WEB BASED RE-FUELING SERVICE

BY

MD MEZBAUDDIN
ID: 173-15-10438

SAZZAD AHAMED
ID: 173-15-10455

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

Supervised By

MS. ZERIN NASRIN TUMPA

Lecturer,

Department of CSE

Daffodil International University

DAFFODIL INTERNATIONAL UNIVERSITY

DHAKA, BANGLADESH

SEPTEMBER 2022

APPROVAL

This Project titled **"WEB BASED RE-FUELING SERVICE"** ,submitted by Sazzad Ahamed, ID No: 173-15-10455, Mezbauddin ID No: 173-15-10438 to the Department of Computer Science and Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 13-sep-2022.
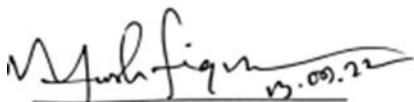
BOARD OF EXAMINERS

Dr. Sheak Rashed Haider Noori
Associate Professor and Associate Head
Department of Computer Science and Engineering
Faculty of Science & Information Technology
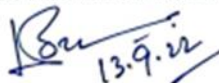Daffodil International University

Chairman

Sazzadur Ahmed (SZ)
Assistant Professor
Department of Computer Science and Engineering
Faculty of Science & Information Technology

Internal Examiner

Mushfiqur Rahman (MUR)
Senior Lecturer
Department of Computer Science and Engineering
Faculty of Science & Information Technology
Daffodil International University

Internal Examiner

Dr. Md Sazzadur Rahman
Associate Professor
Institute of Information Technology
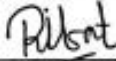Jahangirnagar University

External Examiner

DECLARATION

We hereby declare that, this project has been done by us under the supervision of **MS. ZERIN NASRIN TUMPA, Lecturer, Department of CSE** Daffodil International University. We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.
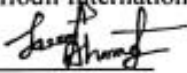
Supervised by:

MS. ZERIN NASRIN TUMPA
Lecturer
Department of CSE
Daffodil International University

Submitted by:

Md Mezbauddin
ID: 173-15-10438
Department of CSE
Daffodil International University

Sazzad Ahamed
ID: 173-15-10455
Department of CSE
Daffodil International University

ACKNOWLEDGEMENT

First, we express our heartiest thanks and gratefulness to almighty God for His divine blessing making us possible to complete the final year project/internship successfully.

We are really grateful and wish our profound our indebtedness to **MS. Zerin Nasrin Tumpa, Lecturer,** Department of CSE Daffodil International University, Dhaka. Deep Knowledge & keen interest of our supervisor in the field of "**Web Based Re-fueling Service**" to carry out this project. His endless patience, scholarly guidance, continual encouragement, constant and energetic supervision, constructive criticism, valuable advice, reading many inferior drafts, and correcting them at all stages have made it possible to complete this project.

We would like to express our heartiest gratitude to **Dr. Touhid Bhuiyan,** Professor and Head**,** Department of CSE, for his kind help to finish our project and also to other faculty members and the staff of CSE department of Daffodil International University.

We would like to thank our entire classmate at Daffodil International University, who took part in this discussion while completing the course work.

Finally, we must acknowledge with due respect the constant support and patients of our parents.

ABSTRACT

One-stop web applications are available in a wide range of possibilities and on a sizable market. Web applications that provide one-stop shopping are growing in popularity. There are many different types of one-stop web applications that are used for different functions or curricula. In the modern world, the internet, the web, and mobile gadgets are a part of everyone's lives. The main functions of mobile devices are web browsing and service web applications. With the name "On demand Re-fueling Service," we created a website application. The urgent assistance of those who are in danger or challenging circumstances is the major goal of our endeavor. We are aware that communicating with a client in an emergency may be quite difficult for the service team. Never give advance notice when making an emergency aid request. In case of societal emergencies, assistance is accessible via this online application. A vehicle's demand for fuel, a home's or a vehicle's requirement for LPG gas, an accident, and external emergencies are among the crises (vehicle service provider and washer). A person can then utilize the program to report his whereabouts to the police or his trusted contacts if he finds himself in a precarious circumstance.

TABLE OF CONTENTS

CONTENTS	PAGE NO

CHAPTERS	PAGE NO

LIST OF FIGURES

CHAPTER 1
INTRODUCTION

1.1 Introduction

Technology has significantly changed the globe during the last ten years. With the use of technology, we are offering an innovative solution to the issue. We are dealing with the problem. We are fostering a relationship between the client and the service. so that everyone who uses our site can profit. The majority of people detest getting their automobiles serviced, their oil changed, or their LPG gas cylinders filled. They will be in even more jeopardy if the automobile stops suddenly while he is driving for oil. For the home, LPG Gas is important as well. They also don't know where to get auto repair shops, LPG gas for emergencies, or car oil. They are in a horrible predicament right now, therefore we are here to help.

Clients are important to us. The car needs upkeep to run effectively, which requires some effort. As our emergency service staff will take care of the client's situation, the client need not be concerned. Customer happiness is something we care about. When or wherever a client needs assistance, they can submit a request on our website, and we will send a request for an oil, gas, accident, or car service provider as soon as we can to the client's location. The emergency service team will transport the cars if necessary, to a nearby repair shop for a more thorough examination. We also offer doorstep service after the service. We'll also provide an ambulance and more staff to deal with accidents.

1.2 Motivation

Nowadays, selecting a reliable service provider during an emergency or crisis causes people great suffering. When validating such a little service in private or home settings, dependability and safety are crucial. Occasionally, offering such services may be significantly influenced by cost or payment. To ensure that our solution meets current needs and provides current solutions, we take into account all of the aforementioned issues.

1.3 Objective

This web application is something we wish to develop. The following functions of this app will be available:

- Emergency Oil Refilling from Anywhere;
- Emergency Refilling of LPG Gas Cylinders from Anywhere.
- Any solution to respond to a vehicle collision.
- Smart Service includes a reservation system for vehicles.

1.4 Expected Outcome

The objective of this web-based project is to develop a service-based platform that would allow users to access all the services they require from a single website. The user can monitor the services they ordered. Along with the website's registration and login procedures, users can also use Facebook and Google to streamline their lives. Utilizing this web application should be as easy as feasible. We could picture "On demand Re-fueling Service" as one of the most cutting-edge service platforms, with a user interface that was highly intuitive and simple for administrators to use.

1.5 Report Layout

Chapter 1: Introduction

In this chapter, introduction, objectives, motivation and the expected outcome of our project will be discussed.

Chapter 2: Background Study

Chapter 2 includes the works related with our app, comparative studies and the challenges we had to face to develop this app.

Chapter 3: Requirement Specification

In chapter 3, requirement specification such as business process modeling, requirement analysis and modeling, logical data model and design requirement will be discussed.

Chapter 4: Design Specification

The description of Front-end design, back-end design, interaction design and UX and implementation requirements are given in this section.

Chapter 5: Implementation and Testing

The implementation of database, implementation of front-end design, implementation of interaction, testing implementation, test results and reports are discussed in this chapter.

Chapter 6: Conclusion and Future Scope

Chapter 6 discusses about the conclusion and the future scope of our app.

CHAPTER 2
BACKGROUND STUDY

2.1 Introduction

The terminology used in this project is conceptually explained in this chapter. The entire planning and pre-development process were discussed in this location. The examination of prior, comparable work is another major topic of the chapter. There was also a new part that described the challenges we faced while developing the software. With this concept, clients might easily acquire and obtain services through an advanced online service marketplace. On this platform, ordering any service entails customer registration. Users of our website can add and remove items from their baskets without registering, but they need accounts in order to make purchases. Designing and implementing an online system that will benefit individuals and businesses is the goal of this project. Customers may rapidly search for urgent oil, gas, or maintenance needs using our system. The administrator can establish priority, add categories, and approve customer orders.

2.2 Related Works

Road safety and security have recently been Bangladesh's top priorities, particularly in light of the numerous incidents involving riders and the dearth of oil and gas. To assist those in need, numerous individuals and groups have come forward. Developing a rescue system involved using a wireless sensor network. A smartphone app was developed to help with burn injury emergency care. In this circumstance, even the government acted first. The Bangladesh Police Department, for example, provides both a phone service that can be reached by dialling 999[4] and an official app on the Google Play Store named "Bangladesh Police Helpline"[3]. Similar services can be found on a number of websites and apps available on the Google Play Store. ICE's emergency number, SoS Direct's emergency helpline, SOS Alert, Emergency call etc.

On the others very same operation has been operating on 'My Fuel Pump'. It started journey from 2021. By saving time and rescuing users from the hassle of the gas station,

the My Fuel Pump app does so without charging a fee. The on-demand fuel delivery app has a beneficial effect on the communities it serves by fostering better lives and better futures. Additionally, it has a strong commitment to preserving and enhancing the environment. To that end, it has established bold sustainability targets and is continually monitoring and enhancing its performance in order to meet those targets.

2.3 Comparative Studies

As we have emphasized when reviewing them, there are not many fuel/gas emergency services available in Bangladesh for having some limitations and problems with the system.

NO	Comparison index	Refilling Service (Our Application)	My Fuel Pump
01	Service Type	Emergency response and ordinary order process on anywhere delivery (On point service)	Ordinary order process on home/office address.
02	Application Type	Web Application	Mobile App Application
03	Products	Different type of Oil, LPG Gas, Car Washing and Service	LGP Gas and Diesel
04	Quantity	As per customer demand	At least 50L
05	Business Type	C2B	Large scale B2B
06	User Interface	Poor internet connection accessible on website	Download App and make sure proper internet connection for access

2.4 Scope of the Problem

The biggest problem with this type of service is providing security and payment. Providing services quickly in times of crisis or disaster is a significant problem as well. As part of routine program maintenance, the Database must be simple to update with the most recent data from the service provider. It is crucial to give the service provider security and payment at the client's home or place of business. But because the service provider registered their information, we can maintain track of their particular and at the very least ensure a certain level of security from the service provider.

2.5 Challenges

Emergency assistance is needed when someone is in a life-threatening situation. If we go for the greater difficulties, our journey is filled with many challenges. We could begin by considering how easily accessible the internet is. Our project is web-based. Without an internet connection, users cannot use the equipment or the system. It's difficult to tell when someone will find oneself in a dangerous situation. The main challenge is to design an application while taking all potential outcomes into account. Tasks can be finished by the program fast and efficiently. In a dangerous situation, every second counts since anything could happen to the sufferer. The project's development is complicated since developing web apps requires in-depth programming knowledge and an extendable markup language. They also demand web and database expertise. We can therefore conclude that a web application has to be created. One particular field of computer technology requires the knowledge of a developer. Developers face challenges as a result of the technology's rapid change.

CHAPTER 3
REQUIREMENT SPECIFICATION

3.1 Business Process Modeling

A business process model (BPM) is a tool that allows you to create a flowchart. It generates a model that depicts the proper data flow from beginning to end. BPM can be used to describe the project's capacity. Almost every engineering project has a business process model. A well-established business process model aids in increasing the speed of work before beginning the project implementation effort.

