
vServ

A MINI PROJECT REPORT

by

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in partial fulfillment for the award of the degree

of

BACHELOR OF TECHNOLOGY

in

COMPUTER SCIENCE AND ENGINEERING

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

under the guidance

of

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

VISWAJYOTHI COLLEGE OF ENGINEERING AND

TECHNOLOGY, VAZHAKULAM

JUNE 2023

VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY, VAZHAKULAM

Department of Computer Science and Engineering

Vision

Moulding socially responsible and professionally competent Computer Engineers to adapt to the dynamic technological landscape

Mission

1. Foster the principles and practices of computer science to empower life-long learning and build careers in software and hardware development.
2. Impart value education to elevate students to be successful, ethical and effective problem-solvers to serve the needs of the industry, government, society and the scientific community.
3. Promote industry interaction to pursue new technologies in Computer Science and provide excellent infrastructure to engage faculty and students in scholarly research activities.

Program Educational Objectives

Our Graduates

1. Shall have creative and critical reasoning skills to solve technical problems ethically and responsibly to serve the society.
2. Shall have competency to collaborate as a team member and team leader to address social, technical and engineering challenges.
3. Shall have ability to contribute to the development of the next generation of information technology either through innovative research or through practice in a corporate setting
4. Shall have potential to build start-up companies with the foundations, knowledge and experience they acquired from undergraduate education

Program Outcomes

1. **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. **Problem analysis:** Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences

3. **Design / development of solutions:**Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety and the cultural, societal and environmental considerations.
4. **Conduct investigations of complex problems:**Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data and synthesis of the information to provide valid conclusions.
5. **Modern tool usage:**Create, select and apply appropriate techniques, resources and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
6. **The engineer and society:**Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. **Environment and sustainability:**Understand the impact of the professional engineering solutions in societal and environmental contexts and demonstrate the knowledge of and need for sustainable development.
8. **Ethics:**Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice
9. **Individual and team work:**Function effectively as an individual and as a member or leader in diverse teams and in multidisciplinary settings
10. **Communication:**Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations and give and receive clear instructions.
11. **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and unread in a team, to manage projects and in multidisciplinary environments.
12. **Life-long learning:**Recognize the need for and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Outcomes

1. Ability to integrate theory and practice to construct software systems of varying complexity
2. Able to Apply Computer Science skills, tools and mathematical techniques to analyse, design and model complex systems
3. Ability to design and manage small-scale projects to develop a career in a related industry.

**VISWAJYOTHI COLLEGE OF ENGINEERING AND
TECHNOLOGY, VAZHAKULAM**
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



BONAFIDE CERTIFICATE

Certified that the mini project work entitled “ vServ ” is a bonafide work done by **CRISTIN SILJO (VJC20CS040), AASHUTHOSH S (VJC20CS001), ANANDHU S (VJC20CS020), GEORGE GEO (VJC20CS054)** in partial fulfillment of the award of the Degree of **Bachelor of Technology in Computer Science & Engineering** from APJ Abdul Kalam Technological University, Thiruvananthapuram, Kerala during the academic year 2022-2023

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ACKNOWLEDGEMENT

First and foremost, we thank **God Almighty** for His divine grace and blessings in making all these possible. May He continue to lead us in the years. It is our privilege to render our heartfelt thanks to our most beloved Manager **Msg. Dr. Pius Malekandathil**, our director **Rev. Fr. Paul Nedumpurath** and our Principal **Dr. K K Rajan** for providing us the opportunity to do this mini project during the sixth semester of our B.Tech degree course. We are deeply thankful to our Head of the Department, **Mr. Amel Austine** for his support and encouragement. We would like to express our sincere gratitude and heartfelt thanks to our Mini Project Guide **Mrs. Dona Jose**, Asst. Professor, Department of Computer Science and Engineering for her motivation, assistance and help for the project. We also express sincere thanks to our Mini Project Coordinator **Mrs. Sona Baby and Mrs. Nimmy George** Asst. Professor, Department of Computer Science and Engineering for her guidance and support. We also thank all the staff members of the Computer Science Department for providing their assistance and support. Last, but not the least, we thank all our friends and family for their valuable feedback from time to time as well as their help and encouragement.

