above all human resources.

2.5.1 Project Phase:

The work implemented the Rapid Application Development(RAD) model in the effort of design and development of iTourism mobile application, due to its ability to reduce development time,

increases reusability of each component which lead to accuracy, and supports the integration of phases which will solve the slower conventional method. In addition to that, user satisfaction is also involved in the process in order for the developed application meet user's need.

The RAD has four important roles; tools, management, method, and people. Figure 1 is the RAD Life Cycle as adopted in this work, which shows the related activities among them.

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RAD has four important roles: tools, management, method and people.

1) Requirements Planning

   The work used a survey questionnaire to determine the requirements for the intended application. The requirements include an onsite observation to identify problems and needs of tourist during their travel beginning from their arrival in airport terminal. Additionally, a comparative observation method was applied to determine the strength and weakness of four popular travel assistive system in Malaysia. This comparative observation was done to discover the differences between the system in term of the content and function.

2) User Design

   This is the functional design stage where the working prototype for the application is built. The critical system component such as the interface flow as well as elements is processed based on the result of the requirements planning before the prototype is built.

3) Construction

   This is the development process at this stage the construction of the application's physical system will completed and the conversion system are built and implemented on the work plans .The phase produces low implemented and high fidelity UI for the iTourism mobile application as well as the flow and elements of the application.

4) Implementation

This is the deployment phase where the application is developed. The work uses the GeoTag to integrate GPS and GIS. It also incorporates hotspots pinpoint using the Geotag location, tourism database, Google maps Engine API, Google maps Direction API, and Apple Maps.

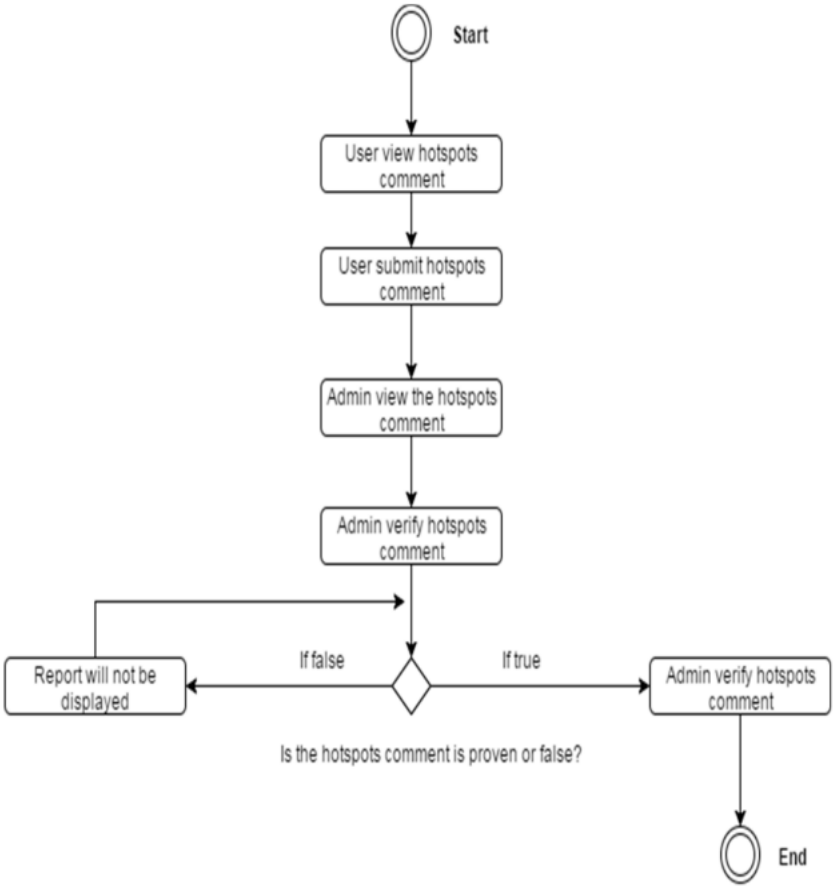


Fig 2.5.1 Flow Chart

2.5.2 Effort Estimation

- Effort estimation consists of predicting how many hours of work and how many employees are needed to develop a application.
- While carrying out feasibility study and requirements by client's total efforts that is required for developing "Travel Buddy" is needed.

2.5.3 Cost Analysis

Fig 2.5.3 Cost Analysis

2.6 PROJECT SCHEDULING

There were about 15 weeks of the project. The time slots allotted to various phases of the project are described below.

1) Planning
- Week-2 (January Week 2)

2) Analysis
- Weeks 3 − 4 (January Weeks 1 − 2)

3) Database Design
- Weeks 3 − 8 (January Week 1− February Week 2)

4) Project Design
- Weeks 3 − 4, 7 − 13 (January Week 1 − 2, February Week 1− March Week 3)

5)Coding
- Weeks 3 − 4, 8 − 13 (January Week 1 − 2, February Week 2− March Week 3)

6) Testing
- Weeks 3 − 4, 12 − 13 (January Week 1 − 2, March Week 2 − 3)

7) Implementation
- Weeks 3 − 4, 12 − 13 (January Week 1 − 2, March Week 2-3)

8) Documentation
- Weeks 8 − 15 (February Week 2, April Week 4)

Month		Jan		Feb				Mar				Apr			
Week	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Phase															
Planning															
Analysis															
Database Design															
Project Design															
Coding															
Testing															
Implementation															
Documentation															

Fig 2.6 Project Schduling

CHAPTER-3 SYSTEM REQUIREMENT STUDY

It is very important to choose appropriate web platform, framework as well as database engine for developing a web-based software. There are two parts of any web-based application: MongoDB and . Both part are crucial and integral parts of any web tool or web application. The ease of their interaction determines the knowledge and practicality of the programmer. If the Frontend is the body of an API, then Backend is the soul.

MongoDB

MongoDB is an open-source document database and leading NoSQL database. MongoDB is written in C++. This tutorial will give you great understanding on MongoDB concepts needed to create and deploy a highly scalable and performance-oriented database.

HTML

HTML stands for **Hyper Text Markup Language**, which is the most widely used language on Web to develop web pages. **HTML** was created by Berners-Lee in late 1991 but "HTML 2.0" was the first standard HTML specification which was published in 1995. HTML 4.01 was a major version of HTML and it was published in late 1999. Though HTML 4.01 version is widely used but currently we are having HTML-5 version which is an extension to HTML 4.01, and this version was published in 2012.

CSS

Cascading Style Sheets (**CSS**) is a style sheet language used for describing the presentation of a document written in a markup language such as HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.

CSS is designed to enable the separation of presentation and content, including layout,color and fonts. This separation can improve content accesibilty; provide more flexibility and control in the specification of presentation characteristics; enable multiple web pages to share formatting by specifying the relevant CSS in a separate .css file, which reduces complexity and repetition in the

structural content; and enable the .css file to be cached to improve the page load speed between the pages that share the file and its formatting.

Separation of formatting and content also makes it feasible to present the same markup page in different styles for different rendering methods, such as on-screen, in print, by voice (via speech-based browser or screen reader), and on Braile-based tactile devices. CSS also has rules for alternate formatting if the content is accessed on a mobile device.