The project can be seen in a variety of ways by the user and developer with the aid of a business process model. In our project, places are the main entity. All of the pertinent data for various E-health services is categorized by the program. The software will show the user the services they requested after conducting a thorough search. Regardless, the user can independently search the application's several sections for the information they require.
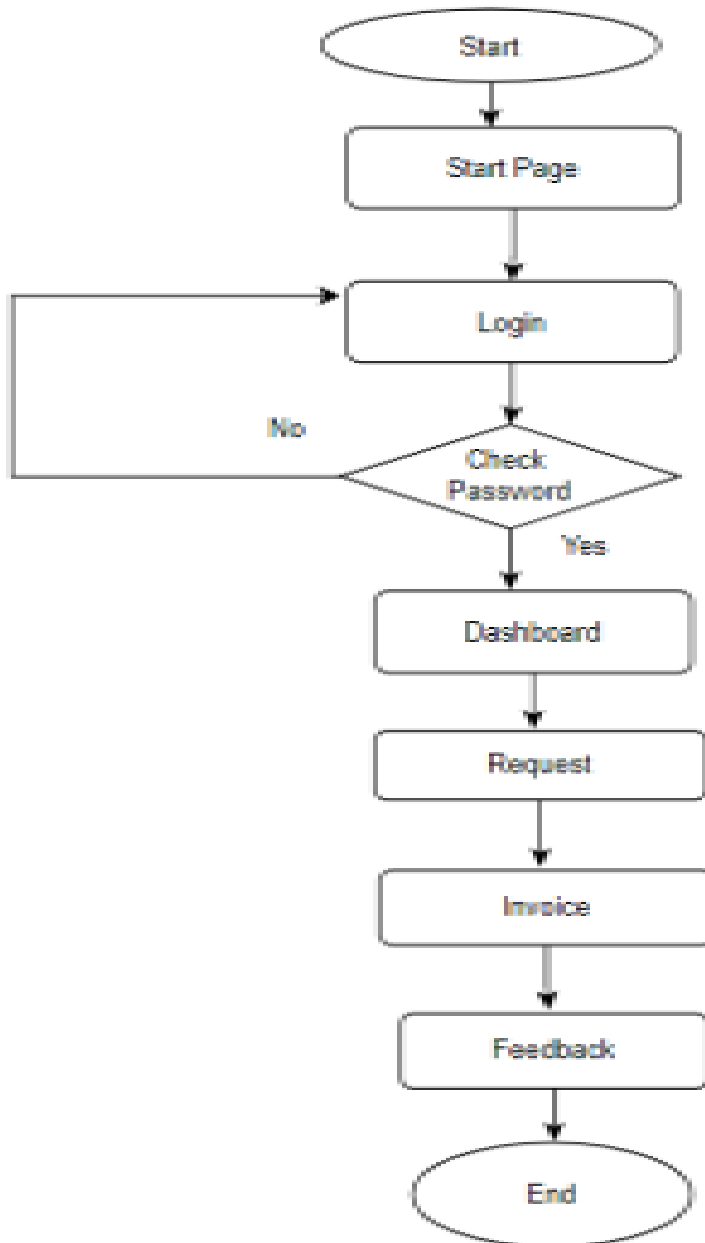
Application Flow Diagram

Figure 3.1.1: Flow Diagram of Business Process Model

3.2 Requirement Collection and Analysis

An essential component for programming a work in progress is a broad description of the planned justification and requirement. In this case, we look at our structure to determine how many things we need. Here is a simple illustration of the need for examination in the system. In order to reach a sizable consumer base, this task is provided without charge. Customers can also access their favorite websites using the web program. The three primary pillars of our structure are under-development car service, emergency requests for oil or gas, and emergency response to accidents.

The admin panel would have the following models:

- Create a new visit window.
- Ability to improve client emergency response as requested by the client.
- View crucial details about staff, LPG gas cylinder refills, and emergency reaction to traffic accidents, among other topics.

3.3 Use Case Modeling & Description

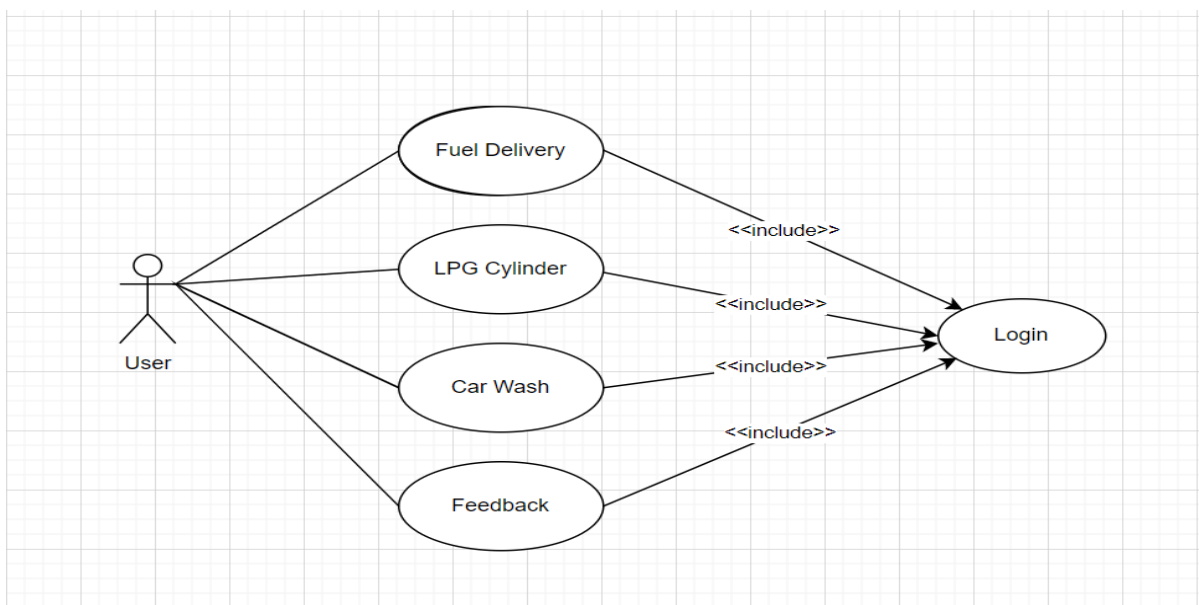Use case model of the user is given below in figure 3.3.1

Figure 3.3.1 Use Case Model for User

Use Case Description for User

An actor is a role that interacts with a system to accomplish a goal, and use cases in software and systems engineering are lists of actions or event steps that often define these interactions. The actor could be a person or some external system.

Use Case 01: Oil refiling

Primary Actor: User.

Precondition: Internet Connection

Secondary Actor: Null

Main Success Scenario: On the top, user can refill their vehicles on emergency condition on road.

Exception Scenario: No data found because of internet connection.

Use Case 02: LPG Gas

Primary Actor: User

Precondition: Internet Connection.

Secondary Actor: Null

Main Success Scenario: Client can use order section for LPG gas by giving home address.

Exception Scenario: No data found because of internet connection.

Use Case 03: Car Service

Primary Actor: User

Precondition: Internet Connection

Secondary Actor: Null

Main Success Scenario: User can book car service system.

Exception Scenario: No data found because of specific sessional flues is not in the database.

Use Case 04: Feedback

Primary Actor: User

Precondition: Internet Connection

Secondary Actor: Null

Main Success Scenario: User can give feedback toward service and system.

Exception Scenario: No data found because of specific sessional flues is not in the database.
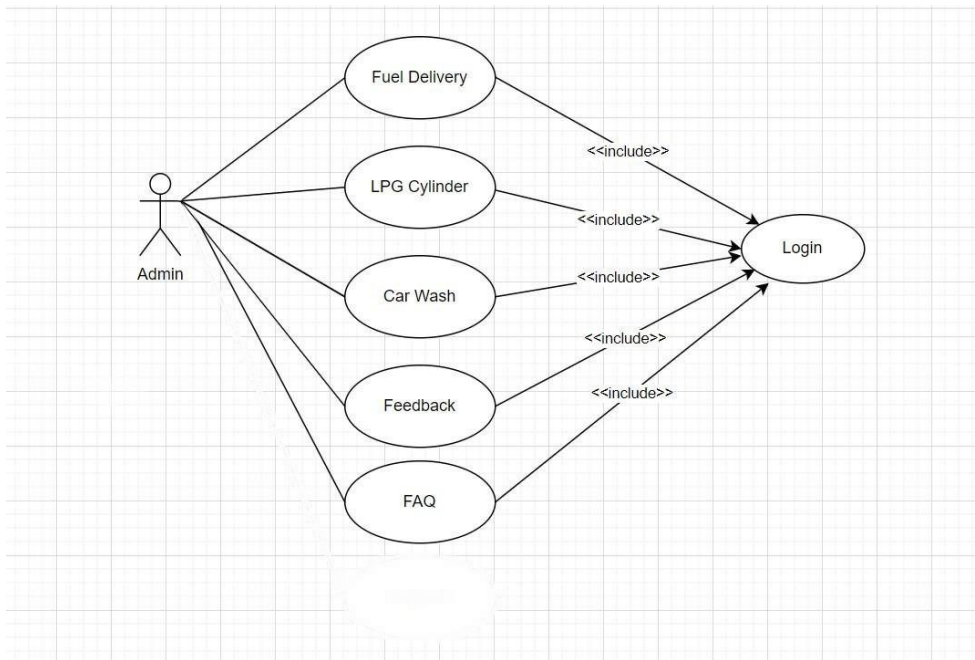
Figure 3.3.2 Use Case Model for Admin

Use Case 05: Admin- Add Oil Attributes

Primary Actor: Admin

Precondition: Internet Connection

Secondary Actor: Null

Main Success Scenario: Admin by clicking this, admin can add different type of oil, quantity and others details.

Exception Scenario: No data found because of internet connection.

Use Case 06: Admin- Add Gas Attributes

Primary Actor: Admin

Precondition: Internet Connection

Secondary Actor: Null

Main Success Scenario: Admin by clicking this, admin can add different type of LPG Gas company, quantity and others details.

Exception Scenario: No data found because of specific food is not in the database.

Use Case 07: Admin Global Settings

Primary Actor: Admin

Precondition: Internet Connection

Secondary Actor: Null

Main Success Scenario: Click the global settings button, admin can interaction with user request.

Exception Scenario: No data found because internet connection.

Use Case 08: Admin- Add Car Wash

Primary Actor: Admin

Precondition: Internet Connection

Secondary Actor: Null

Main Success Scenario: Click the global settings button, admin can interaction with user request.

Exception Scenario: No data found because of internet connection.

Use Case 09: Admin- FAQ and Feedback

Primary Actor: Admin

Precondition: Internet Connection

Secondary Actor: Null

Main Success Scenario: Click the global settings button, admin can interaction with user feedback and answer of relevant question.

Exception Scenario: No data found because of internet connection.

