Design and Implementation of Digital Web Service Software “Shongjog”

by

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Supervised by
Salma Tabashum

Submitted in partial fulfillment of the requirements for the degree of
Bachelor of Science in Computer Science and Engineering



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SONARGAON UNIVERSITY (SU)

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APPROVAL

The project titled **"Design and Implementation of Digital Web Service Software - Shongjog"** submitted by **Md Rabiul Islam** (CSE2102023002), **Monoara Moni** (CSE2102023088), **Md. Shamsul Husain** (CSE2102023005) and **Sumya Akter** (CSE2102023067) to the Department of Computer Science and Engineering, Sonargaon University (SU), have been accepted as satisfactory for the partial fulfillment of the requirements for the degree of Bachelor of Science in Computer Science and Engineering and approved as to its style and contents.

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DECLARATION

We hereby declare that the work presented in this report is the outcome of our investigation under the supervision of **Salma Tabashum**, Lecturer & Asst. Coordinator, Sonargaon University, Dhaka, Bangladesh. We reaffirm that no part of this Project has been or is being submitted elsewhere for any degree or diploma award.

Countersigned

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ABSTRACT

This project presents the development of a web-based platform that connects users with Service providers directly. By providing users with easy access to service provider contact information, the website allows for seamless communication and immediate service requests. The platform aims to improve the efficiency of service delivery by removing intermediaries and enabling direct interaction between users and skilled professionals.

Service Providers are listed in a searchable database, categorized by their areas of expertise, location, and availability, ensuring users can quickly find and reach the right professional. This approach not only benefits users by simplifying the service acquisition process but also helps Service providers gain visibility and expand their customer base.

The project focuses on the design, functionality, and usability of the platform, ensuring that it meets both user needs and technical requirements. It highlights the potential to transform the service industry by providing a straightforward, user-friendly interface for accessing professional services.

ACKNOWLEDGMENT

At the very beginning, we would like to express our deepest gratitude to the Almighty Allah for giving us the ability and the strength to finish the task successfully within the scheduled time.

We would then like to thank our supervisor, **Salma Tabashum,** Lecturer & Asst. Coordinator for introducing us to the amazingly interesting world of Digital Platforms & Service Providers. She is the person who taught us how to perform research work efficiently. Without her and her continuous supervision, guidance, and valuable advice, it would have been impossible for us to come to this point and have some output from the thesis. We are especially grateful to Ma'am for allowing us greater freedom in choosing the problems to work on, and for his encouragement at times of disappointment.

We would like to express our gratitude to all our teachers. Their motivation and encouragement in addition to the education they provided meant a lot to us.

Last but not least, we would like to thank our family, our parents, for their encouragement, and endless love and for supporting us spiritually throughout our lives.

LIST OF ABBREVIATIONS

ACID	Atomicity Consistency Isolation Durability
CSS	Cascading Style Sheets
FAQ	Frequently Asked Questions
GAS	Gastrointestinal Associated Syndrome
HTML	Hyper Text Markup Language.
OLX	Online Exchange
Phone No	Phone Number
TB	Terabyte
UX	User Experience

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Our project focuses on simplifying the connection between users and skilled service providers. This website serves as a bridge, allowing users to directly contact service providers by accessing their phone numbers from the platform. By providing a streamlined approach, users can quickly and easily reach out to professionals for various services, enhancing convenience and efficiency. The primary goal of this project is to empower users to find reliable solutions for their needs while giving Service providers a platform to showcase their expertise and grow their client base. [2].

1.2 Objectives

The primary objective of this project is to establish a user-friendly platform that directly connects users with skilled Service providers. By providing access to service provider contact information, the platform aims to:

- Simplify the process of finding and contacting reliable service providers for various services.
- Enhance convenience for users by eliminating intermediaries and delays.
- Empower Service providers with greater visibility and direct engagement opportunities with potential clients.
- Foster trust and transparency in service procurement by ensuring direct communication.

This initiative strives to create a seamless and efficient experience for both users and technicians, addressing service needs with speed and reliability.

1.3 Purpose

The purpose of this project is to create a platform that bridges the gap between users and skilled service providers, enabling direct communication and service access. By providing a centralized database of technician contact information, the project aims to:

- Simplify the process of finding and hiring reliable technicians for various services.
- Ensure transparency and convenience by allowing users to directly reach out to service providers without intermediaries.
- Support service providers in expanding their client base and enhancing their professional opportunities.

1.4 Motivation

The motivation behind this project stems from the need to address common challenges in connecting users with skilled service provider for essential services. Often, users face difficulties in locating reliable professionals, while technicians struggle to reach a wider audience. This inspired us to develop a platform that bridges this gap and offers a simple, effective solution.

Our key motivations include:

- **Improving Accessibility:** To create a straightforward and accessible system where users can quickly find and contact service provider for their specific needs.
- **Empowering Technicians:** To provide service provider with a platform to showcase their skills and directly connect with potential clients, fostering their professional growth.
- **Enhancing User Experience:** To eliminate the hassle of intermediaries and provide a transparent, efficient way for users to secure quality services.
- **Promoting Trust:** To build a trusted network where users can confidently connect with verified professionals for their requirements.

This project is driven by the vision to simplify service procurement, improve communication, and create value for both users and technicians.

1.5 Expected Outcome

The successful implementation of this project is anticipated to achieve the following outcomes:

- **Enhanced Connectivity:** Users will be able to directly contact service provider, simplifying the process of finding and securing skilled services.
- **Increased Accessibility:** A centralized platform will ensure users have easy access to a diverse range of service provider in various fields.
- **Empowered Service provider:** Service provider will gain greater visibility and the opportunity to expand their client base without relying on intermediaries.
- **Improved User Experience:** The platform will deliver a hassle-free and transparent experience for users, ensuring their service needs are met efficiently.
- **Trust and Reliability:** By fostering direct communication, the platform will build a trusted network of users and service provider, promoting long-term engagement.

This project aims to create a win-win scenario where users benefit from quick and reliable service access, and service provider s thrive through direct client interaction and increased business opportunities.

CHAPTER 2

BACKGROUND

2.1 Introduction

The advent of the internet has changed the World in a big way. in this Modern world, we are becoming more and more dependent on online-based technology. We rely on the Internet for each and everything in life. We tried to make an online web-based android application named employee management system by which it will be easy to remotely maintain the technician and the client's activity.

2.2 Related Works

This project builds upon existing efforts to streamline the connection between service providers and users through online platforms. Several applications and websites currently facilitate similar interactions, offering insights into the potential impact and value of such solutions.

- **Service Aggregator Platforms:**
  Popular platforms like TaskRabbit, UrbanClap, and Thumbtack connect users with service professionals but often include intermediaries, and commission systems, or require users to book through the platform itself. Our approach differs by enabling direct communication through technicians' contact numbers, reducing dependency on middlemen.
- **Classified Websites:**
  Websites such as Craigslist and OLX provide directories of service providers but lack the dedicated structure to ensure efficient and user-friendly connections. Our project aims to enhance usability with a specialized interface tailored for service provider-user interactions.
- **Directories and Listing Services:**
  Traditional online directories list contact details of professionals but typically lack a modern, interactive design or verification process. Our platform seeks to address these gaps by ensuring user convenience and the reliability of listed technicians.

By learning from these existing solutions, our project refines and enhances the user experience, providing a simpler, more transparent, and efficient way to connect users with skilled technicians.