DECLARATION

We undersigned hereby declare that the mini project report “VServ - A DOMESTIC SERVICE WEBSITE”, submitted for partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology of the APJ Abdul Kalam Technological University is a bonafide work done by us under the supervision of Mrs. Dona Jose. This submission represents ideas in our own words and where ideas or words of others have been included, We have adequately and accurately cited and referenced the original sources. We also declare that We have adhered to the ethics of academic honesty and integrity and have not misrepresented or fabricated any data or idea or fact or source in our submission. We understand that any violation of the above will be a cause for disciplinary action by the institute and/or the University and can also evoke penal action from the sources which have thus not been properly cited or formed the basis for the award of any degree, diploma or similar title of any other University.

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ABSTRACT

Domestic Service Website is an online platform that connects households with domestic service providers such as cleaners, cooks, and home maintenance professionals. The website offers a variety of services that can be scheduled and paid for online, providing convenience and flexibility to busy households. Users can browse available services, view provider profiles and reviews, and schedule appointments that suit their needs. Service providers can create profiles, showcase their skills, and experience, and manage their schedules and bookings through the website. Domestic service websites typically feature user-friendly interfaces that allow customers to easily book and pay for services, while also providing a secure and reliable platform for service providers to offer their services. Overall, domestic service websites provide a convenient and efficient way to access household services and are becoming increasingly popular among consumers seeking to outsource domestic tasks. VServ provide an interface that links both customers and service providers.

Key Words:– household services, software engineering, stress management, machine learning, image processing

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List of Abbreviations

HTML	HyperText Markup Language
CSS	Cascading Style Sheets
SSD	Solid State Drive
HDD	Hard Disk Drive
MYSQL	My Structured Query Language
EJS	Embedded JavaScript
GUI	Graphical User Interface
CPU	Central Processing Unit

Chapter 1

INTRODUCTION

In today's fast-paced world, our lives are filled with numerous responsibilities and commitments, leaving us with little time and energy to manage the various tasks that come with maintaining a household. This is where a domestic service website steps in to provide a much-needed solution.

A domestic service website serves as a centralized platform that connects individuals and families with trusted professionals who excel in various domestic tasks. It addresses the growing need for reliable assistance in managing the demanding and time-consuming aspects of home maintenance.

Many of us find ourselves juggling multiple responsibilities, such as careers, parenting, education, and personal commitments. This leaves little time for daily chores and household tasks. A domestic service website offers a lifeline by providing access to skilled professionals who can efficiently handle these tasks, freeing up valuable time for individuals to focus on other priorities.

Domestic tasks often require specific skills and knowledge to be performed effectively. Whether it's deep cleaning, gardening, home maintenance, or pet care, professionals listed on a domestic service website are typically experienced and well-trained in their respective fields. By utilizing their expertise, individuals can ensure that their home is well-cared for and maintained to a high standard.

The convenience offered by a domestic service website cannot be overstated. From the comfort of one's home or office, individuals can browse through a wide range of services and choose the ones that best suit their needs. These websites often provide flexible scheduling options, allowing users to book services at their preferred time and frequency. This flexibility ensures that domestic assistance can be tailored to individual schedules and preferences.

Trust is paramount when inviting someone into your home. Reputable domestic service websites take this aspect seriously by conducting thorough background checks and verification processes for their service providers. Users can have peace of mind knowing that the professionals they hire are trustworthy and reliable.

Domestic service websites typically offer a comprehensive range of services to meet various

household needs. From routine house cleaning and laundry to specialized services like home organization, child care, and elderly care, these platforms cater to a wide array of requirements. Users can easily find and book the specific services they require, tailored to their unique circumstances.