3.4 Logical Data Flow

A database's entity-relationship diagram shows the connections between the entity sets that are recorded within (ERD). An entity is a data component in this instance. ER diagrams, then, represent the logical organization of databases [8]. The database's entity sets are related in the entity-relationship diagram (ERD). A database's logical structure can be shown using an ER diagram. It specifies the data model and goes as deeply as possible into the database. The graphic shows each entity's relationships with each other. Here, the main key [9] and foreign key [10] as well as all of the characteristics of the entities are defined. The ER diagram for the application is displayed in the following image.
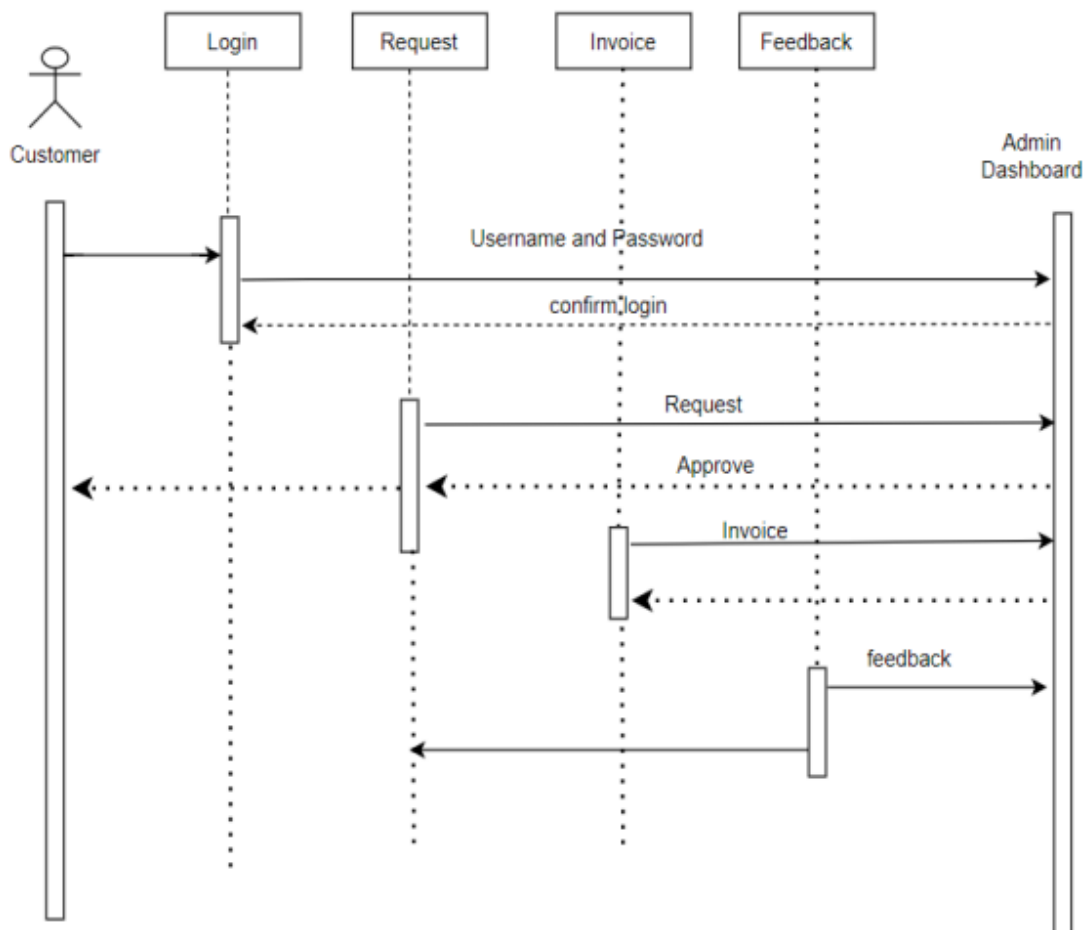

Figure 3.4.1 Logical Data Flow

3.5 Design Requirements

It is essential to design a system from the front end to the back end because these areas are responsible for maintaining the system functional and luring consumers to use it. Regarding Android, we have followed the guidelines below:

User Friendly: It is essential that the application's user interface be simple. Users should be guided through each function, and nothing should ever be confusing.

Simple to understand: In order to keep users engaged and comfortable, we used the most modern graphical user interface design tools and techniques. We also used clear images and information to convey important facts in an approachable way.

Efficiency: To make the online application operate more quickly and effectively while using fewer mobile data and battery power, we minimized internet connectivity.

CHAPTER 4
DESIGN SPECIFICATION

A design specification is a thorough document containing details about how a project was created and the standards developers must adhere to. Its use is required when a building or product needs to be specifically designed to suit a requirement.

A statement outlining the process by which a system design will be made known as a design specification. In the Design Specification section, we'll show off both the front-end and back-end designs for our mobile application, website, and admin panel. We will also discuss the various programs and tools we used for this project.

4.1 Front-End Design

In the beginning, the frond-end attempted to create an introductory layer. It demonstrated to the customer the benefits of working with our framework. For an online platform to be improved, the front end is the most crucial part. Also known as the front end, the consumer side zone is a zone. The intention is to advance the web from the front when users visit a website by making sure the content is clearly laid out and simple to browse. Jump to the road, then look up in the free online dictionary Wikipedia. Front-end web development, sometimes referred to as customer-side web development, is the process of building HTML, CSS, and JavaScript for a Web application so that an user can look at and interact with it directly.A programmer known as a back-end designer creates the computational logic, programming framework, and data set. Engineers create the elements and highlights that a customer can reach via a web browser.
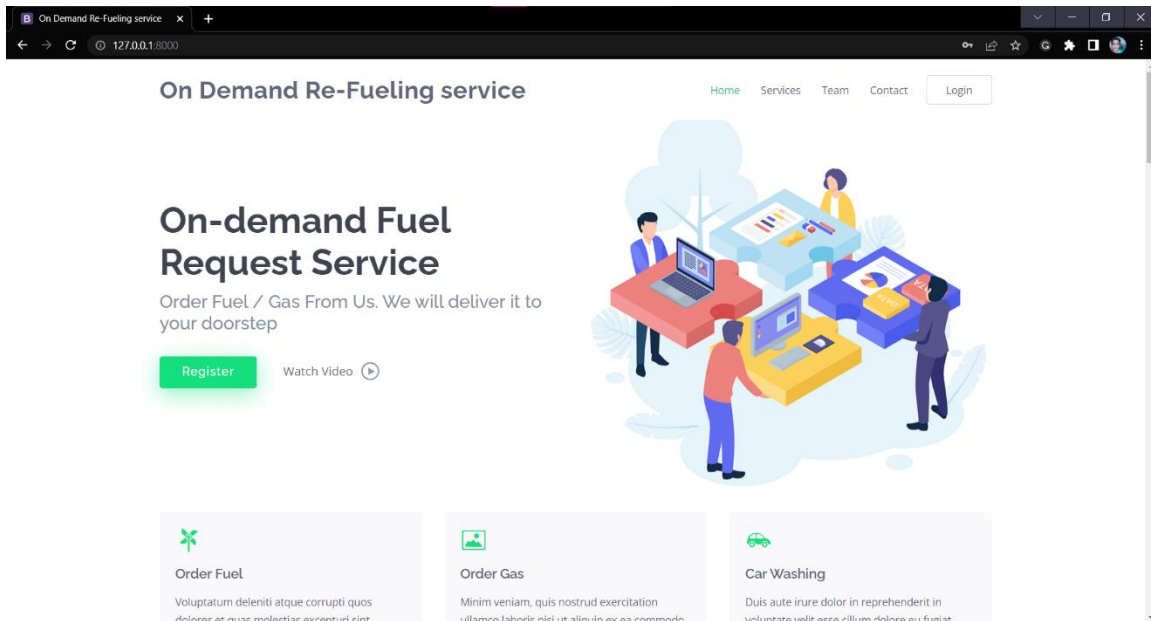
Figure 4.1.1: Front-End Design

Follow these steps to become a front-end web developer: -

- Acquire knowledge of JAVASCRIPT, JQUERY, BOOTSTRAP, HTML, and CSS. Additionally, we'll get better at it.

- Make something. To play around with (small) UI elements is one thing.

- Read.

- There are other aspects of front-end development outside website design.

- If we implement version control, our lives will be saved.

4.1.1 HTML

Every website starts with HTML. It is difficult to create a website without first learning HTML. If we only use HTML to design our site page, we would miss out on many interesting aspects. A page can be customized further using additional techniques like CSS. In order to improve the aesthetics and value of our web pages, we have started to use this language. We also incorporate JavaScript material to give our web pages more life.

4.1.2 CSS

"Cascading Style Sheet" is referred to as "Falling Style Sheet" in shorthand. The arrangement of the pages of the site is planned using Cascading Style Sheets. They can be

used to determine table widths, content styles, and other page-specific attributes that should be HTML-expressed. Separating a web page's presentation from its content (expressed in any markup language) is the main goal of CSS (created using Falling Templates). The advantages of CSS include improved content accessibility, enhanced adaptability, and control over many aspects of chronological display. Additionally, it helps the presentation become less multifaceted, which frees up time. Depending on your requirements, CSS lets you choose from a variety of style designs and rules and repeatedly output an HTML response that compares them.

4.1.3 BOOTSTRAP

The Twitter team created Bootstrap, an open-source JavaScript framework. To make designing user interface components simpler, it combines HTML, CSS, and JavaScript code. Additionally, updated with HTML5 and CSS3 compatibility is Bootstrap. Another name for it is the front-end framework. For building websites and online applications, there is a suite of tools called Bootstrap. With optional JavaScript extensions, it offers fonts, outlines, gets, courses, and other interface elements in HTML and CSS-based layout formats.

4.1.5 JAVASCRIPT

Programming language for prototyping is called JavaScript. This means that most JavaScript articles, like String, employ models. In a form of inquiry-driven programming called as composition based on a show PC program, techniques for cloning existing papers that act as models are employed to accomplish direct reuse (also known as inheritance). [5]

4.1.6 JQEURY

Question is a quick, nimble, and lightweight JavaScript library. It is multi-staged and suitable for a variety of undertakings. It mixes a number of straightforward operations that may be carried out with only one line of JavaScript code with procedures that can be executed on demand. Many of JavaScript's more intricate features, such DOM management

and AJAX calls, can be simplified for considerable cost reductions. Jquery is a lightweight and speedy JavaScript library. Jquery means "organize self-ruling" and stands for "make less achieve more."