2.3 Comparative Studies

To understand the unique value of our project, we compared it with existing platforms that connect users with service providers. While platforms like TaskRabbit, UrbanClap, and traditional online directories share a similar goal, they differ in approach, functionality, and user experience. The following table highlights the key differences:

Feature	Our Project	UrbanClap	Traditional Direction
Direct Contact	yes	Limited (via platform only	Yes
Intermediary-Free	yes	No	Yes
Verification of Technicians	yes	yes	No
User-friendly Interface	Highly optimized	Moderately optimized	Basic
Transparency	high	Moderate	Low

Table: 2.3.1 Comparative Studies.

2.4 Scope of the Problem

In today's fast-paced world, users often face significant challenges in finding reliable and skilled service providers for various services. Traditional methods, such as searching through classified ads or relying on word-of-mouth referrals, can be time-consuming and inefficient. Additionally, existing online platforms often involve intermediaries, which may complicate the process and increase costs. service providers, on the other hand, struggle with visibility and reaching potential clients effectively. This gap between users and service providers highlights the need for a streamlined, transparent, and accessible solution that directly connects users with professionals while eliminating unnecessary barriers.

2.5 Challenge

This project faced several challenges in its development and implementation. One of the primary challenges was ensuring the **accuracy and currency** of the service provider’s contact information. Given the dynamic nature of service availability and contact details, keeping this data up-to-date was essential for the platform’s reliability.

Another challenge involved creating a platform that is **user-friendly and intuitive** for people of all ages and technical skills. Ensuring that users could easily navigate the website, find the appropriate technician, and contact them directly was a critical aspect of user experience.

Additionally, **privacy and security** concerns had to be carefully addressed, particularly in terms of protecting both the users' and service provider personal contact information. Striking the right balance between convenience and privacy required thoughtful planning and the implementation of secure communication channels.

Finally, ensuring service provider **reliability** and **trustworthiness** presented another challenge. Without intermediary reviews or a rating system, users needed confidence in the service they were receiving. Developing a system that ensures only qualified and reliable service provider are listed was key to maintaining the platform's integrity.

These challenges demanded innovative solutions to create a trustworthy, accessible, and functional service for both users and service provider.

CHAPTER 3

REQUIREMENT SPECIFICATION

3.1 Requirement Collection Analysis

The admin is the one with the highest power and connects to all sections. After analyzing the data by admin, it will be forwarded to the service provider directly otherwise delete the data. Admin will check the data and can forward to the User or delete it. The employee will perform the task and submit it. Some requirements are needed to access like a valid User ID and Password for login. To be an admin will create the User ID and password.

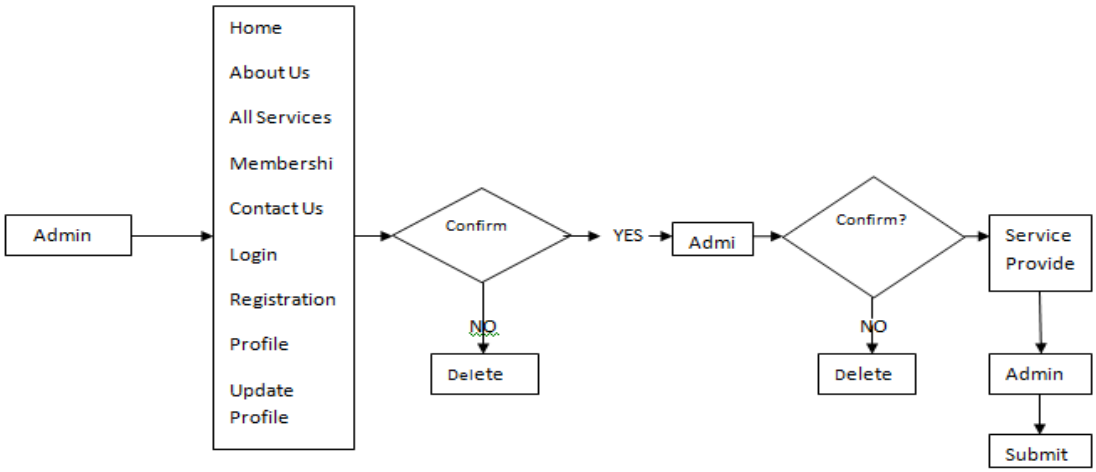


Figure 3.1.1: Requirement Collection and Analysis

3.2 Use Case Modeling and Description

A use- case model is a model of how different types of users interact with the system to solve a problem. first of all, the admin needs to login to access the functionality and to add the Service Provider which is showing in the use case as included. After successful Login can perform to Create project. Create user, Create group, text transfer and User information, Service Provider Information purpose of the Service.

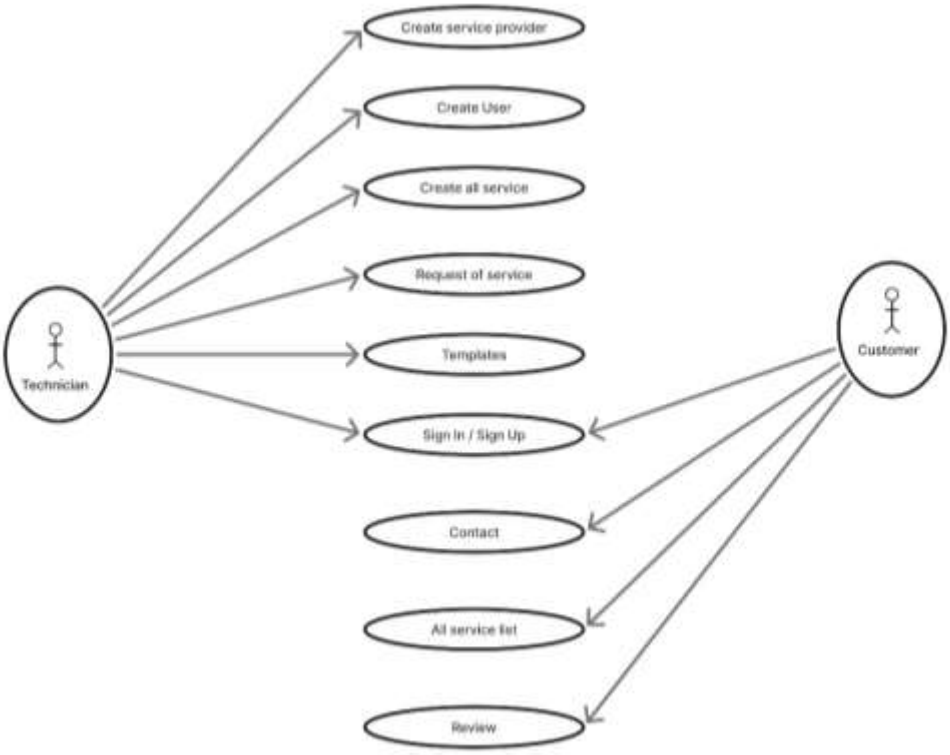


Figure 3.2.1: Use Case Modeling and Description

3.3 Logical Data Model

All the data will have to remain in the database which is shown below logical data model Figure and it will be the current time responsible. Firstly, data will transfer from the database to the website or web version and after that, It will transfer to the Android application. That means the mobile application will take all the data from the website, which makes the application lighter.