The demands of modern life make it increasingly challenging to manage household tasks effectively. A domestic service website bridges the gap between busy individuals and skilled professionals, offering a convenient and reliable solution. By leveraging the expertise of trusted service providers, individuals can reclaim their time, reduce stress, and ensure that their home is well-maintained. Whether it's a one-time service or ongoing assistance, a domestic service website is an indispensable resource in today's fast-paced world.

1.1 Problem Definition

The domestic services industry faces several challenges that can be addressed through the implementation of a comprehensive domestic services system. Many individuals struggle to find reliable and trustworthy domestic service providers. The industry lacks a centralized platform that thoroughly vets service providers, leading to concerns about professionalism, competence, and security. This lack of trust creates a barrier for individuals seeking domestic assistance. Modern lifestyles are filled with demanding commitments, leaving individuals with limited time and energy to manage household tasks. The absence of a streamlined system for accessing domestic services further exacerbates this issue. People need a convenient and efficient way to connect with service providers who can handle various tasks, allowing them to focus on other priorities. The process of finding and booking domestic services can be cumbersome and time-consuming. Individuals often have to rely on word-of-mouth recommendations or spend hours searching online to find suitable service providers. The lack of a user-friendly and centralized platform adds to the frustration and inefficiency of this process. Domestic service needs vary from person to person and household to household. However, the current system often fails to offer customizable options that cater to specific requirements. This lack of flexibility can result in individuals either settling for services that do not fully meet their needs or struggling to find providers who can accommodate their preferences. Communication and coordination between service providers and customers can be a significant pain point. Misunderstandings, scheduling conflicts, and inadequate communication channels can lead to frustration and subpar service experiences. There is a need for a system that facilitates seamless communication and efficient coordination between all stakeholders involved. The current domestic services landscape may not provide a comprehensive range of services, limiting individuals' options for meeting their specific needs. Individuals may struggle to find providers who offer specialized services like elderly care, pet grooming, or home organization. A lack of diversity in service offerings restricts the ability to find comprehensive

solutions under one platform.

1.2 Objective

The objective of implementing a domestic services system is to create a centralized and efficient platform that connects individuals seeking domestic services with reliable and trustworthy service providers. The system aims to streamline the process of finding, booking, and managing domestic services, ultimately enhancing customer satisfaction, convenience, and peace of mind. Establish a rigorous vetting process for service providers to ensure their credibility, professionalism, and competence. Build a reputation for the platform as a trusted source for accessing reliable domestic services. Create a user-friendly interface that simplifies the search and booking process for domestic services. Provide intuitive features that enable users to easily customize and schedule services based on their specific needs and preferences. Expand the range of domestic services available on the platform to cater to diverse household needs. Include specialized services such as elderly care, pet care, home organization, and more, ensuring a comprehensive selection for users. Establish seamless communication channels between service providers and customers, enabling clear and timely interactions. Ensure effective coordination, minimizing misunderstandings and addressing scheduling conflicts promptly.

1.3 Scope

Our system offers online booking and scheduling for professional house cleaning services, including options for regular maintenance, deep cleaning, and specialized cleaning tasks. It provides a platform for homeowners to connect with skilled professionals for services such as plumbing, electrical repairs, carpentry, painting, and general home maintenance. The website also includes a chat feature that is embedded to ensure communication between users and service providers. After registering for a free account as a user, users can select services of their own choice, after payment for service they can rate it and send feedback. We can also view the location of service providers so users can select providers based on locations closer to them. The service provider can choose to accept or reject services based on their availability.