The following are the key features of jquery:

- HTML control
- DOM control
- DOM element selection
- CSS control
- HTML occasion approaches
- Module extensibility
- AJAX
- HTML event method

4.2 Back-End Design

The back end, which functions similarly to client-side development, is the system that powers a website that a customer does not directly interact with or see, but it consistently fails to deliver. Adapt the software to the database's data and add fluid features. The configuration runs on both web servers and cloud servers and is a server-side jargon combination of a database and an item writer. Often taken into account when building a website, the front end is sometimes referred to as the client-side. A back-end engineer is a subset of a computer programmer who develops a transparent back-end and computational reasoning methods for a website, programming, or information system. The specialist develops bits and pieces that a client can access via a front-end program or structure in a roundabout method. The back is the structure that supports them, and they can be thought of as a device or organization for the transmission of media.
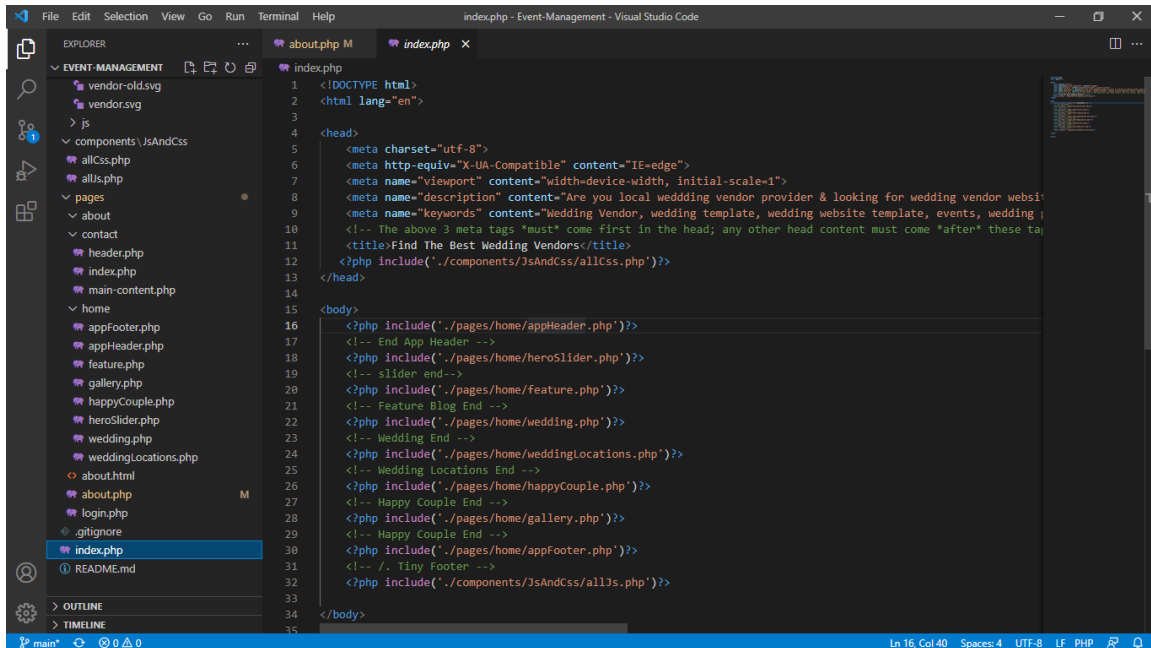
Figure 4.2.1: Back-End Design

Turn becoming a back-end web designer:

- Find out about XAMPP and PHP. We will also become more proficient at it.

- We ought to comprehend databases more fully.

Programmers use the phrases front end and back end to express the conflicts between display layers and the data layer, which might be a piece of hardware, a physical system, or software.

Although some presentation work is performed on the server, in a client-server show, the client is often seen as the front end and the server as the back end.

While programming, there may be a number of levels between the hardware and the end user.

Each has a back end and a front end that may be looked at separately. That illustrates how the fundamental element is being disassembled by offering a user-friendly interface, while the back usually takes care of business logic and data storage.

They can be thought of as a tool or organization for the transmission of media, whereas the back is the framework that holds this organization together.

- To become a back-end web developer, learn PHP and XAMPP.
- We need to understand database administration better.

4.2.1 PHP

PHP is short for "PHP: Hypertext Preprocessor," as the name suggests. The open-source scripting language PHP is very popular. System restrictions like creating, opening, reading, organizing, and closing records on a framework are all things PHP is capable of. PHP is able to manage structures, including gathering data from records and enhancing reports with additional information. Data encoding is a capability of it.

4.2.2 XAMPP

The Apache HTTP Server and Nginx Server, the MySQL database, and PHP and Perl interpreters make up the majority of the free and open-source, cross-organization XAMPP web server stack developed by Apache Companions.

4.3 Interaction Design and UX

Designing interactive digital goods, environments, systems, and services is known as interaction design, or IxD. Even if the digital portion of this statement is accurate, interaction design is also helpful when developing physical (non-digital) items since it considers how a user might interact with it.

The success of the project in any application depends on maintaining excellent and simple communication between the system and the user. The "On demand Re-fueling Service" application in particular needs frequent data updates from customers in order to provide better service.

Designing interactive digital goods, environments, systems, and services is known as interaction design, or IxD. Even if the digital portion of this statement is accurate, interaction design is also helpful when developing physical (non-digital) items since it considers how a user might interact with it.

The success of the project in any application depends on maintaining excellent and simple communication between the system and the user. The "On demand Re-fueling Service" application in particular needs frequent data updates from customers in order to provide better service.

4.3.1 Interaction Design

Interaction design is essential to the creation of a successful user experience, or UX. Interacting design is the process by which we interact with our brand, customers, or users. In this part, we guarantee the benefits to our users.

4.3.1.1 Usability: The UX system places more emphasis on usability, which is the ease with which we can navigate from one page to another while still being entertaining and accessible. The navigation bar, the location of the logo or icon, the familiarity of the website, maintaining consistency, and fixing any problems or flaws are all things we must take into account at this stage.

4.3.1.2 Accessibility: Accessibility affects how quickly our site appears when searched on Google or another search engine. In order to rank higher than other review websites when a user searches for our website, we must concentrate on SEO (Search Engine Optimization).

4.4 Implementation Requirements

The framework does not include a client name or secret phrase for client login. Customers on this website can use this framework for no cost at all. Using their name and email address, customers can also recommend us. Fill out the framework and send us the information we need to make a proposal. Participation setup is a strategy for distributing visual representations of an online organization that will be used for early proof-of-concept testing and later as evaluations for producers and originators. A correspondence creator distributes frameworks, models, and mockups. To build this foundation for collaboration, a correspondence organizer can obviously employ client feedback, field research, and organizational setup. A portion of the time, the experience maker and correspondence

organizer have different roles; other times, they do. The association organizer frequently considers the all-inclusive plan, but occasionally neglects to do so.

Usage is the confirmation of a particular assurance or figure as a program, component, or other PC structure through PC programming and sending in programming construction. There may be numerous executions for a certain specification or standard. Web applications, for instance, implement nuances specified by the Internet Consortium and programmatically augment existing features. The instruments make use of programming tongues. A noteworthy case is found in. Because of this, it is difficult to write ordered code when a powerful class performs an interface. It links the employed procedures, and it is the strong class of the interface.

CHAPTER 5

IMPLEMENTATION AND TESTING

5.1 Implementation of Front-end Design

Create HTML, CSS, and JavaScript for a website using front-end web development, also known as client-side development. webpage or Web application so that a user can view and interact with it directly. The challenge with front-end development is that the techniques and tools for creating a website's user interface are always changing. Therefore, the designer needs to be aware of how the industry is evolving at all times. When users visit a website, the content should be laid down in a way that is both intuitive and pertinent. This is the aim of website design. The fact that clients today utilize a wide range of devices with various screen sizes and functions makes this more challenging, thus the designer had to take these things into account when creating the website. They need to make sure that their website displays properly in multiple projects (cross-program), different working structures (cross-stage), and particular devices (cross-device), all of which require significant planning on the part of the creator.

5.2 Implementation of Database

The implementation of the usage plan entails setting up the DBMS on the proper hardware, redesigning the database to work optimally with that hardware and programming stage, and then creating and loading the data into the database. As well as the tables, create the database. The weight of data should be avoided. Following are the procedures for using the database: The author is Adrienne Watt. The division of the development process into a number of phases, or steps, each of which focuses on a distinct part of the improvement, is a key component of programming development—waterfall in the SDLC.

- Life Cycle of a Database
- Gathering requirements
- Research and analysis.
- Logical Planning.

- Implementation.
- Putting the plan into action

5.3 Implementation of Interactions

In feature-arranged composition PC programs, the implementation of the relationship between features might be challenging. If the interfacing features are optional, the affiliation code cannot be present in either of the modules for those features.

One limited method of implementation is to separate such association into a backup module. It does not scale as the number of subordinates increases, in any case. This study shows how to efficiently complete subordinates for a variety of social affair characteristics. A social event of features is executed through the inheritance of feature module inheritance. Participants in the meeting use a super component module as their common interface. For social circumstances along these lines, it allows for the presentation of non-select supplementary material. This study also demonstrates how to use Highlight Gluon, a somewhat organized programming language that makes this method mouth-working. With a feature, a composition

An example of programming that has degraded is in PC programs, where the source code for each component has changed. It started off as a way to execute adjacent classes, but it has since developed into a way to carry out related programming chores; this group of duties is known as item advertising. By just choosing the attributes for that essential component, you can construct designs.

5.4 Testing Implementation

The method to put an action for the planned course of action is known as use. The course of action should have been completed, and our objectives should be apparent before we recognize it. Each and every one of the activities described in the course of action was put to the test. Test content can also be used to convey instructions to a test execution device. The content for computerization is written in a programming an understanding of the device's language. Tests that must be completed manually rather than through the use of a

test execution mechanical assembly are referred to as manual test content. The test execution plan, which functions something like a superscript, is then surrounded by the test techniques, or test content, and indicates which methodology needs to be used first. Another technique to set up the tests so that the best testing can be completed in the time provided is to create a test system.

5.4.1 Testing of the Main System

Being the landing page for the deployment process, an effort was made to establish a network connection to the database. The incorrect database linking was promptly corrected, and validation was carried out to make sure that enough data was retrieved and shown error-free.

5.4.2 Testing of databases

Database testing was irritated by network and capability tests. The test started with the plan organized, ensuring that the correct information representation was made.

5.4.3 Database Server and Administration Tools

In order to store and retrieve data for the system's requirements, the structure uses a database server. The database association may use the association tools to strengthen or make significant improvements to the site's database. We want to cut the structure's cost as one of our goals. So, for our database requirements, we go with the XAMPP server. It was chosen because it is a well-known and well-understood open source database system that is provided for free and is utilized by many well-known association instruments.

5.4.4 Web Server

A web page can be hosted on the web server by any PC with a local or Internet connection. This is accomplished by connecting the PC's IP address to a certain envelope on the local computer. Users are directed to the specified root envelope shown in the web server's course of action report when they attempt to reach the supporting PC's IP address using HTTP from another PC. For this system's ultimate objective, or, at the end of the day, warm, we employed the typical free source web server.

5.4.5 PHP server

Software on the host PC can run PHP code and view PHP site pages thanks to the PHP server. Using PHP 5.6.0, the organization structure for the course of action was constructed. This PHP is really amazing when combined with the warm web server adjustment that was utilized. Available is the PHP server.

5.4.6 Apache Server

A free and open-source web server that leverages the internet to provide web content is the Apache HTTP Server. Since its debut, it has been known as Apache, and it quickly rose to the top of the HTTP client list online. Although it's frequently believed that Apache's name derives from its development background and method of advancement through patches and modules, this was disproved in 2000. The term's origin was determined to be the Native American tribe's adoration of it due to its resilience and toughness. Let's construct a web application and discuss its typical architecture before diving deep into Apache.

5.4.7 Nginx Server

Open-source reverse proxy, caching, load balancing, and video streaming are all features of NGINX. It was designed as a web server at first to deliver the highest performance and stability. NGINX may function as an HTTP server, a reverse proxy and load balancer for HTTP, TCP, and UDP servers, as well as an email proxy server (IMAP, POP3, and SMTP). An open-source web server called NGINX has features including a reverse proxy, caching, load balancing, video streaming, and more. It was designed as a web server at first to provide the highest performance and stability. NGINX may function as an HTTP server, a reverse proxy, a load balancer, and an email proxy server (IMAP, POP3, and SMTP)., and SMTP) and a reverse proxy and load balancer for HTTP, TCP, and UDP servers.