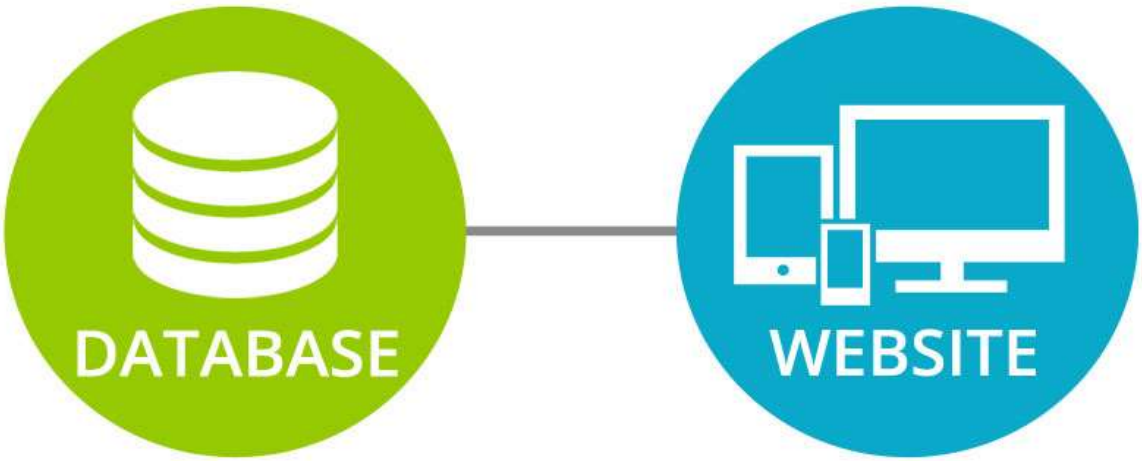


Figure 3.3.1: Logical Data Model

3.4 Design Requirements

Design requirements are very important for Website mobile applications. It attracted users to use. So, to complete the design we required the proper website and Mobile application design skills. For this, we have to know various types of computer programming languages. Market analysis can be a good trick for the design. We have to give proper attention to designing the database so that it works appropriately and easy way.

CHAPTER 4

DESIGN SPECIFICATION

4.1 Interaction Design and UX

We try to make our project ux design as simple as possible. Because we research on the internet and visit various site. We are able to find out that more engagement happened on simple ux design application. So, we make our application design as simple as possible.

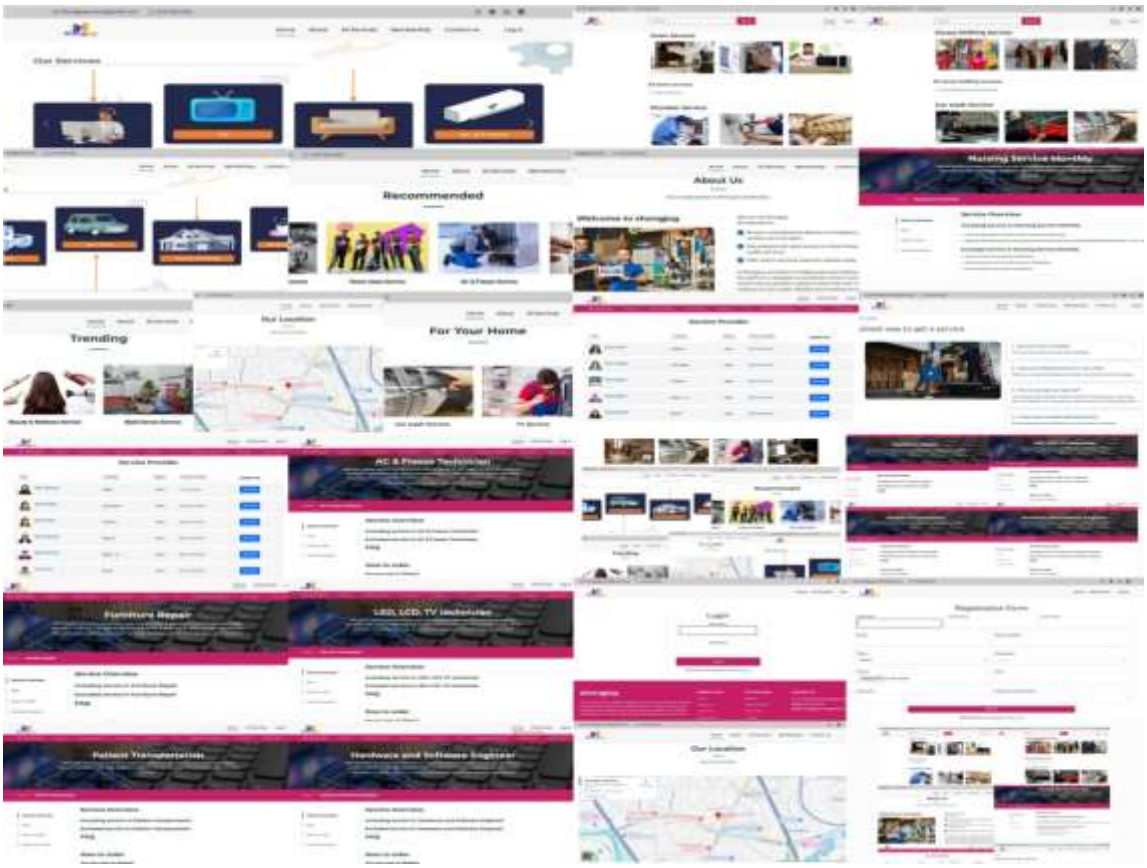


Figure 4.1.1: Interaction Design and UX

4.2 Front-End Design

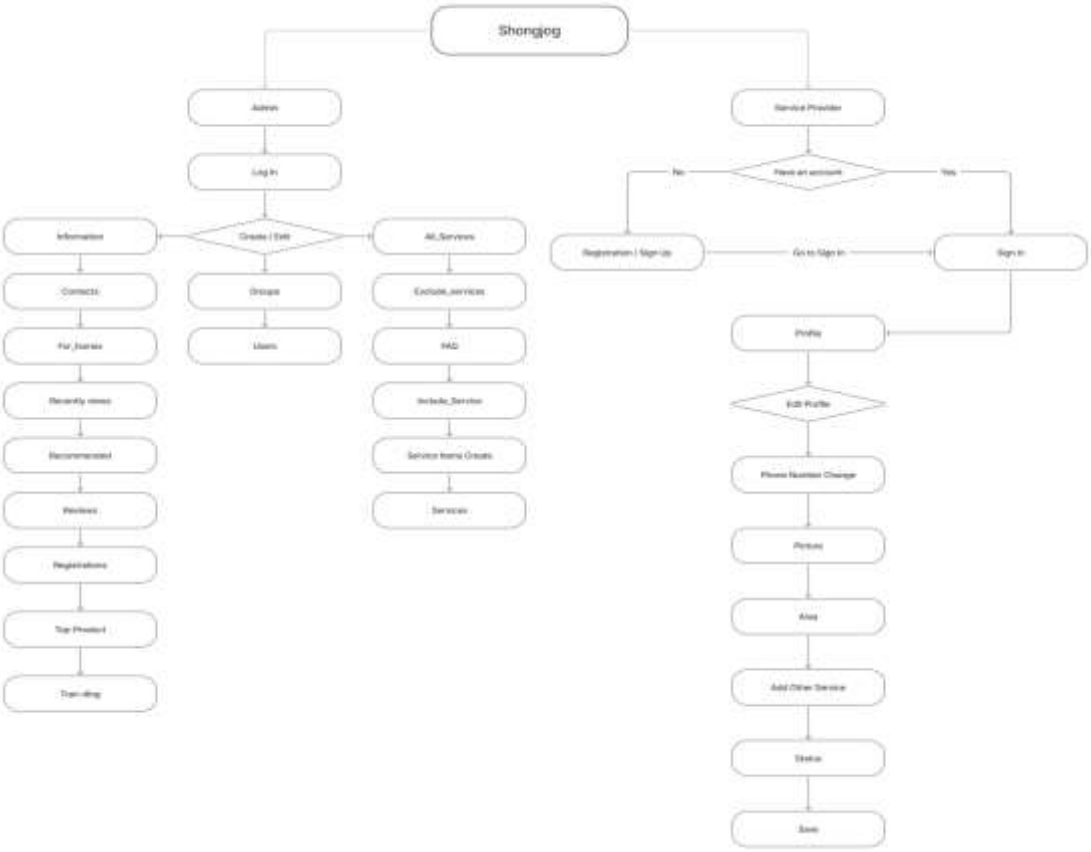
Front-end design is the one of the best parts for directly interacting with the user. So that consider this factor we make a user-friendly, easier-to handle, and smoothly working design. Here every customer can easily able to handle this application. We use some front-end technology to design this tremendous application. Those are html-5, css-3, bootstrap-5, JavaScript, jQuery, etc.