Advantages

Speed of Development

The speed of development is one of its major advantages. If you want to develop an application or a website promptly, it is imperative to consider using Bootstrap. It helps to save your coding effort by offering less CSS functionality and pre-built blocks of code rather than structuring code from the scratch. Ready-made themes of Bootstrap will help achieve your needs through a faster route.

Responsiveness

According to CISCO's predictions, global mobile data traffic will increase approximately 11fold between 2013 and 2018. These statistics points to the need for a responsive website in varied kinds of mobile devices.

Bootstrap is equipped with responsive layout and 12-column grid system that help dynamically adjust the website to a suitable screen resolution. The 'responsive utility classes' feature of Bootstrap enables you to hide / show a certain section of content for a particular screen size.

Consistency

Consistency was the fundamental principle behind the introduction of Bootstrap. It ensures the ultimate consistency regardless of designer/developer, who is working on it. Moreover, the results work uniformly across various browsers and the output remains same.

Customizable

Bootstrap facilitates abundant customization and helps developers in designing tailor made websites, according to their specifications. It has the facility to select any feature that is actually needed to create a customized website. With this feature, one can get rid of what they do not require.

Support

Bootstrap helps to fix issues promptly with an immense support community. Bootstrap also releases continual updates to fix any new issues. Currently, it is being developed, hosted and maintained by GitHub with over 9000 commits and 500 contributors. Bootstrap is an awesome framework with rich features. It is the latest in innovation for responsive development and supports designing of websites and apps faster, easier and better.

CHAPTER-4 SYSTEM ANALYSIS

4.1 STUDY OF CURRENT SYSTEM

An Existing system was initially developed in the year 2008-09 in .NET Framework. Existing system was designed and developed in older framework of .NET and lack of some provisions that are handled by admin of website. Furthermore, existing Rwave framework were using old.

NET technology that was not mobile friendly or mobile responsive.

4.2 CHALLENGES OF PROPOSED SYSTEM

The proposed system was not mobile friendly.

4.3 REQUIREMENTS OF SOFTWARE AND HARDWARE

Table 4.3 Hardware and Software requirements

Hardware Requirements	• Internet Connection • Any Operating system • Processor: i-5 or Bellow i-5 • CPU: 2GB • Memory:200GB
Software Requirements	• Compatible Browser • MS Indentify DLL • MS Entity Framework DLL • Authenticate.Core.Google DLL • Authenticate.Core.Email DLL

4.4 SYSTEM FEASIBILITY

- The foundation stone of any project is the feasibility study. Of course, in a way its a capsule version of the whole of the system analysis and the design process.
- Feasibility study prevents the management of a company to blindly enter a risky zone and thereby protecting the interests of the company. Risk analysis is also a part of the feasibility study.
- Feasibility analysis also looks into the economical as well as the legal aspects of the project. In fact, these two are inevitable factors to be analyzed for any project as in the competitive world and the proprietary nature of economy world over, any moment can bring in the legal battle if the property rights, copyrights, patents and proprietary software are not respected. The feasibility study seeks the answers to the following questions.

i Is the team is well acquainted with the knowledge required and the reference material required to update?

ii Does the team have all the software, hardware and the Web resources avail- able at its perusal?

iii How much time will it require to complete the project?

iv Looking at the advent of the new technology and new tools, v will the project be relevant at the time of its completion?

The following diagram reflects the three prominent types of the feasibility studies.

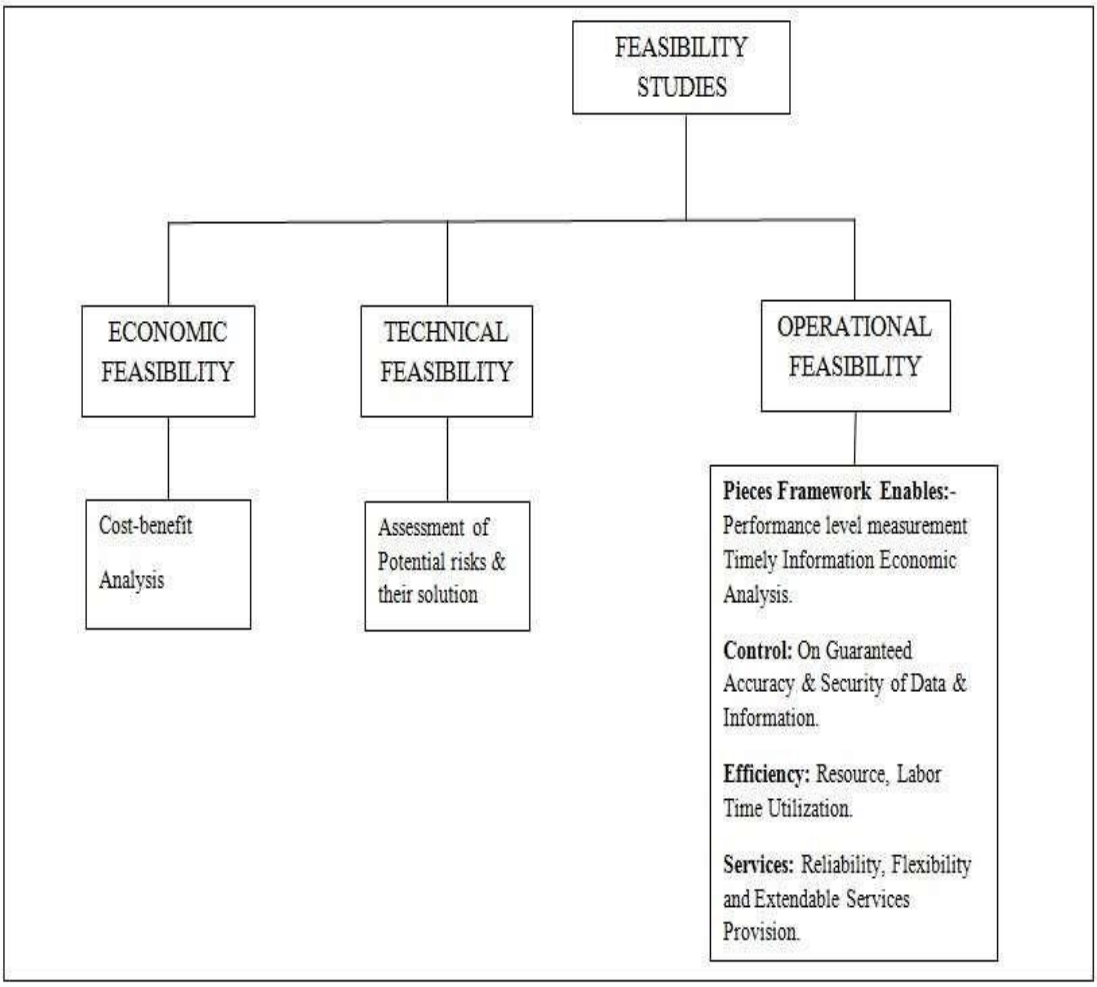


Fig 4.4 Feasibility Study

CHAPTER-5 SYSTEM DESIGN

5.1 SYSTEM OVERVIEW, NO. OF MODULES AND ITS SPECIFICATION.

The app we are implementing has three major requirements. The requirements are finding a place to stay, searching for activities, and saving the places by categories.