Chapter 2

LITERATURE SURVEY

2.1 Unionizing domestic workers

The paper explores studies and research on unionizing domestic workers. It focuses more on women workers in Bangalore. It explains the context in which a huge number of women in India have been forced towards domestic work as a livelihood option. It also talks about the detailed situational necessity which resulted in the majority of the middle and upper-class households in urban centers of India opting for domestic help. It gives a detailed account of the various aspects of organizing and mobilizing domestic workers. It also presents the challenges faced by trade union leadership, INTUC, and KDWC, from various quarters while the recruitment drive was taking place in Bangalore city.

2.1.1 Advantages

- It illustrates how teamwork with communication helps in mobilizing domestic workers and addressing their grievances and issues
- It depicts that in modern times the need for a domestic service worker is necessary to accommodate the busy going lives of people who work in corporate who may not manage all tasks at once
- Detailed Analysis of issues concerning domestic workers which is specific to their region.

2.1.2 Disadvantages

- It is region-specific and it does not explore the issues and concerns of domestic workers outside the given region.
- It uses a traditional approach of connecting people, while it may be easier for all workers to participate in this method, the time taken to analyze and understand data takes a long time.

- The paper does not have any alternate methods to unionize domestic workers , most interviews and information is taken from people who are members of trade union , those who are not part of the union may not provide much information.

2.2 An Online System for Household Services

The paper examines an online structure/system for assigning household services where modules consist of registration, service, and payment. Users register for a free account, request a required service, and finally payment of the corresponding service is completed.

2.2.1 Advantages

- Convenience: Online domestic services provide convenience by allowing users to access various services from the comfort of their homes. They can book appointments, schedule services, and make payments online, saving time and effort.
- Payment: Payment interface like Woo commerce consists of modern payment methods such as net banking, pay, apple pay, and card-based payments.

2.2.2 Disadvantages

- Fraudulent service providers: Despite efforts to verify and authenticate service providers, there is still a risk of encountering fraudulent individuals or companies on online platforms. Users need to be cautious and conduct their research before hiring someone. There is no verification step involved in checking service providers.
- Privacy concerns: When using online domestic services, users may need to provide personal information, such as their address or contact details. There is a potential risk of this information being mishandled or misused, highlighting the importance of data protection and privacy policies.
- Quality variations: Online platforms often have a wide range of service providers, and the quality of services may vary. Users may need to rely on reviews and ratings to make informed decisions, but even then, there can be inconsistencies in service quality.
- Configuration issues: The tech stack utilized is prone to configuration issues such as incorrect file permissions, MYSQL configuration, network configuration, etc.....

2.3 An online system for home services

The paper examines the system behind the mobile app which connects service providers and users with UI designed specifically for android devices.

2.3.1 Advantages

- **Wide Reach:** Android is a widely adopted mobile platform, and developing an app for it allows you to reach a large user base. This increases the chances of connecting service seekers with service providers, creating a thriving ecosystem within the app.
- **Payment Integration:** Integrating payment gateways within the app simplifies the payment process. Users can securely make payments for the services they receive without the need for cash transactions. This enhances convenience and reduces payment-related issues.
- **Positive brand image and reputation:** Demonstrating a commitment to accessibility and inclusivity helps build a positive brand image. Companies that prioritize inclusivity are often seen as socially responsible and caring, which can enhance their reputation and attract more customers.

2.3.2 Disadvantages

- **Platform Limitation:** Developing an Android app means targeting a specific platform. This limits your reach to Android users only, excluding potential users who use other operating systems like iOS. To reach a broader audience, you may need to invest in developing apps for multiple platforms.
- **User Adoption:** Convincing users to download and use a new app can be challenging. Users may already have established habits or preferred methods for finding domestic services, and getting them to switch to your app may require significant marketing and promotional efforts.
- **Dependency on Internet Connectivity:** An Android app relies on Internet connectivity for its functionality. In areas with poor or unstable internet access, users may face difficulties in using the app effectively. Offline functionality and seamless synchronization can help mitigate this issue to some extent.