5.5 Test Results and Reports

The Bangladeshi people would benefit from this project by receiving the most adaptable and straightforward platform in the emergency field to emergency services more quickly.

As a result, the people of Bangladesh may simply address problem, locate the nearby oil/gas service, identify the nearby service center, and get emergency response from anywhere in Bangladesh thanks to the project's entire success. In order for peoples and rider to create their own accounts here, a login option has been created. However, a user can see all the records about the preceding provider that taken from this website. The maximum interesting aspect is the people of Bangladesh can get all the facilities with the aid of sitting there domestic. They don't need to move and run to various places to see whether there are available oil or gas provider, whether the response is free or full etc. People can get all the opportunities from anywhere in Bangladesh from one address to another address.

- Testing for browsing the website
- Testing for Dashboard/ Home screen scroll.
- Testing for Oil order process.
- Testing for LPG Gas order process.
- Testing for Car Washing process
- Testing for the Admin Dashboard.
- Testing for the login process for all participants.
- Testing for the Global Settings.
- Testing for Admin Panel process

5.5.1 Home page of this system

This is the home page for our E-healthcare Services, as we see in Figure 5.1. The user may easily access and choose his or her needed health services.
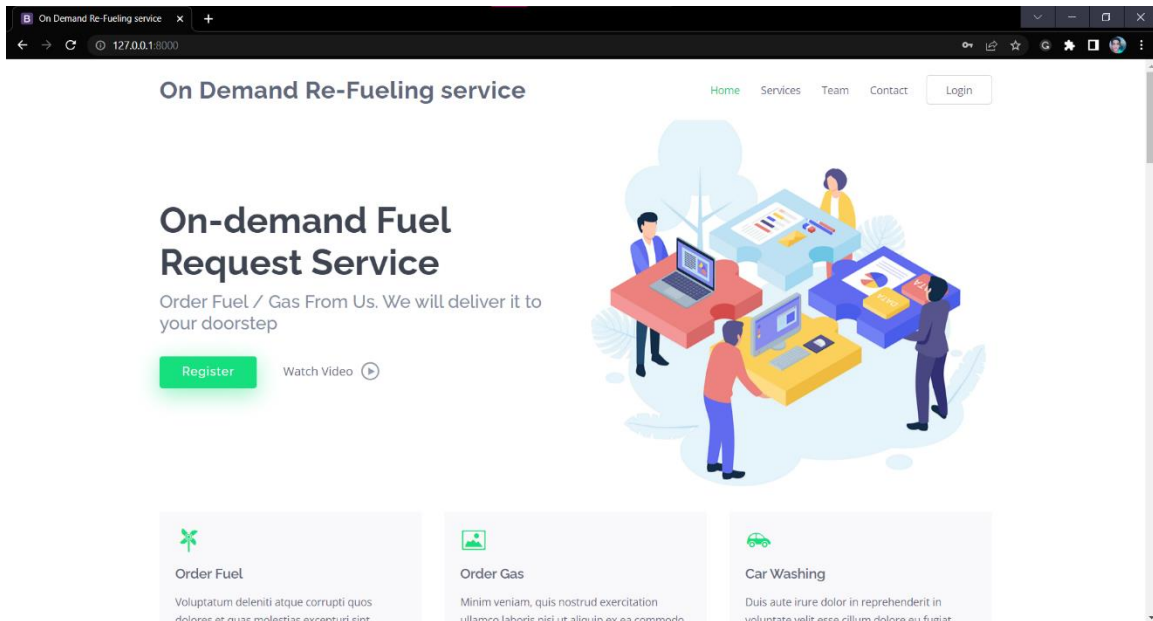
Figure 5.5.1: Home page of this system

5.5.2 Login for all participant

Figure 5.2.2 shows how a user can easily log in using their user id and password.
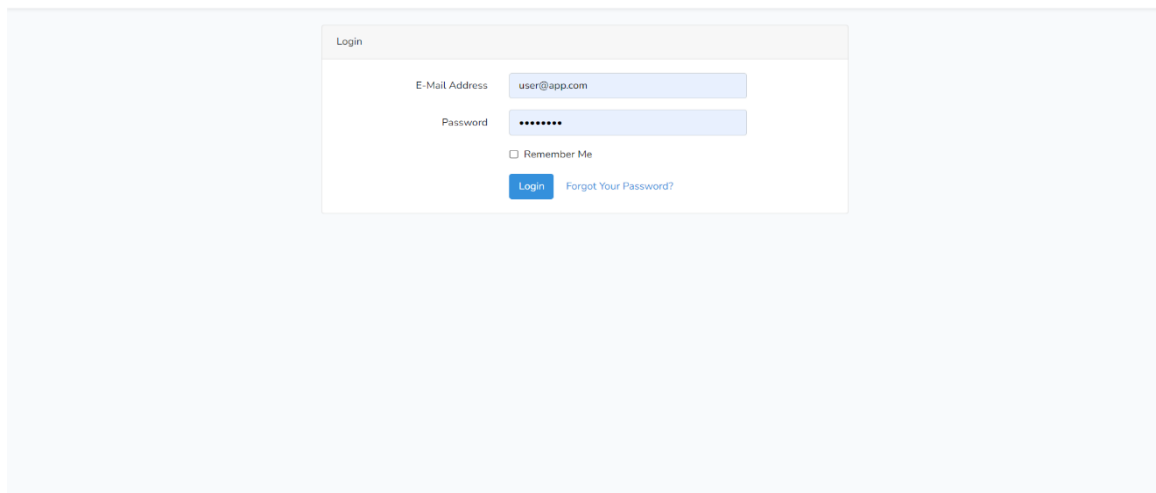
Figure 5.5.2: Login page of participant

5.5.3   User Dashboard

Figure 5.3 shows how a user can quickly locate User Dashboard
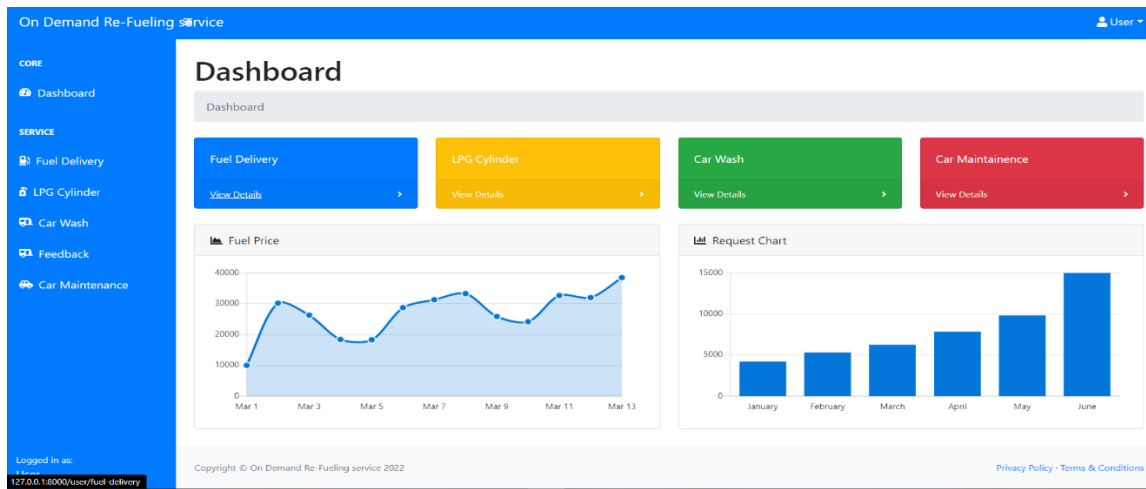
Figure 5.5.3 User Dashboard

5.5.4   User Dashboard - Fuel Delivery Request

Figure 5.4 shows that a user may quickly look up User Dashboard - Fuel Delivery Request
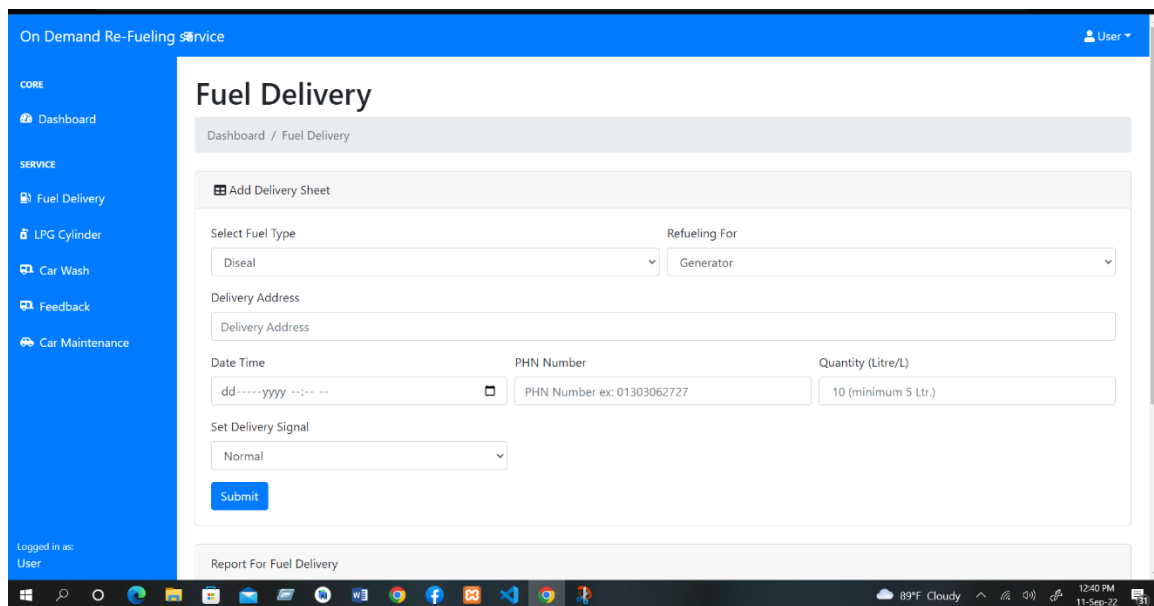
Figure 5.5.4 User Dashboard - Fuel Delivery Request