Finding a place to stay will consist in the scenario, if the user is staying with family/friends or in a depending on the users need for a lodging, the app will provide a list of all the hotels around the area anda link for the booking process will be provided, to do so outside the app.

Searching for activities will be through the app, the user will need to specify where they are located at receive the information of all the activities they can undertake around the area.

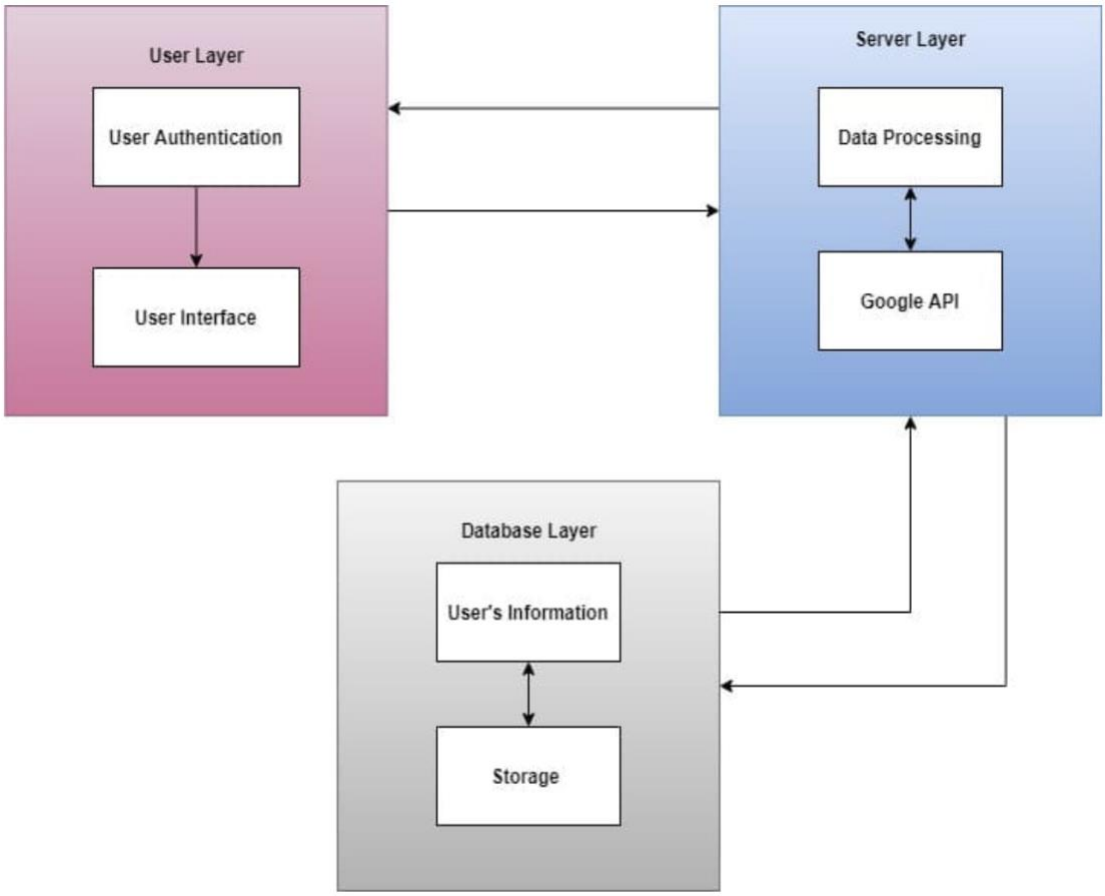
In the app the user will have the ability to save the places they have visited or activities they have already experienced. This information can be stored under

specific categories for the user to have easy access to it later. As a bonus, the user will be able to receiverecommendations based on their saved data. That way the user will have something they might want to add to their vacation plan.