2.4 At DoorStep: An Innovative Online Application for Household Services

This Paper describes, At DoorStep: An Innovative Online Application for Household Services Application is a mobile market for local services. It helps the user to hire workers for fulfilling

their service needs such as Beauty and Wellness, Home Maintenance, Repairs, Home Care and Design, etc. It is a portal for connecting users with young, hardworking people working hard to make a difference in the lives of people by serving their service needs at their doorsteps.

2.4.1 Advantages

- **Double Verification:** An OTP is sent to the customer by the service provider, this ensures that the right service provider is assigned to the customer for the requested service.
- **No Enrollment Cost:** Service Providers do not need to pay a fee for enrolling as a service provider.

2.4.2 Disadvantages

- **Limited payment methods:** The system only has credit payments with MasterCard. Those lacking credit payment or have other preferences of payment such as cash-on-delivery or net banking may not find this a suitable approach to booking services
- **Lacks Communication Features:** The communication feature between the user and service provider is not established, it may lead to a lack of understanding of the service requested in certain cases.

Chapter 3

PROPOSED SYSTEM

The proposed system aims to create an online platform that connects homeowners with service providers for various domestic services. It will streamline the process of finding reliable service providers, scheduling appointments, and managing payments, providing convenience and efficiency for both homeowners and service providers.

There are several benefits to using our proposed system. Homeowners and service providers can create accounts with their personal information, contact details, and service preferences. Homeowners can search and browse through service provider listings based on location, service type, availability, and ratings. Homeowners can select a service provider, check their availability, and schedule appointments using an integrated calendar. Service providers can create detailed profiles, including the types of services they offer, their availability, pricing, and customer ratings. Service providers receive notifications of new bookings and can confirm or reschedule appointments. After service completion, homeowners can rate and provide feedback on the service provider, helping others make informed decisions. Service providers can build their reputation through positive customer reviews. The system is developed as a web-based platform accessible through standard web browsers. Technologies such as HTML, CSS, JavaScript, and a back-end framework are utilized. It uses a robust database system (e.g., MySQL, PostgreSQL) to store user profiles, service listings, booking details, and reviews. It has an embedded chat feature to ensure communication between users and service providers.