4.2.1: Front-end design.

4.3 BACK-END DESIGN

Basically, in programming back-end men's rendering server side. Usually, the backend consists of Three parts: an application, a server and a database. For database we use SQLite server. Some back-end technology that are python and framework Django.



4.3.1: Back-End Design

4.4 Implementation Requirements

It was our first management related work so we had to learn a lot of new technology and spend huge time to full fill all the requirements. We need to think about our unique UX design.

CHAPTER 5

IMPLEMENTATION AND TESTING

5.1 Implementation of Database

SQLite is like a tiny, but mighty, superhero in the world of databases. Imagine having a faithful sidekick that's always ready to store and retrieve your data, without needing a fancy setup or a separate server. SQLite is a self-contained, serverless, and zero-configuration database engine. It's like having a complete SQL database in a single file on your disk.

Here are some reasons why SQLite might become your new best friend:

1. **Server less**: No need for a separate database server.
2. **Zero Configuration**: Works right out of the box.
3. **Portable**: The entire database is in a single file.
4. **Lightweight**: Takes up minimal disk space and memory.
5. **Reliable**: Supports ACID transactions.

Here are some limitations to keep in mind:

1. Concurrent Write Operations: SQLite can handle only one write operation at a time.
2. Large Databases: Not ideal for very large databases (typically over 1TB).
3. Network Access: Doesn't support multiple users accessing the database over a network.

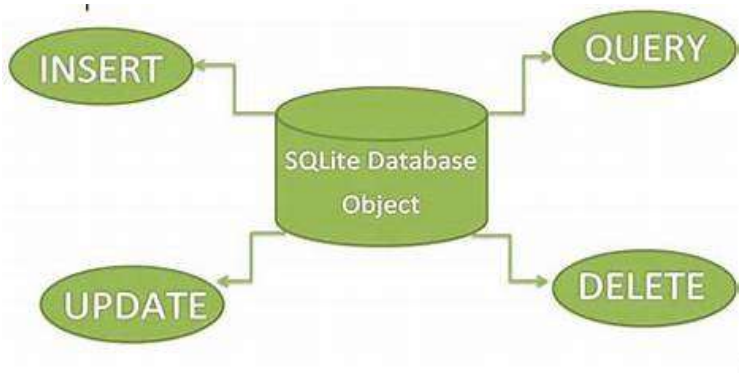


Figure 5.1.1: Implementation of database

5.2 Implementation of Front-end Design

Front-end design is very essential because of its visualization to the user. Developing a design for a site, all time we have to consider the user-friendly and smooth front end. It is very difficult to make the perfect design that attracted all.

5.2.1 Home View:

Home page which shows a cover photo that looks good. On the top header side Above-E-mail, Phone Number and Social Account link section where is logout remain. On the header the key Features-Home, About, All Services, Membership, Contract Us, Login section are available for entertainment.



5.2.1: Web Home page view

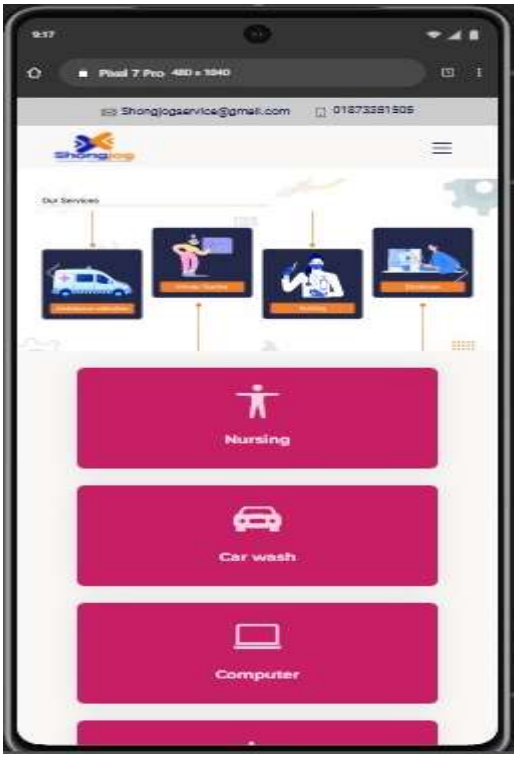


Figure 5.2.2: Mobile Responsive Home Page

5.2.2 Registration View

The registration process is a critical component of the website, allowing service providers to create profiles and users to access services seamlessly. Below is a detailed description of the registration process implemented in the project. The registration system ensures that service providers can provide accurate details about their skills, contact information, and availability, while users can register to receive updates and save their preferences for future use.