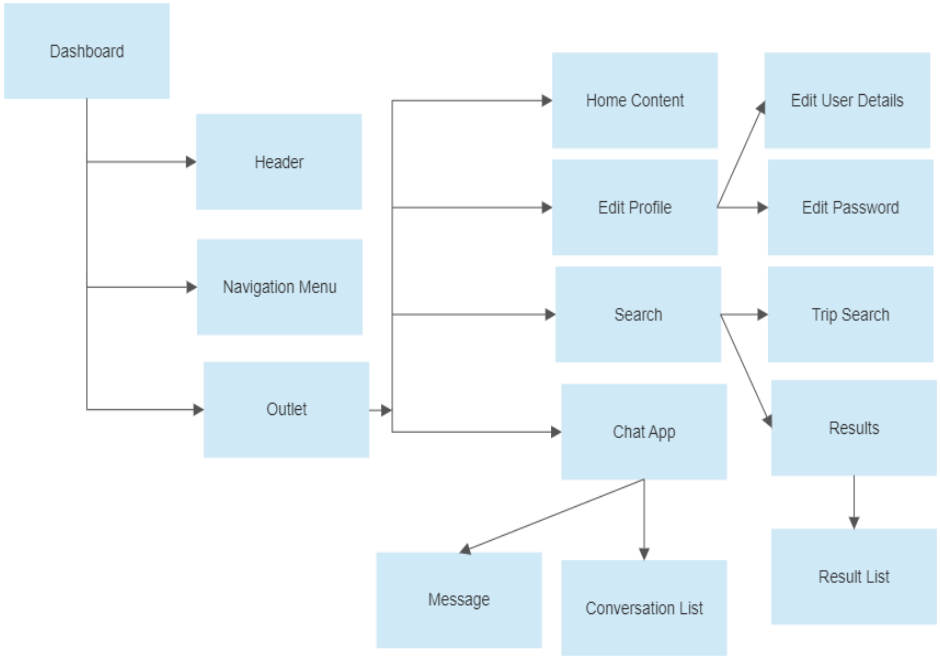
5.2 SYSTEM DESIGN DIAGRAM

5.2.1 Data flow diagram

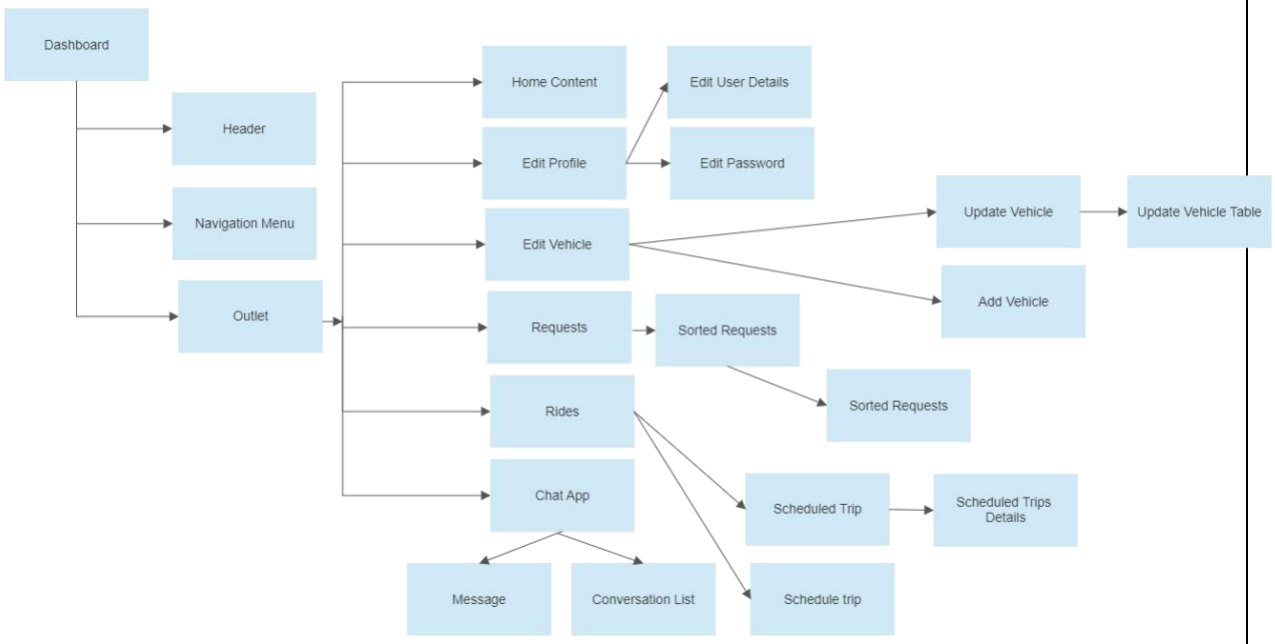
5.2.2 Data Flow Diagram



5.2.3 Patron Components



5.2.4 Captina Components



5.3 DATA TABLES:

Sr No. 1		
Table: Role		
field	**DataType**	**Constraints**
roleId	objectID	pk
roleName	String	not null, unique

Sr No. 2		
Table: User		
field	**DataType**	**Constraints**
userId	objectID	pk
firstName	String	not null
email	String	not null
contactNumber	String	not null
password	String	not null
roleId	objectID	fk role
gender	char	not null

Sr No. 3		
Table: vehical		
field	**DataType**	**Constraints**
vehicalID	objectID	pk
catogery	String	not null
capacity	String	not null
registrationNumber	String	not null,unique
userid	objectID	fk user
isActive	integer	boolean

Sr No. 4		
Table: city		
field	**DataType**	**Constraints**

cityID	objectID	pk
cityName	String	not null
latitude	float	not null
longitude	float	not null

Sr. No. 6		
Table: baseFairType		
field	**DataType**	**Constraints**
baseFairTypeId	objectID	pk
pricePerKm	String	not null
minimumFair	String	not null

Sr No. 7		
Table: trip		
field	**DataType**	**Constraints**
tripid	objectID	pk
captainid	objectID	fk user
vehicleid	objectID	fk vechicle
startLocationLat	float	not null
startLocationLog	float	not null
endLocationLat	float	not null
endLocationLog	float	not null
customFairAmount	integer	not null
baseFairTypeId	objectID	fk basefair
startLocationCityId	objectID	fk city
endLocationCtiyId	objectID	fk city
tripDate	string	not null
tripTime	string	not null

Sr No. 8		
Table: trip_passengers		
field	**DataType**	**Constraints**
trippassengersid	objectID	pk
tripid	objectID	fk trip
userid	objectID	fk user
isAccepted	string	not null

Sr No.9		
Table: Vehicle Category		
field	**DataType**	**Constrain**
categoryId	objectID	pk
category	string	not null

Sr No.10		
Conversation		
field	**DataType**	**Constrain**
conversationId	objectID	pk
members	Array	not null
associatedTrips	objectID	fk trips
createdAt	date time	not null
updatedAt	date time	not null

Sr No 11		
Messages		
field	**DataType**	**Constrain**
messageId	objectID	pk
conversationId	string	not null
senderId	string	not null
text	string	not null
createdAt	date time	not null
UpdatedAt	date time	not null

5.4 System Output information (Screen shots):

Admin Side Screenshots:

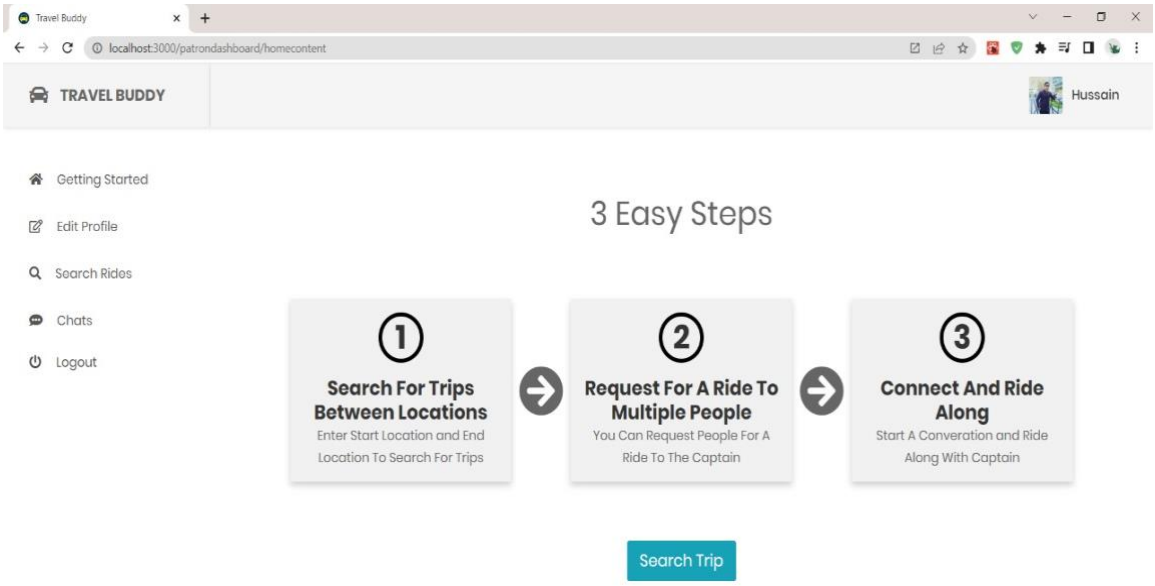


Fig 5.4.1 Three Easy Steps

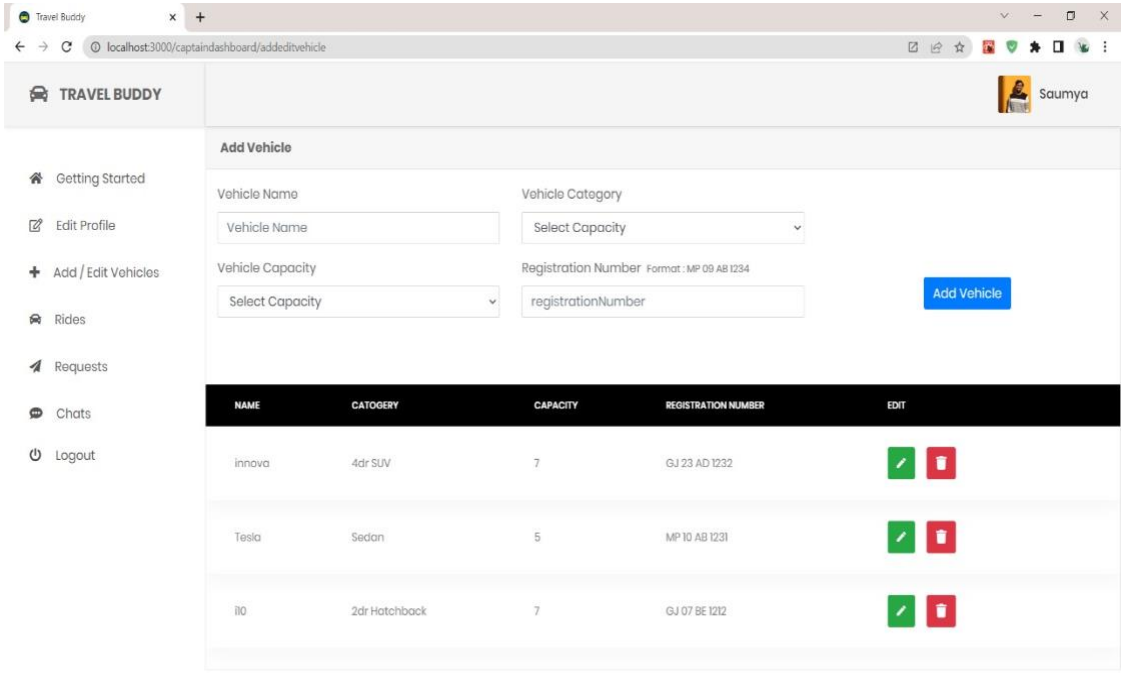


Fig 5.4.2 Add Vehicle

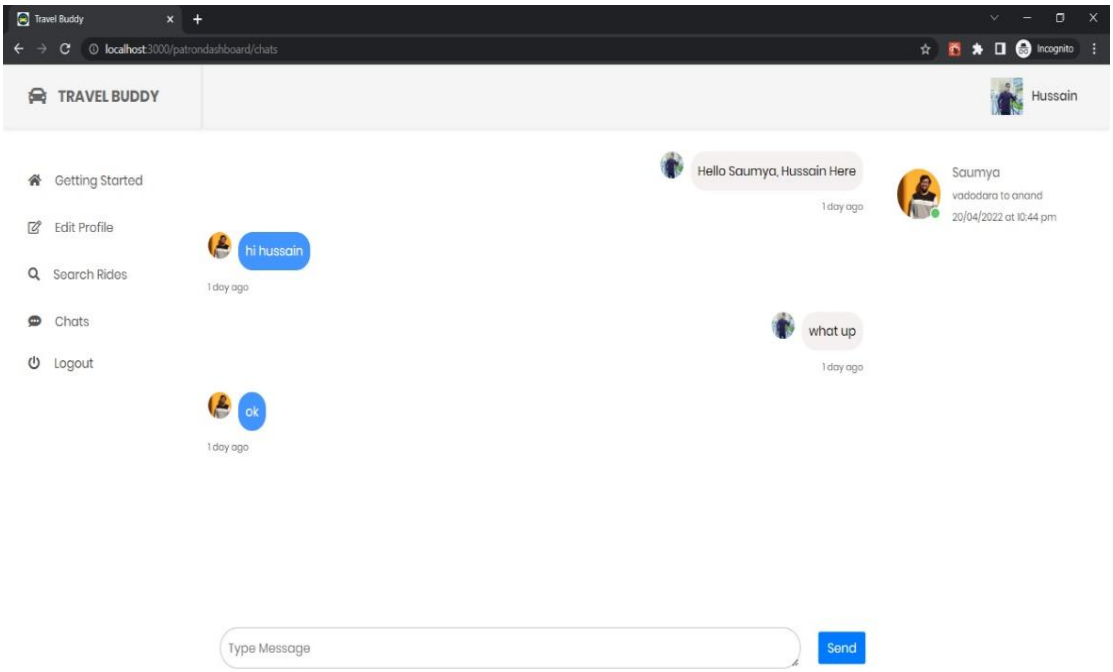


Fig 5.4.3 Contact

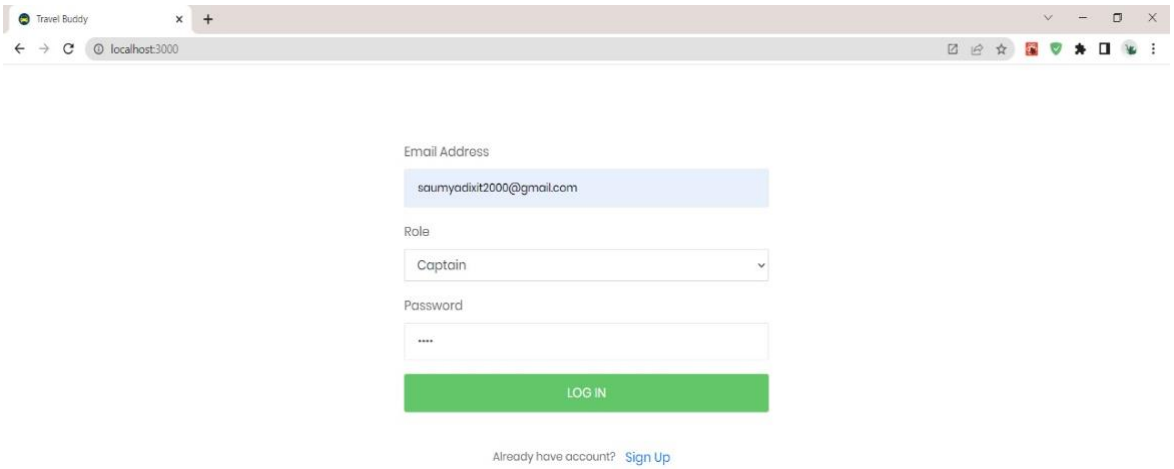


Fig 5.4.4 Login Captian

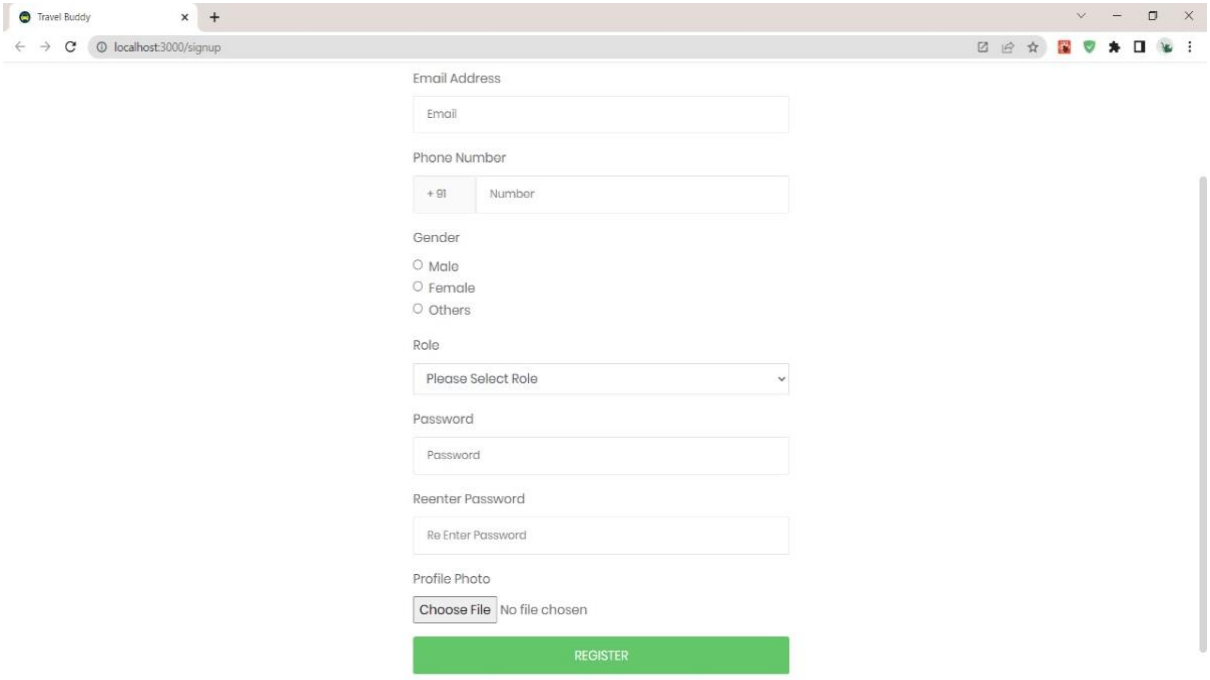


Fig 5.4.5 Register

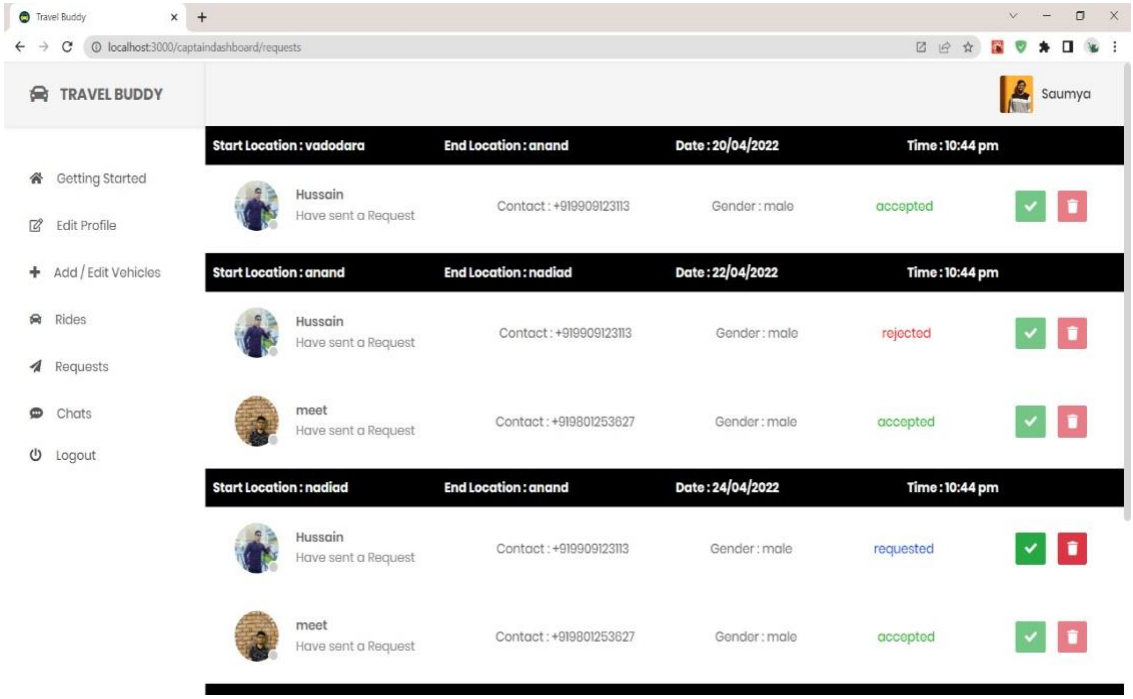


Fig 5.4.6 Location

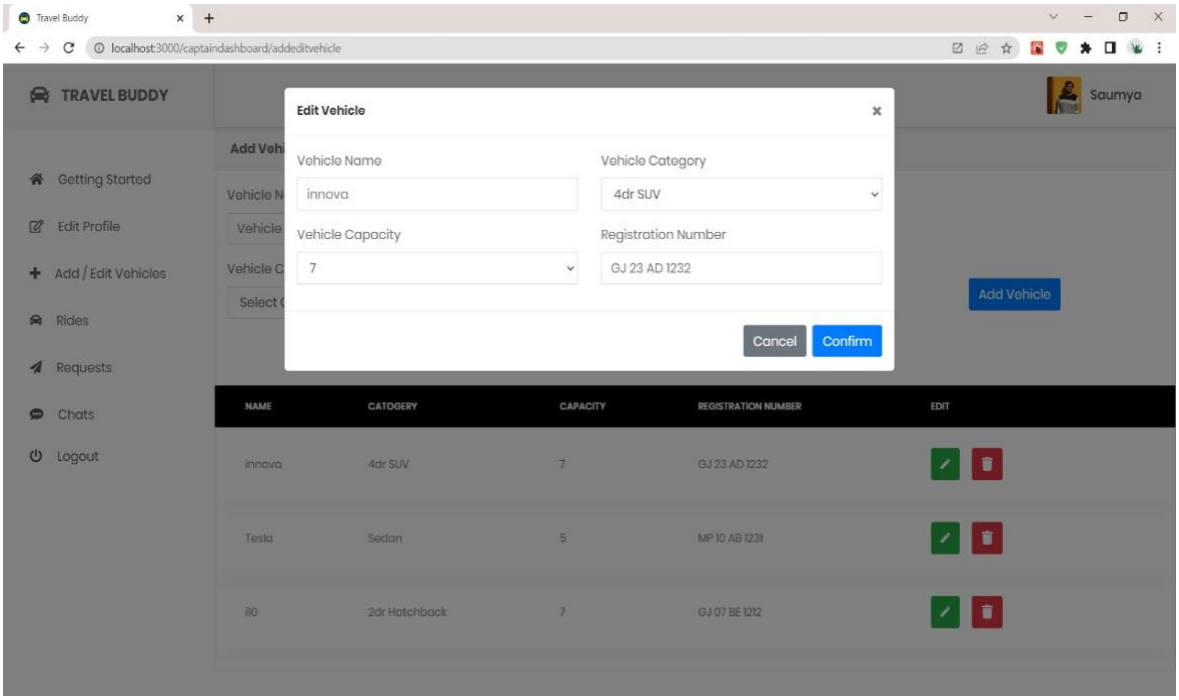