3.1 Architecture Diagram

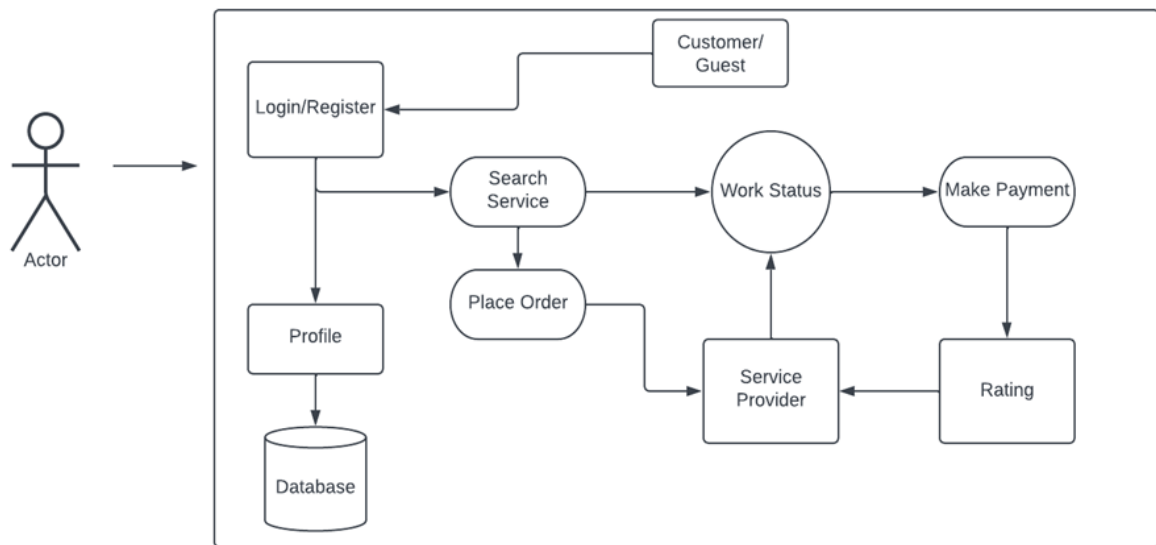


Figure 3.1: Architecture Diagram

3.2 Use case Diagram

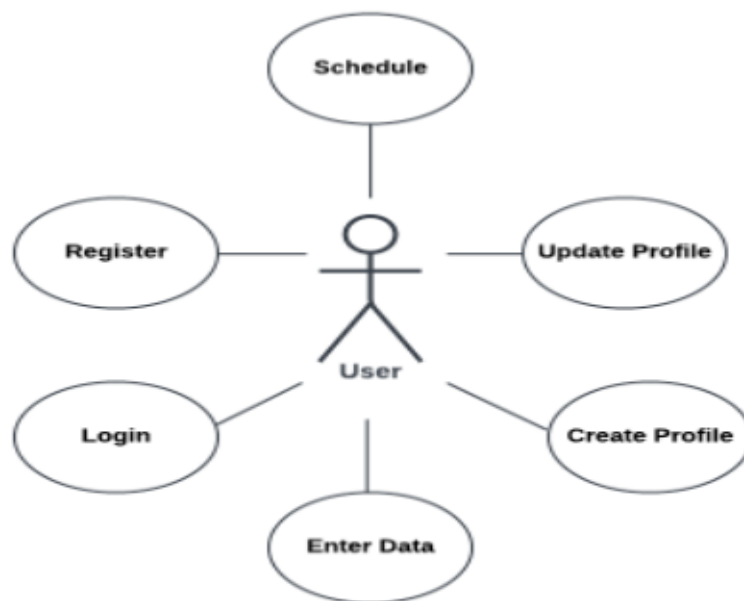


Figure 3.2: Use case diagram

3.3 Data Flow Diagram