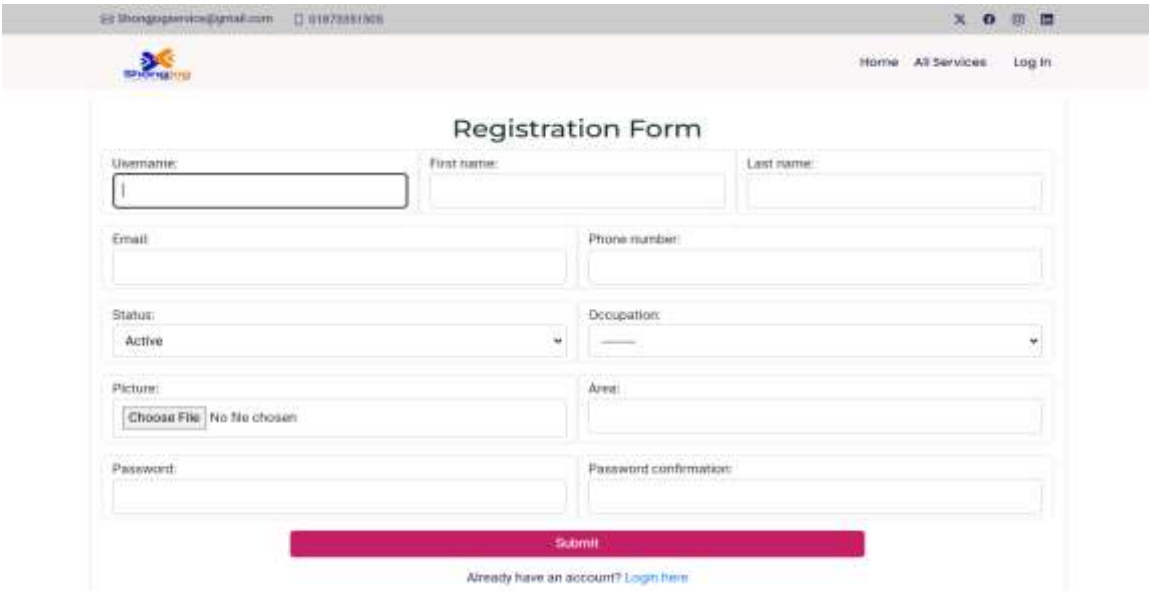


Figure 5.2.3: Web view of Registration

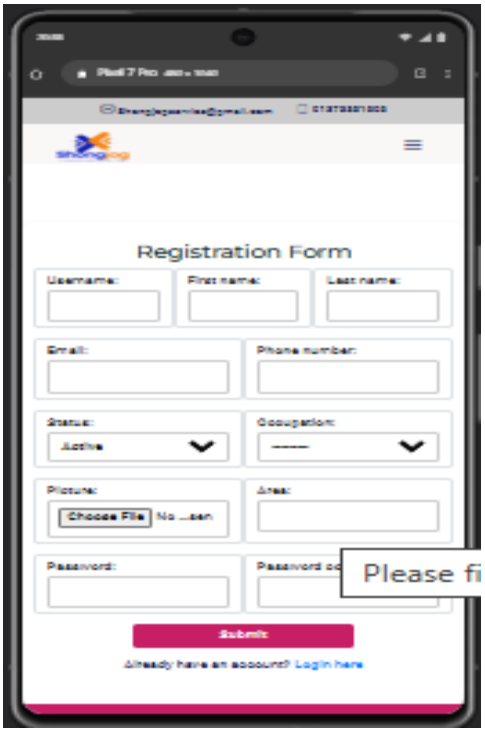


Figure 5.2.4: Mobile Responsive of Registration

5.2.3 For Your Home View

Our website is designed to simplify the process of finding skilled service providers for home services, offering a direct and user-friendly platform. Whether it's a Furniture Service, Car wash Service, TV Service, or Computer Service the platform connects users with reliable professionals to address their home service needs quickly and efficiently.

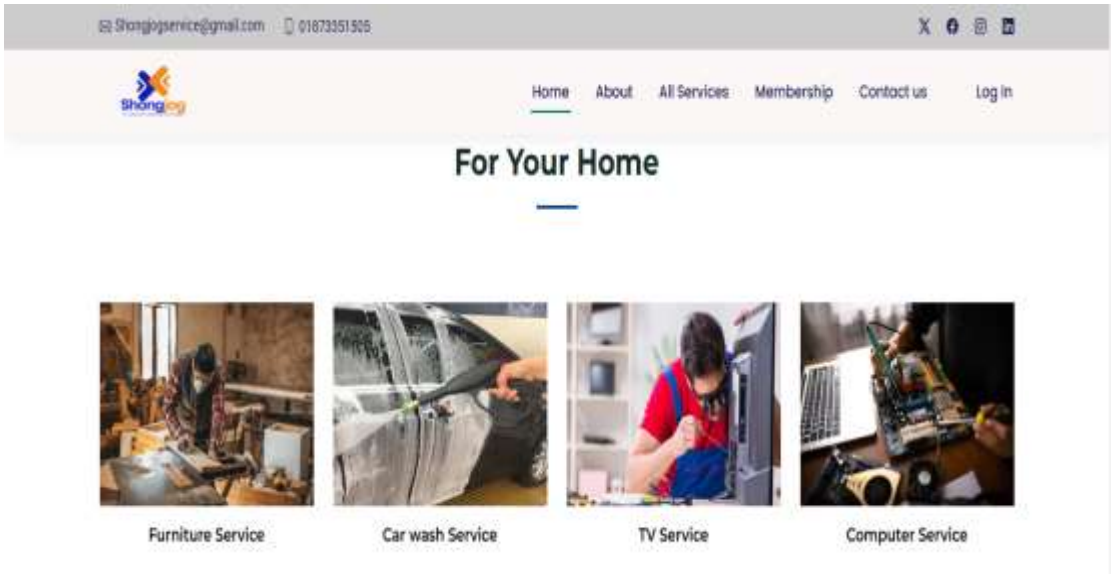


Figure 5.2.5: Web View of For Your Home

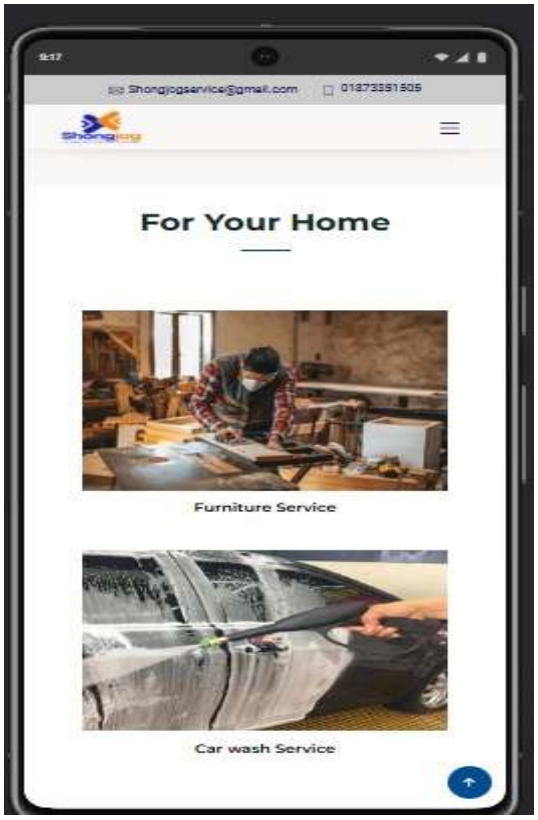


Figure 5.2.6: Mobile Responsive of For Your Home

5.2.4 Recently View

The "Recently Viewed" feature enhances the user experience by allowing users to quickly revisit service provider profiles they have previously viewed. This functionality is especially useful for users who may need to compare multiple service providers or return to a profile at a later time without repeating their search. Show the Recently Viewed feature: GAS line & GAS stove Service, Service, Nursing, Car wash Service.

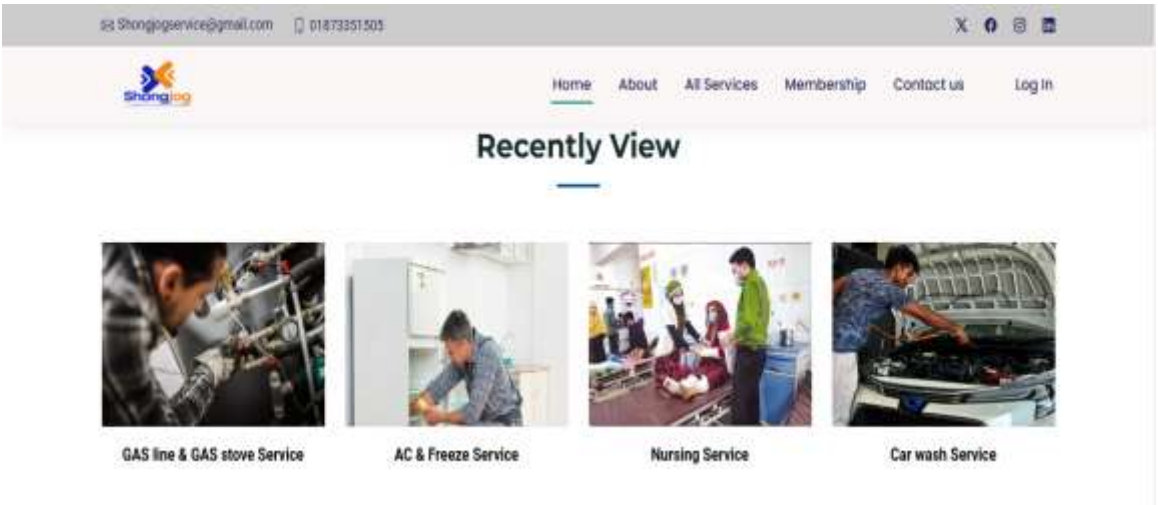


Figure 5.2.7: Web View of Recently



Figure 5.2.8: Mobile Responsive of Recently

5.2.5 Trending View

The "Trending View" feature highlights popular and frequently accessed service provider profiles on the website, helping users quickly identify trusted and in-demand professionals. This functionality serves as a guide for users who are unsure about which service provider to choose by showcasing those with a proven track record of service quality and user preference. Trending Service: Oven Service, Beauty & Wellness Service, Maid Servan Service, Home clean Service.