Fig 5.4.7 Vehicle Name

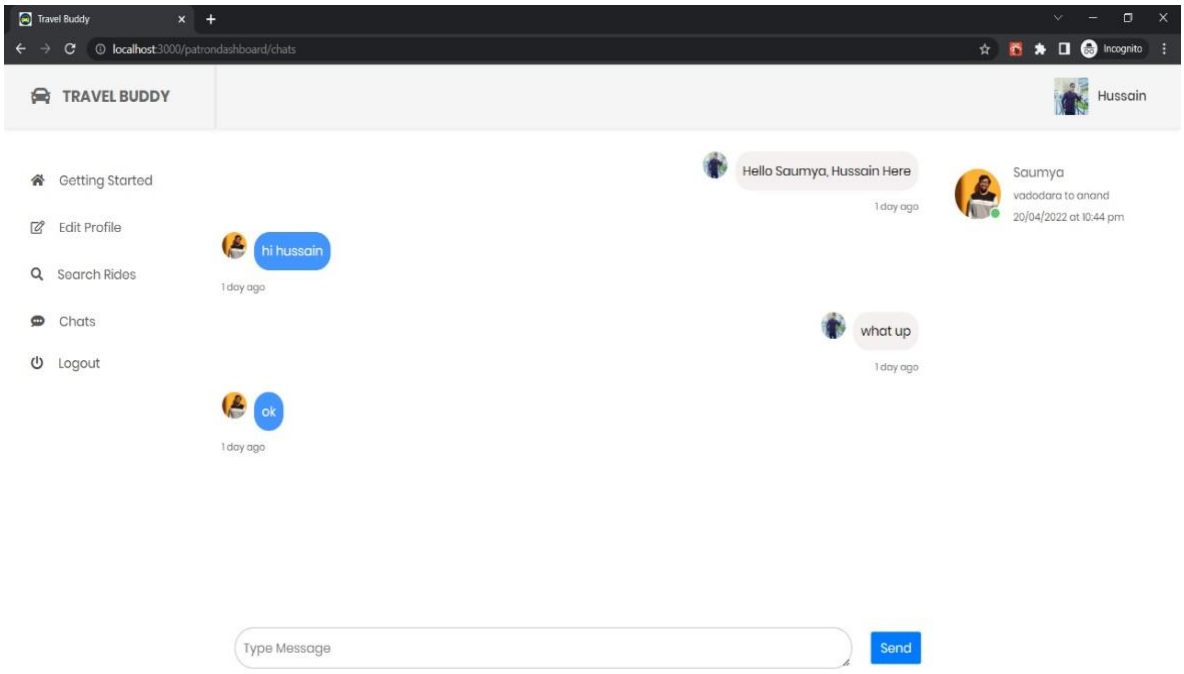


Fig 5.4.8 Contact

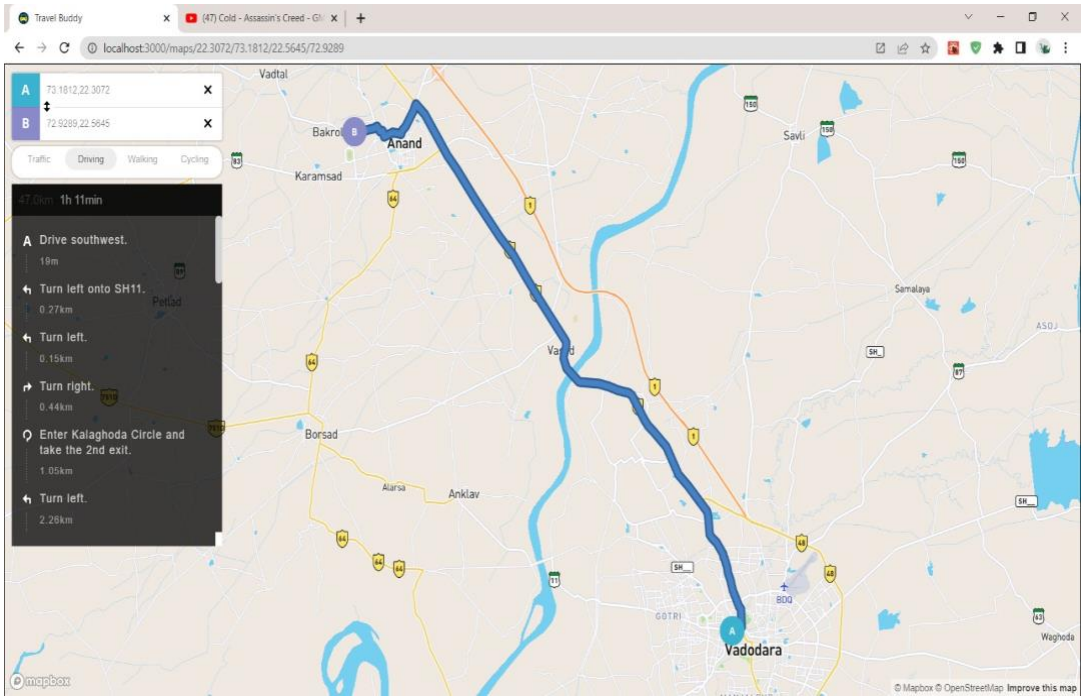


Fig 5.4.9 Route

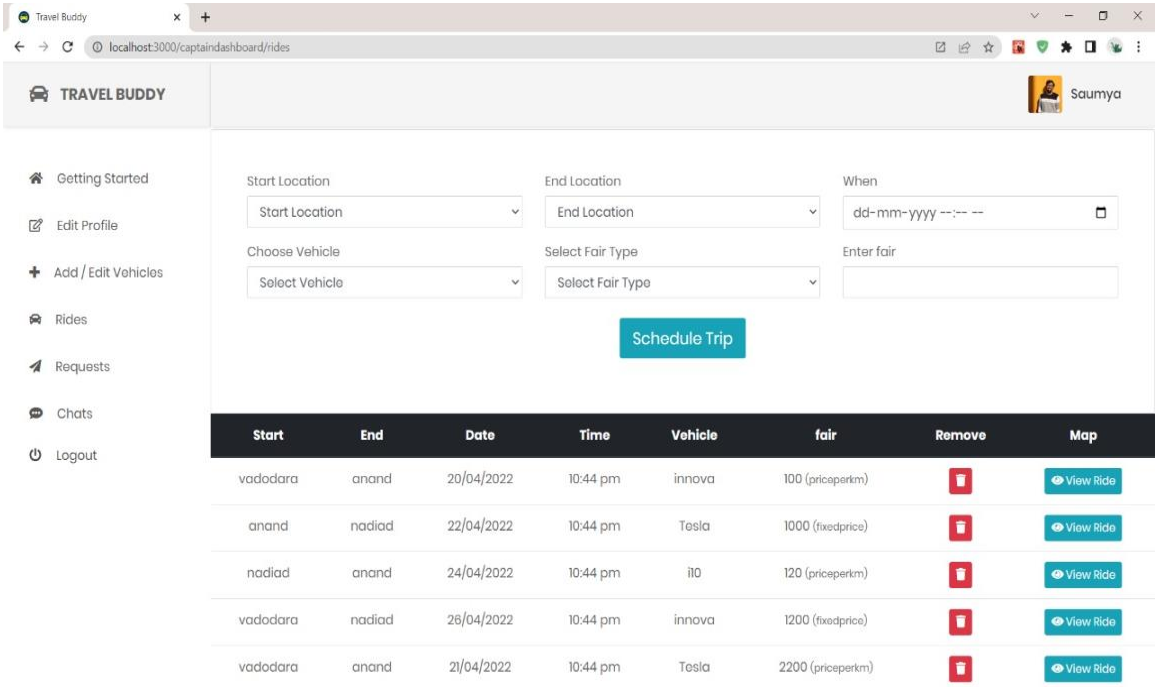


Fig 5.4.10 Schedule Trip

CHAPTER-6 IMPLEMENTATION PLANNING

6.1 IMPLEMENTATION ENVIRONMENT

- Our system provides a Graphical User Interface (GUI) to users
- It means that the users can operate the system graphically with the use of mouse and clicking on various controls.
- Also, the keyboard can be used where shortcut keys are defined.
- Also, our website is multiuser. Multiple operators can use it at a time.
- Format of all the designs, graphical view, themes etc. remains same for all users.
- Access is depending on authentication of user. Rules are defined as authentication.
- Website is available on web from access anywhere.