5.5.5   User Dashboard - LPG Gas Delivery Request

Figure 5.5.5 shows that a user may quickly look up User Dashboard - LPG Gas Delivery Request.
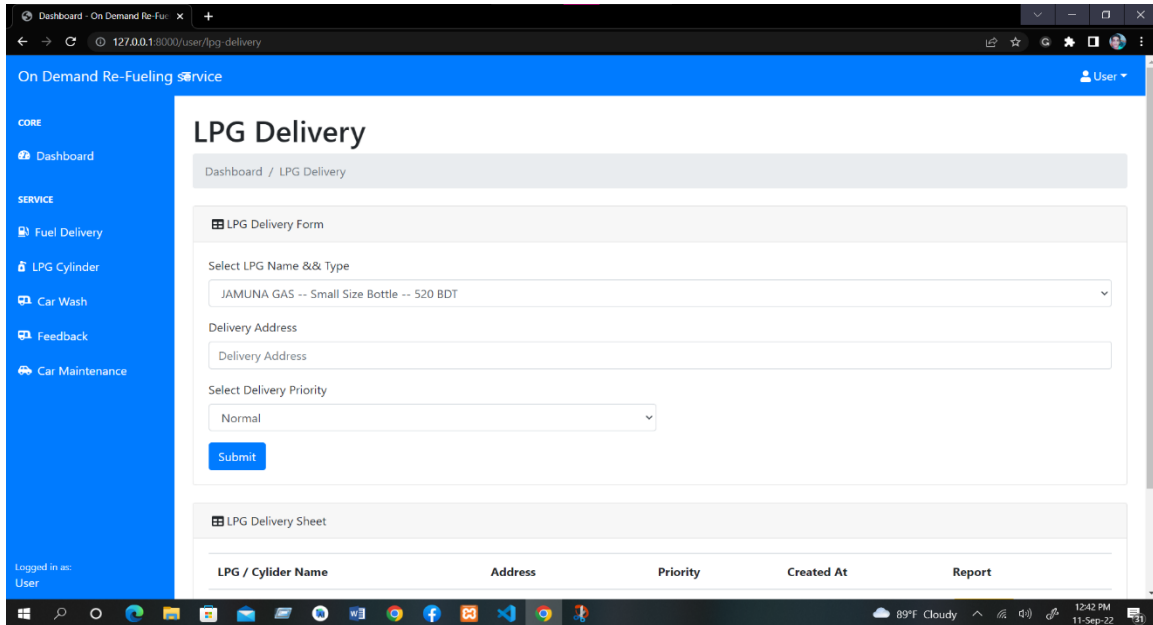
Figure 5.5.5 User Dashboard - LPG Gas Delivery Request

5.5.6   Admin Dashboard

Fig 5.5.6 will allow us all information about admin dashboard.
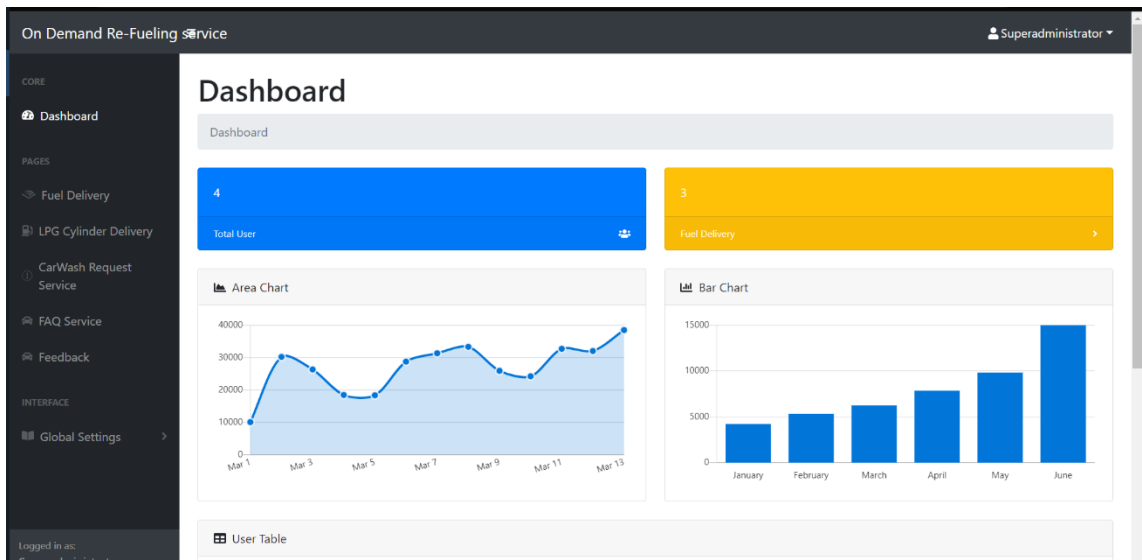
Figure 5.5.6 Admin Dashboard

5.5.7 Admin-Dashboard - Fuel Delivery Details

Fig 5.5.7 will show all kinds of Admin-Dashboard - Fuel Delivery Details

Figure 5.5.7 Admin-Dashboard - Fuel Delivery Details

5.5.8 Admin-Dashboard - Fuel Delivery

Figure 5.5.8 depicts how manage Admin-Dashboard - Fuel Delivery

Figure 5.5.8 Admin-Dashboard - Fuel Delivery

5.5.9 Admin-Dashboard - Fuel Type Create Page

Figure 5.5.9.1 shows that an admin can see all of its activities on Admin Dashboard - Fuel Type Create Page
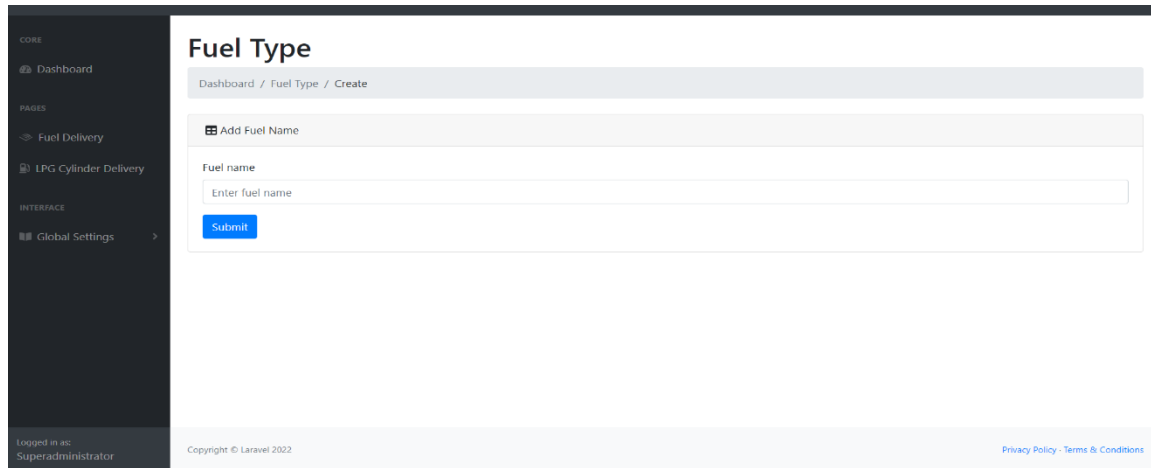
Figure 5.5.9 Admin-Dashboard - Fuel Type Create Page

5.5.10 Admin-Dashboard - Fuel Type Details Page

Figure 5.5.10 shows that an admin can manage all kind of user booking request states system.
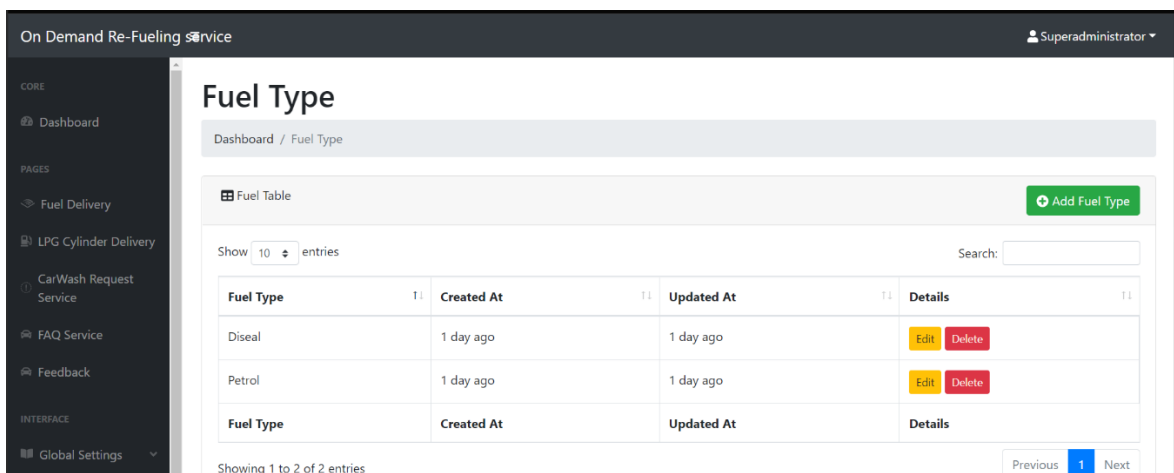
Figure 5.5.10 Admin-Dashboard - Fuel Type Details Page

5.5.11 Admin-Dashboard - LPG Cylinder CRUD

Figure 5.5.11 shows that an admin can manage all kind of Dashboard - LPG Cylinder CRUD
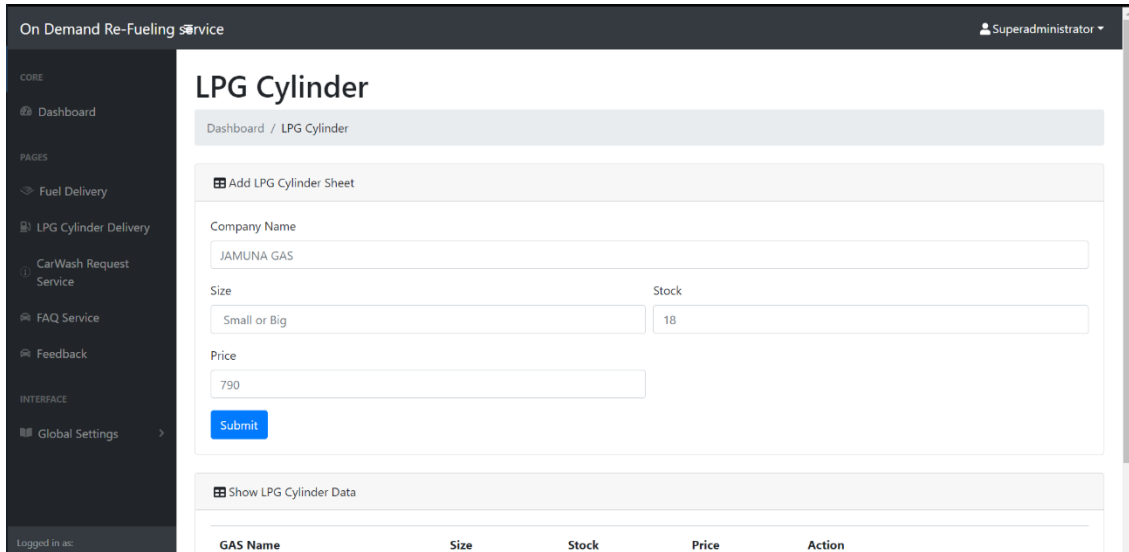
Figure 5.5.11 Admin-Dashboard - LPG Cylinder CRUD