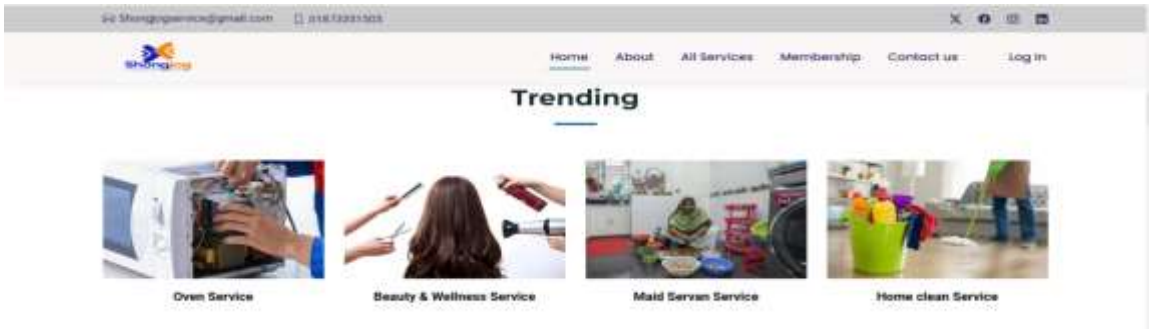


Figure 5.2.9: Web View of Trading



Figure 5.2.10: Mobile Responsive of Trading

5.2.6 About Us View

At shongjog, we are committed to delivering high-quality services we provide web development, consulting, and maintenance services tailored to meet your specific needs. Our journey began with a simple goal: to provide reliable and innovative solutions that empower our clients to achieve their objectives and exceed their expectations.

Our Mission:

Our mission is to create an effective connection between service providers and customers, enabling them to easily, quickly, and reliably access services. We are building a platform that allows customers to connect with the best professionals in their area.

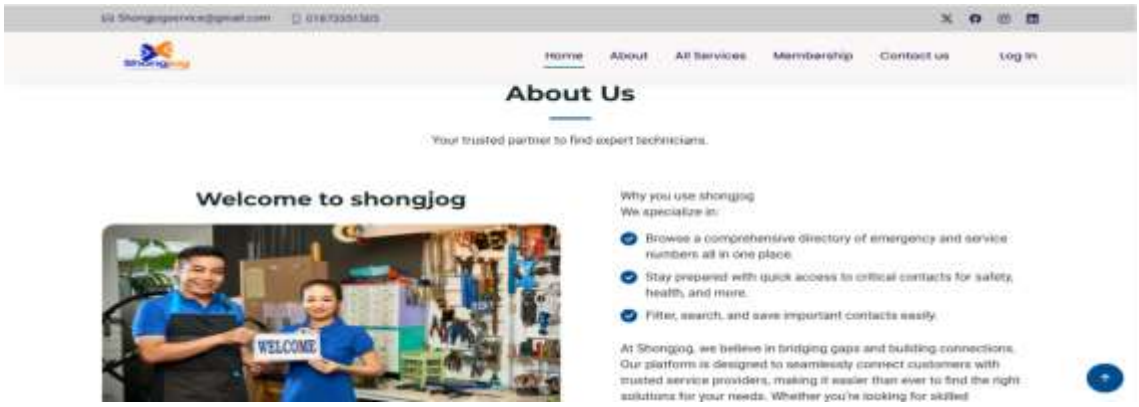


Figure 5.2.11: Web View of About Us



Figure 5.2.12: Mobile Responsive of About Us

5.2.7 LOCATION VIEW

This location shows our company location.

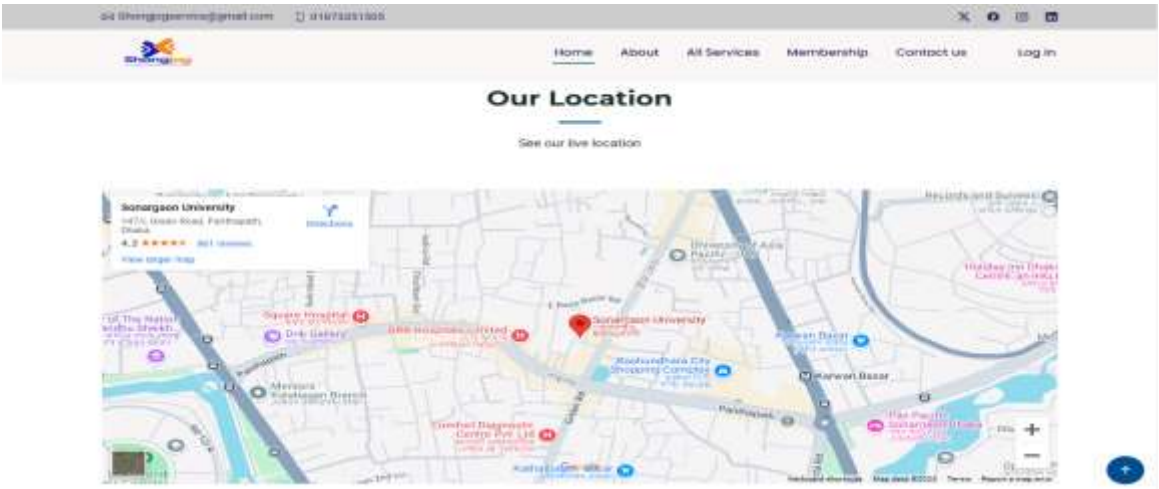


Figure 5.2.13: Web view of the location

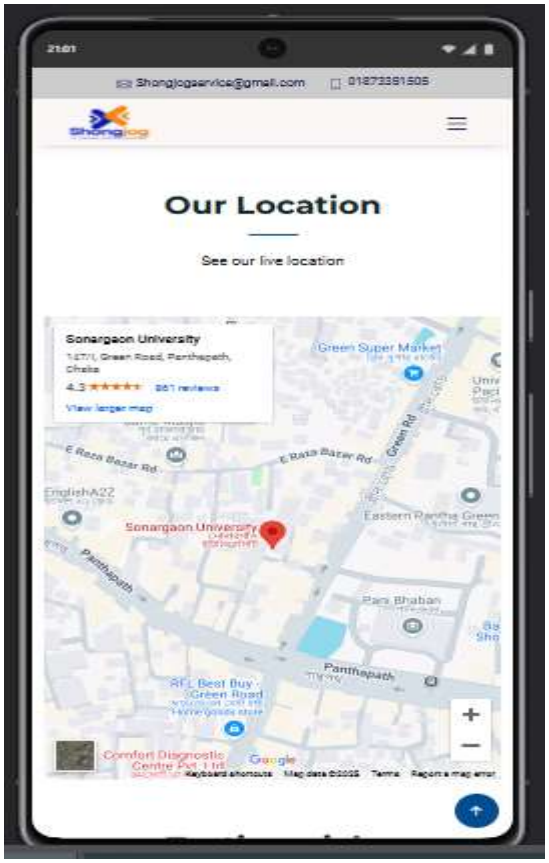


Figure 5.2.14: Mobile Responsive of Location

5.2.8 All Service View

The "All Services" section provides a comprehensive overview of the range of services offered by the platform, making it easy for users to find the exact help they need. This section is designed to cater to diverse requirements, ensuring that users can connect with service providers across multiple categories with ease. We extra added a FQA.