6.2 CODING STANDARDS

Naming conversion for global and local variables:

A possible naming convention can be that global variable names always start with a capital letter and local variables names are made of small letters.

Error return conventions and exception handling mechanisms

The way error conditions are reported by different functions in a program and the way common exception conditions are handled should be standard. For example: different functions while encountering an error condition or exception returns a proper error/exception message.

CHAPTER-7 TESTING

Software testing is defined as an activity to check whether the actual results match the expected results and to ensure that the software system is Defect free. It involves execution of a software component or system component to evaluate one or more properties of interest. Software testing also helps to identify errors, gaps or missing requirements in contrary to the actual requirements. It can be either done manually or using automated tools. Software testing is a critical element of software quality assurances and represents the ultimate review of specification design and coding. Testing is an exposure of a system to trial input to see weather it meet user's needs. Testing can show that system is free of errors. Testing finds errors it does not correct error. Software success is a quality product , on time and within cost.

Fig 7.1 Testing

7.1 Testing is advantageous in several ways:

- Testing helps in identifying and fixing bugs before the software becomes operational; the risk of failure can be reduced considerably.

- Any software does not necessarily work alone. Sometimes it has to integrate and function with other existing legacy systems, as need be.
- In such cases software testing gives a much needed assurance that it will work suitably and its performance won't get affected due to the integration.
- Testing is a part of the software development process. It performs a root cause analysis for which helps in making it more efficient.
- Testing is carried out keeping the end user in mind. With a foresight for the scenarios that the end user will possibly face, tests are carried out and their accuracy and efficiency are duly noted for any discrepancies.
- Reliability of software can be measured by certification or its conformation with any set technical standard. This helps in creating confidence and a healthy business relationship

The testing sub-process includes the following activities in a phase dependent manner:

- Create Test Plans.
- Create Test Specifications.
- Review Test Plans and Test Specifications.
- Conduct tests according to the Test Specifications, and log the defects.
- Fix defects, if any
- When defects are fixed continue from activity

7.2 Testing Strategy:

The development process repeats this testing sub-process a number of times for the following phases.

- Unit testing
- Integration testing
- System testing
- Acceptance testing
- Unit Testing tests a unit of code (module or program) after coding of that unit is completed.
- Integration Testing tests whether the various programs that make up a system, interface with each other as desired, fit together and whether the interfaces between the programs are correct.
- System Testing ensures that the system meets its stated design specification.

- Acceptance Testing is testing by the users to ascertain whether the system developed is a correct implementation of the Software Requirements Specification.
- Testing is carried out in such a hierarchical manner to ensure that each component is correct and the assembly/combination of components is correct.
- Merely testing a whole system at the end would most likely throw up errors in components that would be very costly to trace and fix.
- We have performed both Unit Testing and System Testing to detect and fix errors.
- A brief description of both is given below.

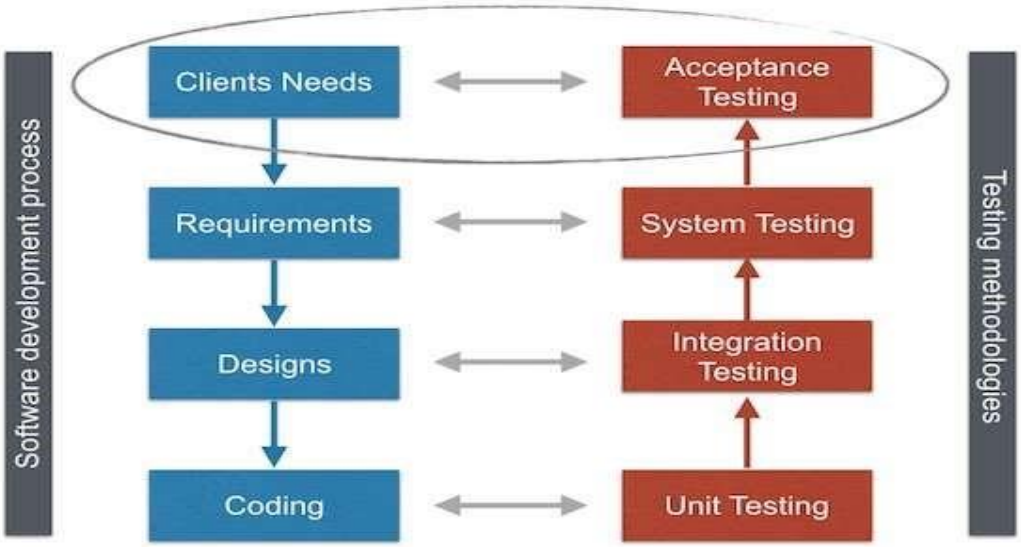


Fig 7.2 Testing Strategy

7.3 TEST CASE FOR LOGIN FORM:-

TestCase Id	Test Case	Input	Expected Output	Actual Output	Result
1	Name	“ ”	Name Required	Name Required	Pass
		Neell	Invalid Name	Invalid Name	Pass
		Neel	Input Accepted	Input Accepted	Pass
2	password	“ “	Password Required	Password Required	Pass
		Kpp133243243234	Enter 6 to 12 char	Enter 6 to 12 char	Pass
		Kp	Enter 6 to 12 char	Enter 6 to 12 char	Pass
		123456	Input Accepted	Input Accepted	Pass

CHAPTER-8 CONCLUSION AND DISCUSSION

This iTourism application is important for Tourism Malaysia to further outreach its performance in promoting Malaysia both locally and internationally. The tourism industry should take the advantage of this application to get visitors' feedback on their products and or services. The application also offers tourist a secured journey, as they can reconfirm the information and the places while matching it with the data from GPS.

The application could benefit Tourism Malaysia, tourists, and tourism operators, especially in keeping track of the ongoing tourism events and updated places. They can refer to the map inside the mobile apps that show the updated tourist hotspots and share the information with their friends and families, who plan to visit Malaysia.

The e-Advertisement that is also embedded inside this application enables the business to business (B2B) marketplace. Food & Beverages, accommodation, entertainment, and other related businesses can share this advantage in extending and enhancing their potential by advertising their businesses in the application in the effort to catch tourists' attention. It is with this ability alongside other features of the iTourism application is predicted to boost the tourism business in Malaysia.

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