5.5.12 Admin-Dashboard - Refueling for Table Page

Figure 5.5.12 shows that an admin can manage Refueling for Table Page
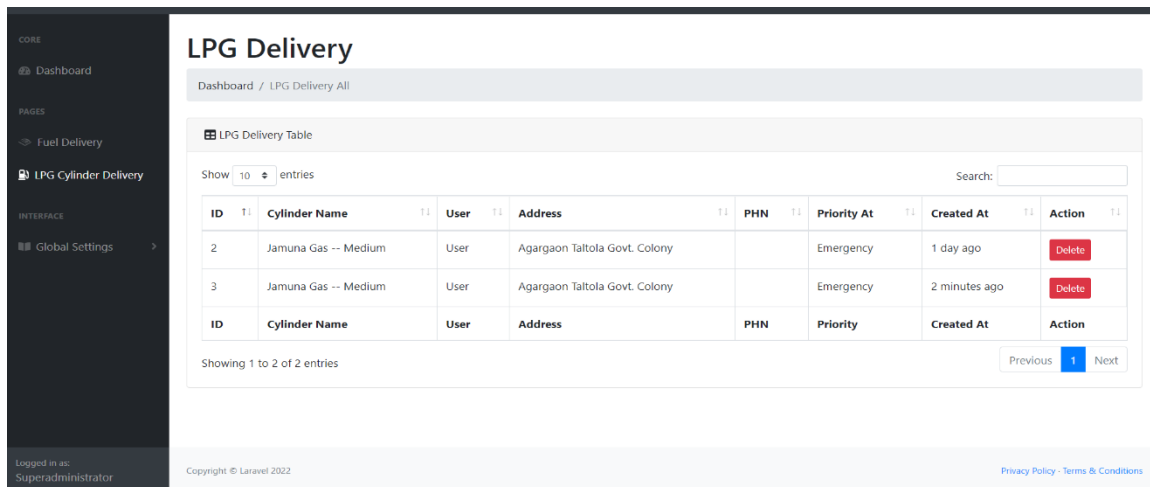
Figure 5.5.12 Admin-Dashboard - Refueling for Table Page

5.5.13 Admin-Dashboard - Refueling Reason

Figure 5.5.13 shows that an admin can manage Refueling Reason.
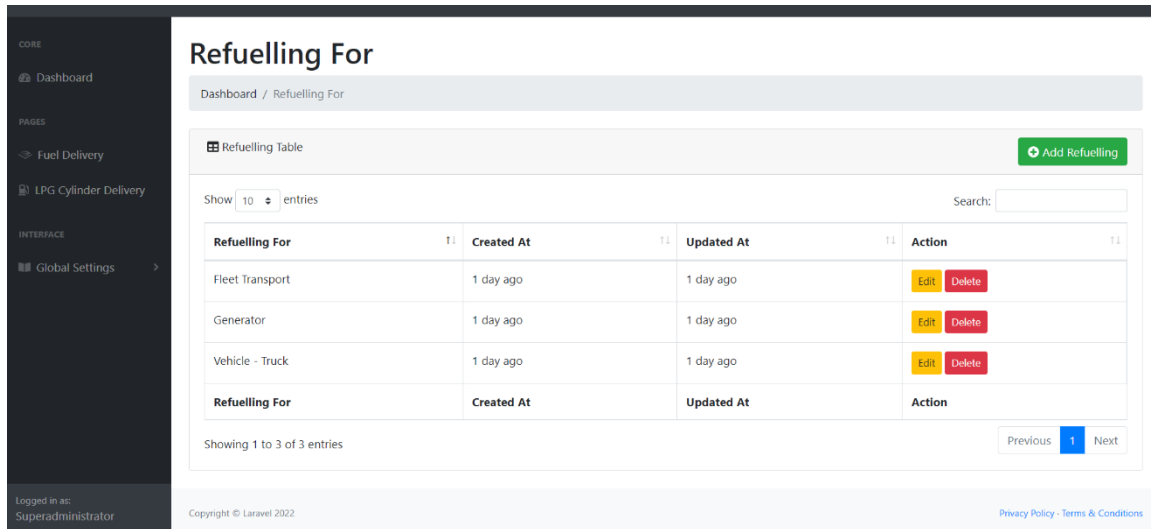
Figure 5.5.13 Admin-Dashboard - Refueling Reason

5.5.14 Admin-Dashboard Priority Setup

Figure 5.5.14 shows that an admin can Priority Setup
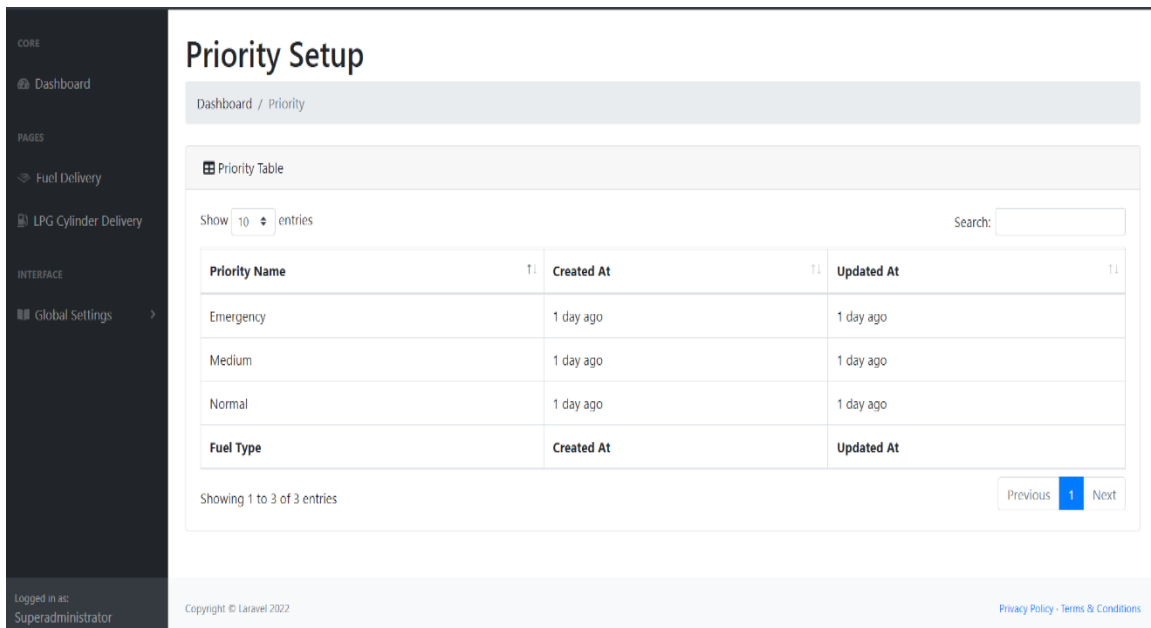
Figure 5.5.14 Admin-Dashboard Priority Setup

5.5.15 Admin-Car Wash

Figure 5.5.13 shows that an admin can manage car wash activities.
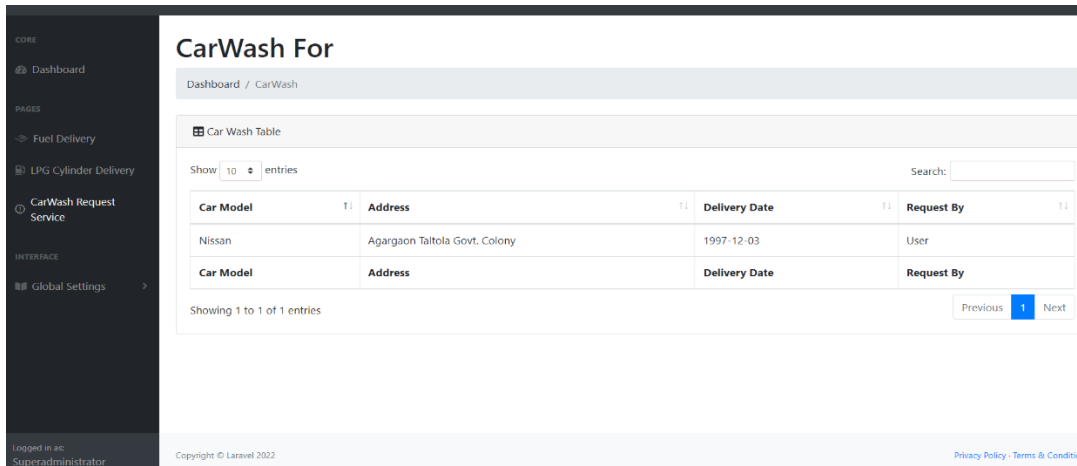
Figure 5.5.15 Admin-Car Wash

5.5.16 Car Wash - User Dashboard

Figure 5.5.14 shows that a user can request his order for car wash schedule wise.
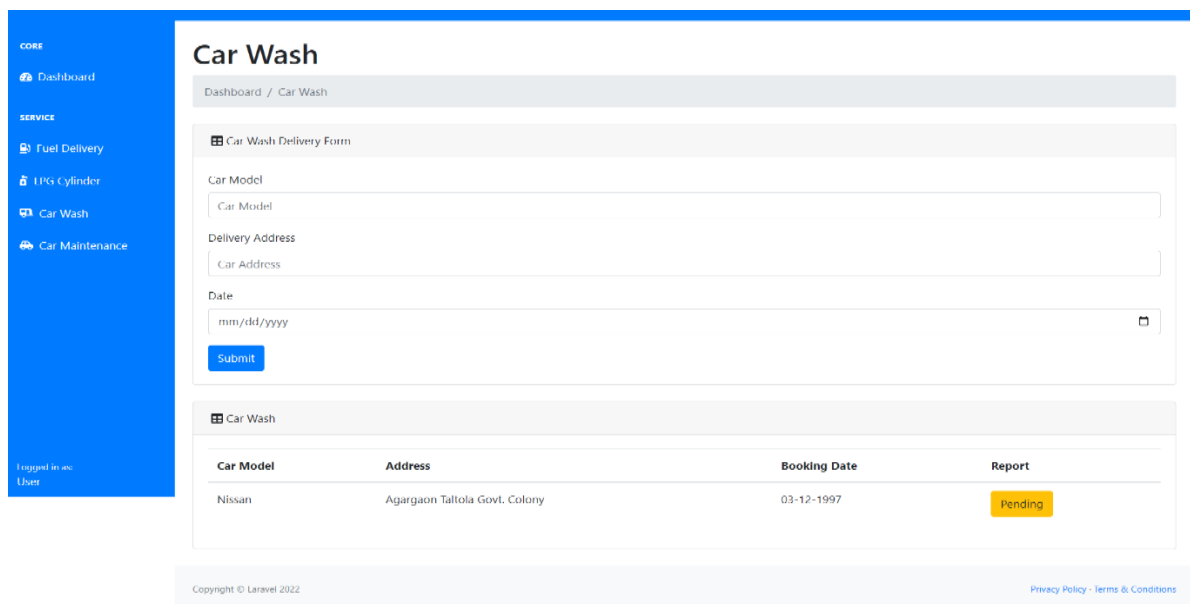
Figure 5.5.16 Car Wash - User Dashboard