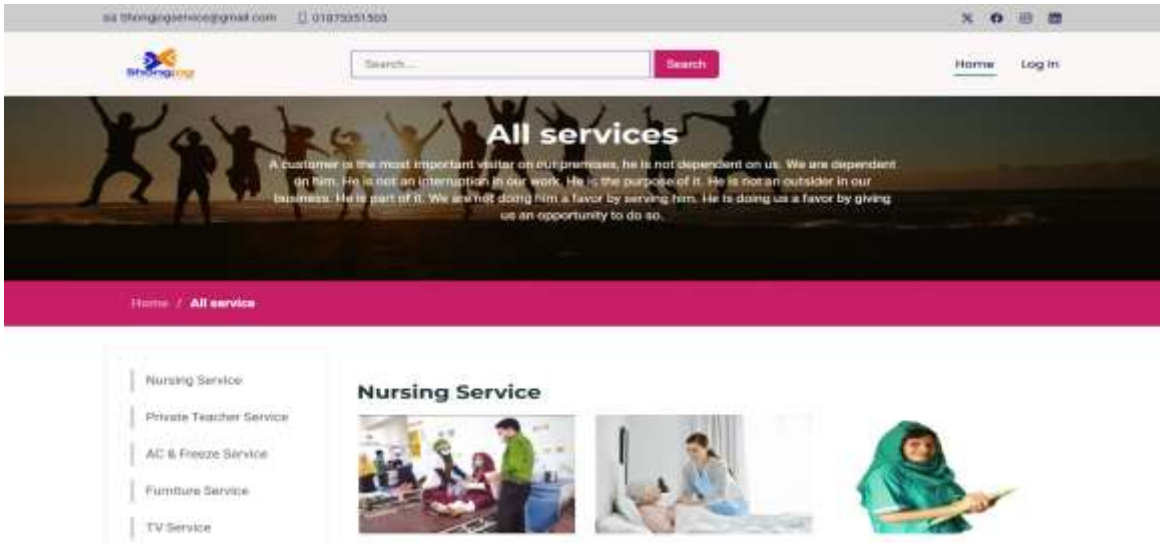


Figure 5.2.15: Web View of All Service

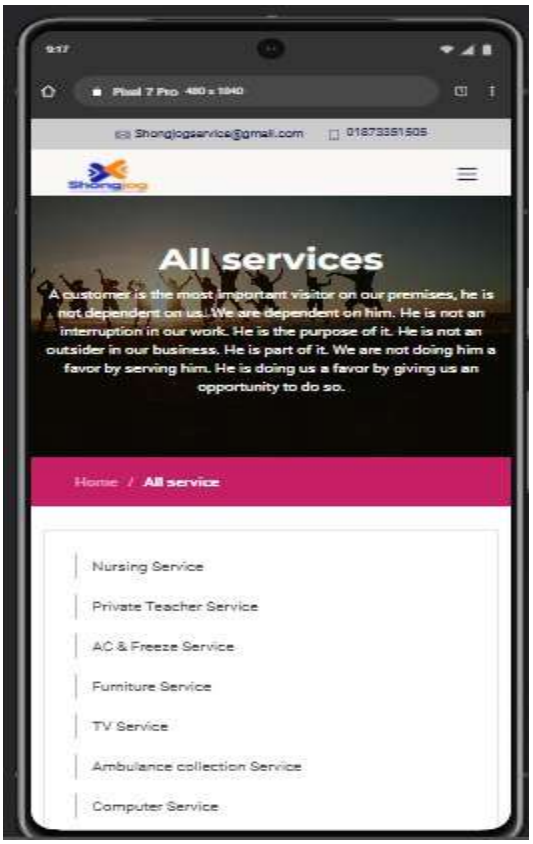


Figure 5.2.16: Mobile Responsive of All Service

5.2.9 Testimonials View

The testimonial part is the review part. The "Review" section plays a crucial role in building trust and credibility on the platform. It allows users to share their experiences with service providers, providing valuable insights for future users and encouraging service providers to maintain high standards of service. This section is designed to facilitate transparency and feedback within the service ecosystem.

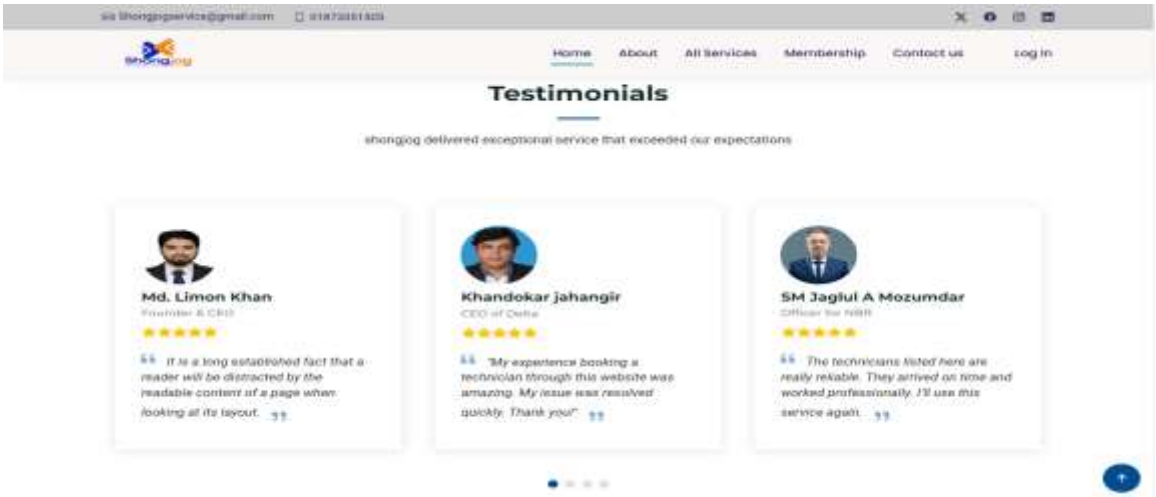


Figure 5.2.17: Web View of Testimonials.

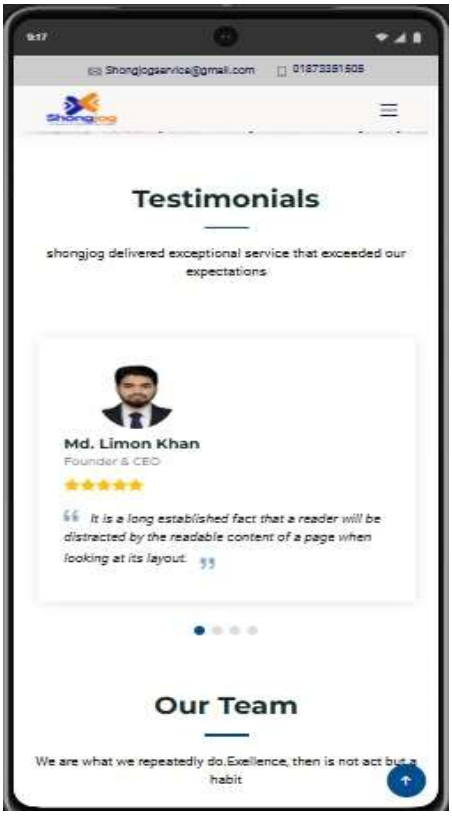


Figure 5.2.18: Mobile Responsive of Testimonial

5.2.10 Contact View

The "**Contract**" section is a vital part of the platform, ensuring both users and service providers are clear on their rights and responsibilities before engaging in any service transaction. This section formalizes the relationship between the platform, service provider, and users, providing legal protection and establishing guidelines for the service process.