3.3.1 Data Flow Diagram - Level 0

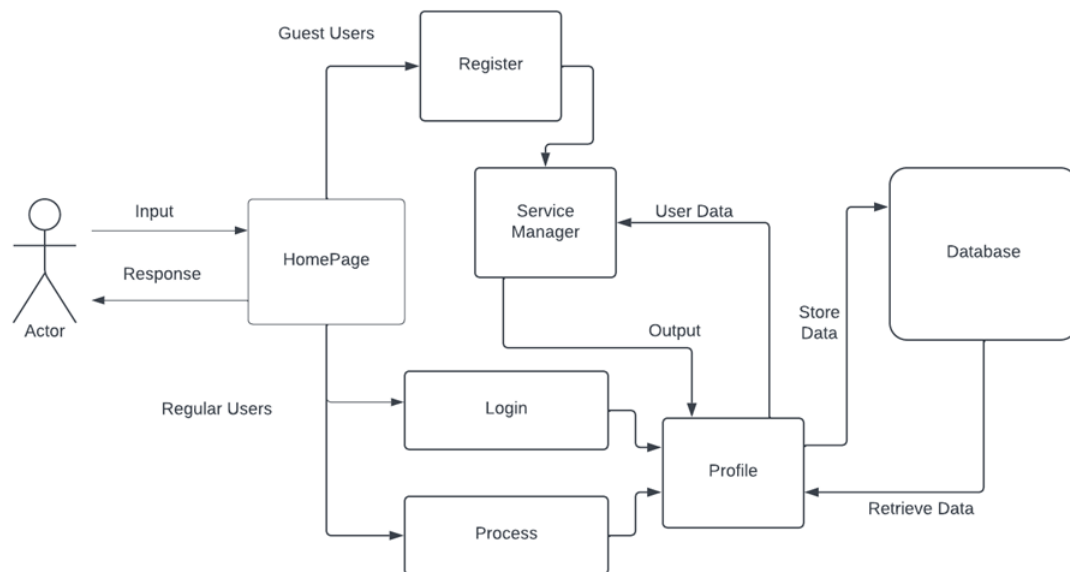


Figure 3.3: Data Flow Diagram Level 0

3.3.2 Data Flow Diagram - Level 1

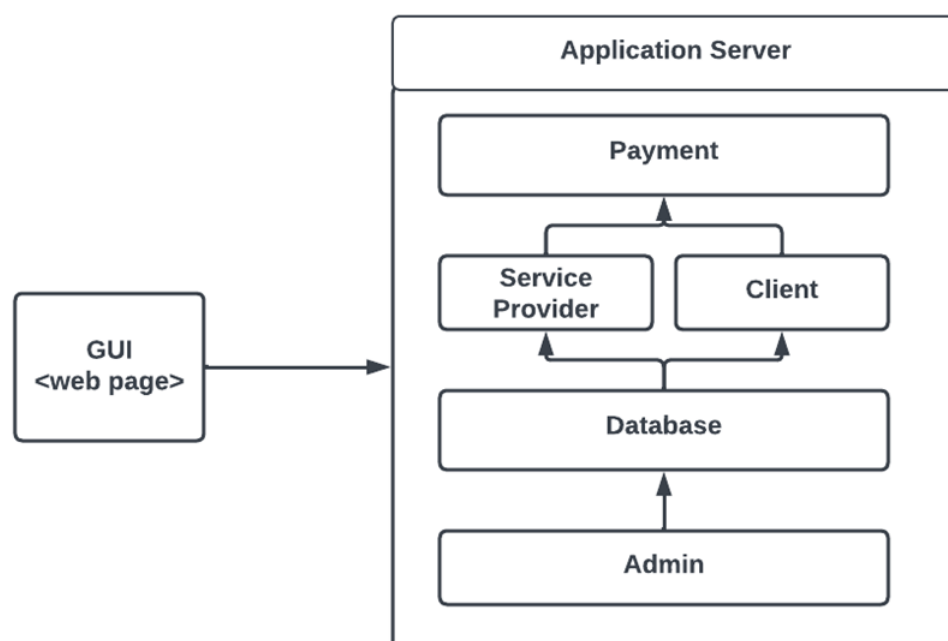