5.5.17 All Setup with Footer

Figure 5.5.15 depicts the footer as the final component of the system.
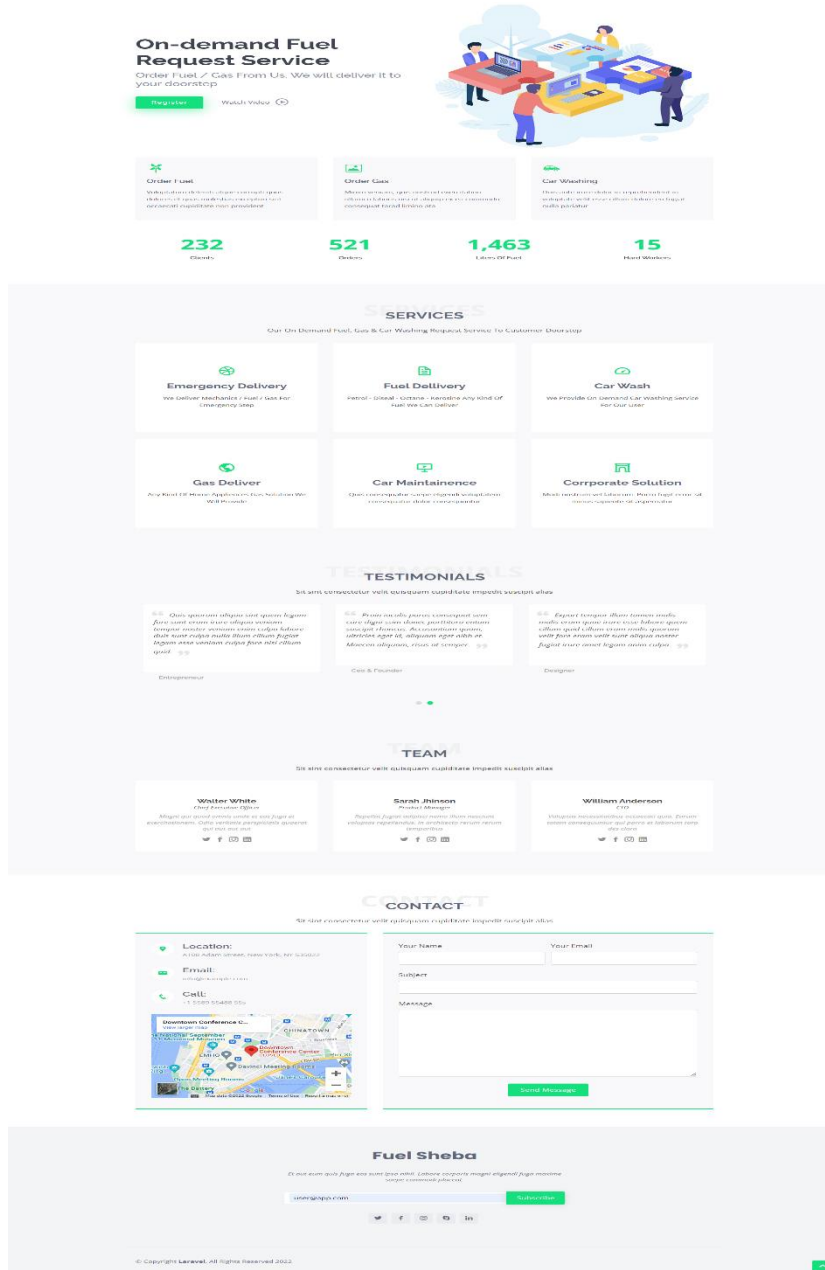
Figure 5.5.17 All Setup with Footer

5.5.18 Feedback Admin

Figure 5.5.18 shows that an admin can manage feedback actives.

Figure 5.5.18 Admin-Feedback

5.5.19 Feedback User

Figure 5.5.19 shows that a user can give his/her feedbacks according to our system for improving.

Figure 5.5.19 Feedback- User Dashboard

5.5.20 FAQ

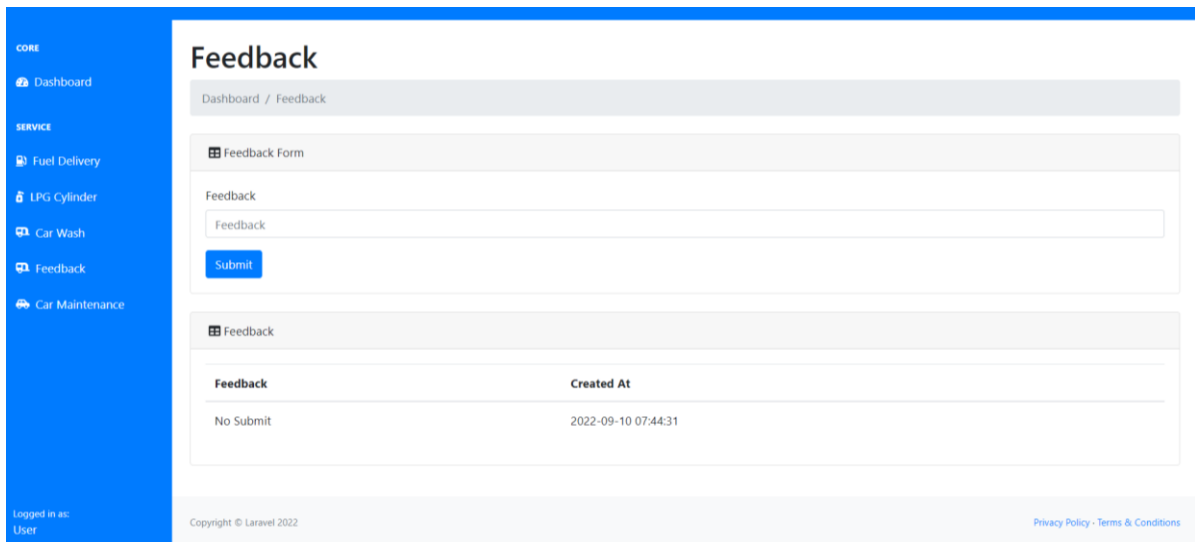Figure 5.5.19 shows that a user and Admin can give his/her question answer according to needs and curiosity.

Figure 5.5.20 FAQ
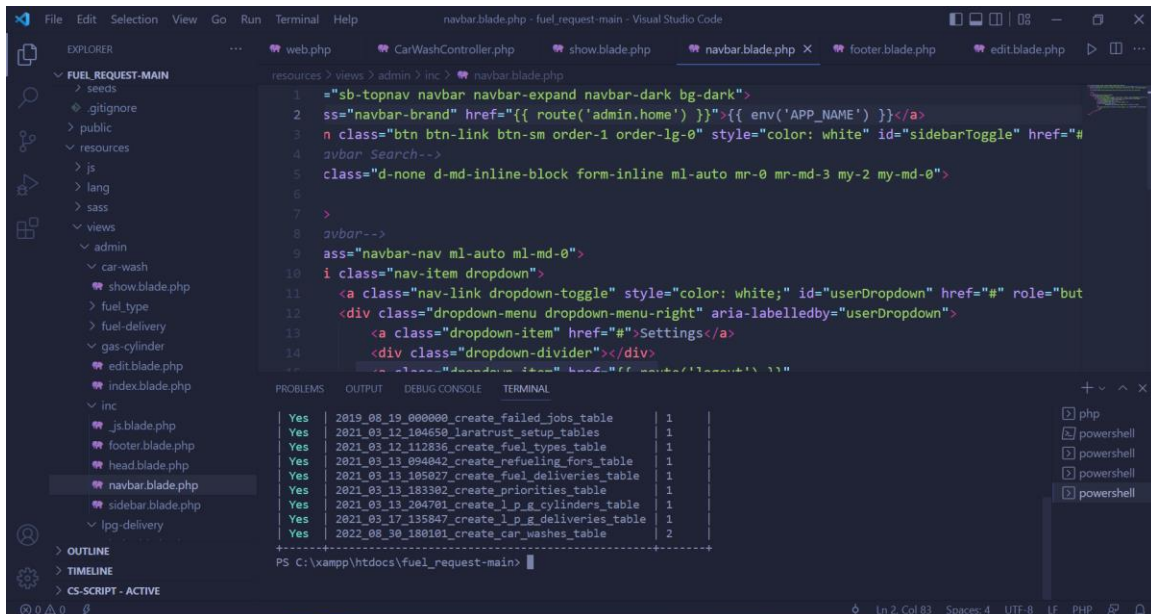
Figure: PHP code implementation for the project.

Figure 5.5.21 Code implementation for the project

Figure: localhost-127-0-0-1-fuel-phpMyAdmin-5-0-4 for our system

Figure 5.5.22: Localhost for our system

CHAPTER 6
CONCLUSION & FUTURE SCOPE

6.1 Discussion and conclusion

The application is prepared for usage because we have been working on the project for some time. The skill of the All-Powerful God allowed for the accomplishment of the task. Everyone can now download and install it to take use of all the wonderful features. Using our program, we can address the issue that existed in the past. By building or bringing different mechanics or service facilities into one spot, we intend to encourage people to exchange their knowledge and discover the closest repair facility.

6.2 Scope for Future Developments

Users can communicate issues and engage with information using our application's user-to-user connections. As we build this auto service management system, we will understand the value of the customer's car and the necessity of mechanics. The challenge is figuring out how much, what values, and how creatively we use our skills to provide value to this system.

- Future project scope is described as follows:
- Various services will be provided to the client.
- The administrator may disapprove phony accounts.
- UI enhancements and increased functionality
- A version for iOS and Android should be made, and digital payments should be added.

REFERENCES

[1] Albert Ko and Henry Y. K. Lau, "Robot Assisted Emergency Search and Rescue System with a Wireless Sensor Network," International Journal of Advanced Science and Technology, Vol. 3, February, 2009

[2] Wallis LA, Fleming J, Hasselberg M, Laflamme L, Lundin J (2016) A Smartphone App and Cloud-Based Consultation System for Burn Injury Emergency Care. PLoS ONE 11(2): e0147253. https://doi.org/10.1371/journal.pone.0147253

[3] Bangladesh Police Helpline application, available at https://play.google.com/store/apps/details?id =com.ntitas.bdPoliceHelpLine, last accessed on 20-12-2020 at 02:00 pm.

[4] 999 : National Emergency Service, available at https://www.999.gov.bd/about, last accessed on 20-12-2020 at 02:00 pm.

[5] Google Firebase: Realtime Database, available at https://firebase.google.com/products/ realtimedatabase, last accessed on 20-12-2020 at 03:00 pm.

[6] NoSQL : Database explained, available at https://firebase.google.com/products/ realtime-database, last accessed on 20-12-2020 at 03:20 pm

[7] https://online.visual-paradigm.com/

[8] http://guides.lib.berkeley.edu/how-to-write-good-documentation

[9]https://www.huffpost.com/entry/3-ways-to-createadocume_b_5950804?ec_carp=1214238055060485286

[10] Berndt, A., 2009, "Investigating Service Quality Dimensions in South African Motor Vehicle

Servicing," African Journal of Marketing Management, April, vol. 1(1), pp. 001-009

[11] The Influence of Customer-Perceived Service Quality on Customers' Behavioral Intentions.

http://www.iimcal.ac.in/programs/ fpm/ThesisAbstracts/koushiki2005.pdf.

Final Defense Report Final

21%	19%	3%	15%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	dspace.daffodilvarsity.edu.bd:8080 Internet Source	14%
2	Submitted to Daffodil International University Student Paper	4%
3	www.coursehero.com Internet Source	1%
4	Submitted to University of Greenwich Student Paper	1%
5	Submitted to ABC Horizon Academy Student Paper	<1%
6	Submitted to University of Aberdeen Student Paper	<1%
7	squareboat.com Internet Source	<1%
8	www.atulhost.com Internet Source	<1%
9	Petros Tanakas, Aristidis Ilias, Nineta Polemi. "A Novel System for Detecting and Preventing SQL Injection and Cross-Site-Script", 2021	<1%