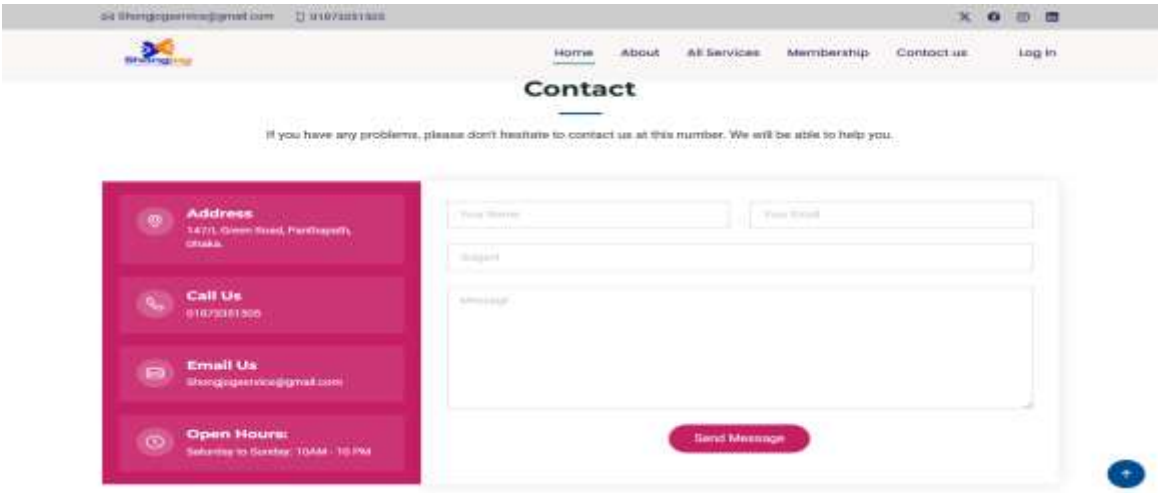


Figure 5.2.19: Web View of Contact

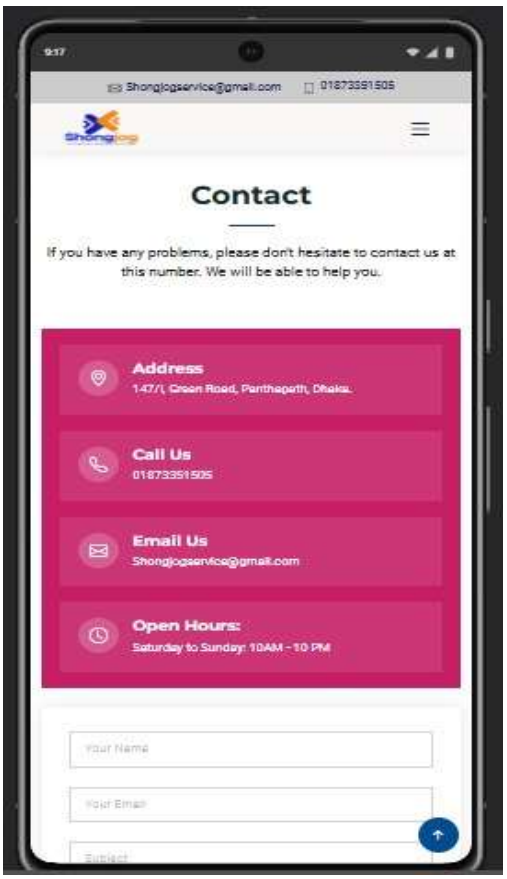


Figure 5.2.20: Mobile Responsive of Contact

5.2.11 Admin Panel View

The "**Admin**" role is critical for overseeing and managing all aspects of the platform. The admin has the highest level of authority and access to the system, ensuring smooth operations and handling administrative tasks, system settings, user management, and data security. This section outlines the key responsibilities and tasks that fall under the admin role, as well as the tools and features available to them for platform management.

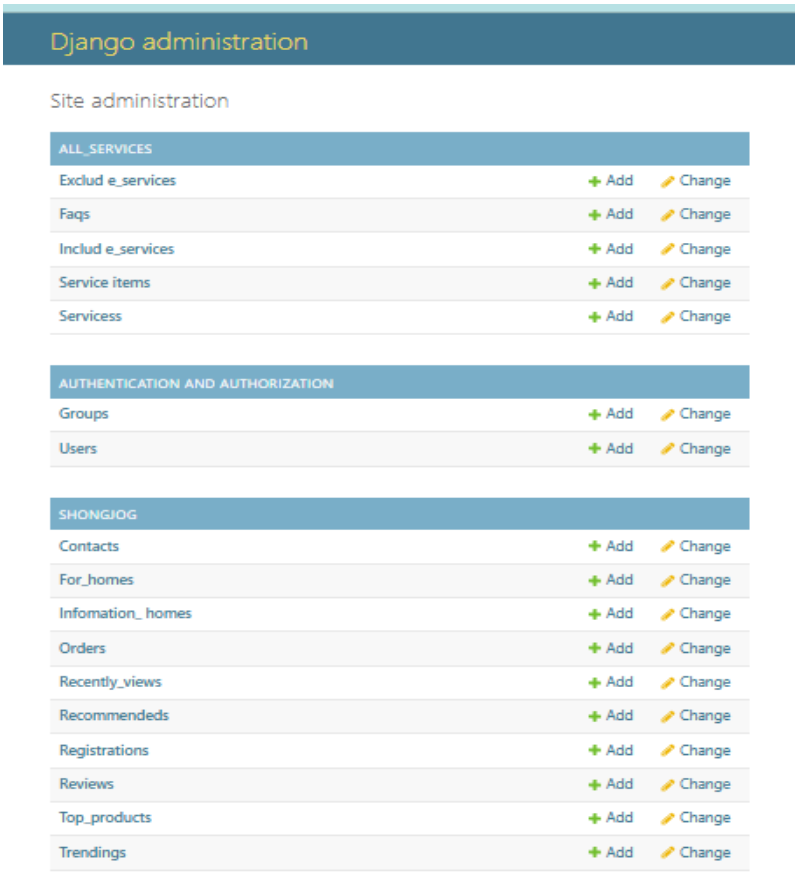


Figure 5.2.21: Web View of Admin Panel

5.3.1 Service Provider

Testing implementation is a crucial step in the development process to ensure that the website functions as intended and provides a seamless experience for both users and service provider. This section outlines the types of testing conducted, tools used, and the results achieved during the testing phase of the project.

Generally, create Service Provider information perform to hold the Service information. After, clicking the create all service a Window will open. It asks to input the Service Provider Name, Location, Status, Phone No.



Figure 5.3.1: Web View of Service Provider

CHAPTER 6

CONCLUSION AND FUTURE WORKS

6.1 Conclusion

This project aims to bridge the gap between users and skilled service providers by providing a direct, efficient, and transparent platform for service connections. By eliminating intermediaries, the website empowers users to access reliable services quickly and enables service providers to expand their client base. The focus on user-friendly design, accurate information, and secure communication ensures a seamless experience for both parties. Challenges such as maintaining data accuracy, safeguarding privacy, and building trust have been addressed with thoughtful solutions, enhancing the platform's reliability and usability. Ultimately, this initiative strives to simplify service procurement, foster trust between users and service providers, and create a sustainable system that benefits both groups. Through this project, we aim to redefine how users and service providers interact, making the process more accessible and convenient.

6.2 **Scope for Further Development**

This project lays a strong foundation for connecting users with service providers, but there is significant potential for further development those features are-

- **Rating and Review system**
- **Multi-language support**
- **Real-time availability feature**
- **In-app messaging or chat functionality**
- **Secure payment gateway**

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