Figure 3.4: Data Flow Diagram Level 1

3.3.3 Data Flow Diagram - Level 2

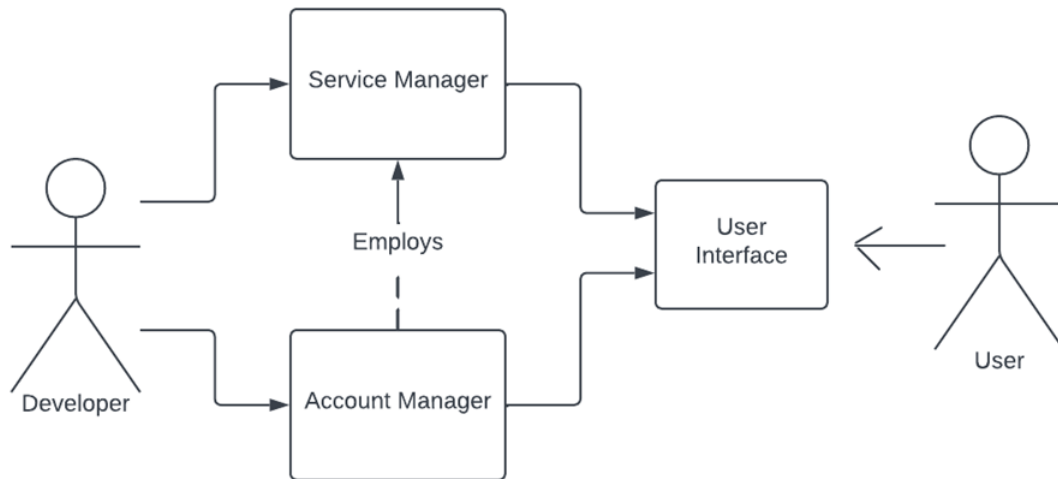


Figure 3.5: Data Flow Diagram Level 2

3.4 Class Diagram

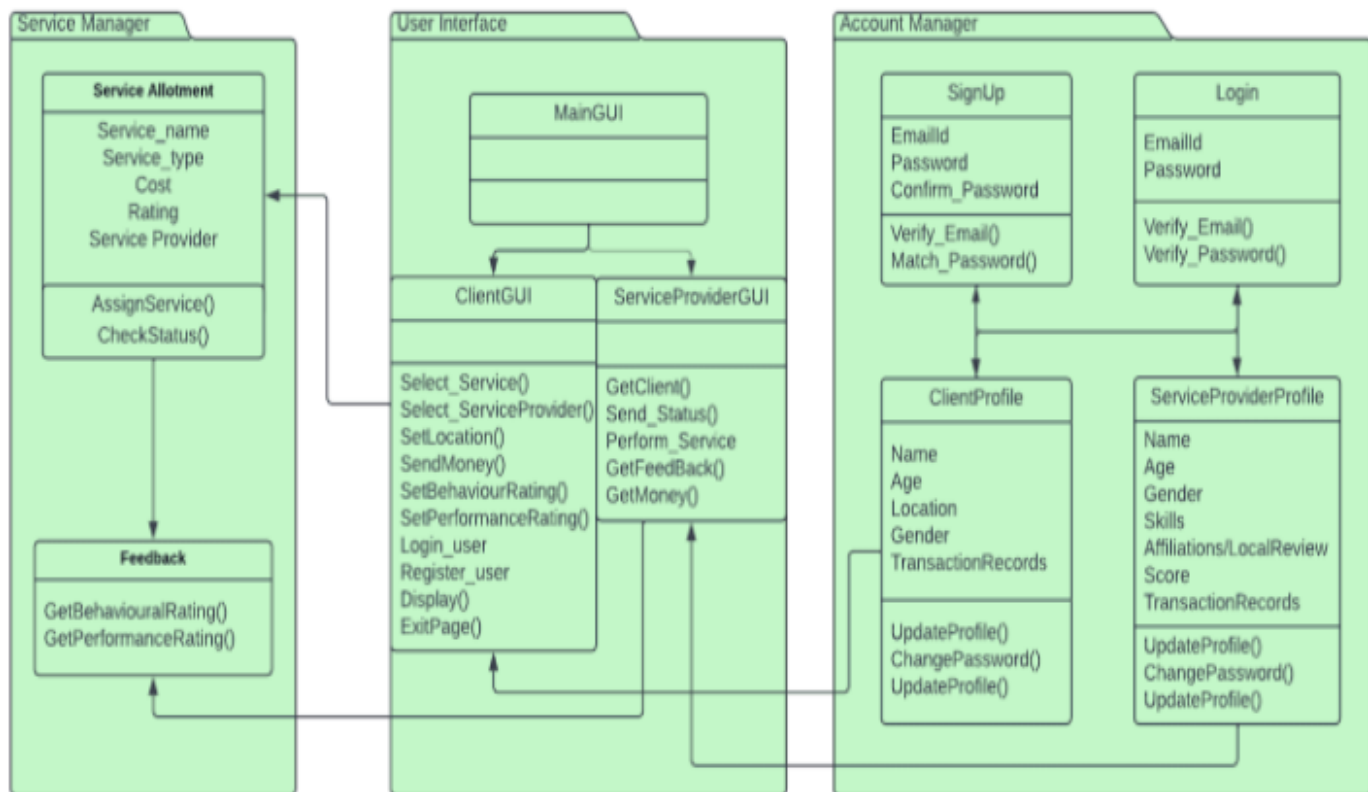


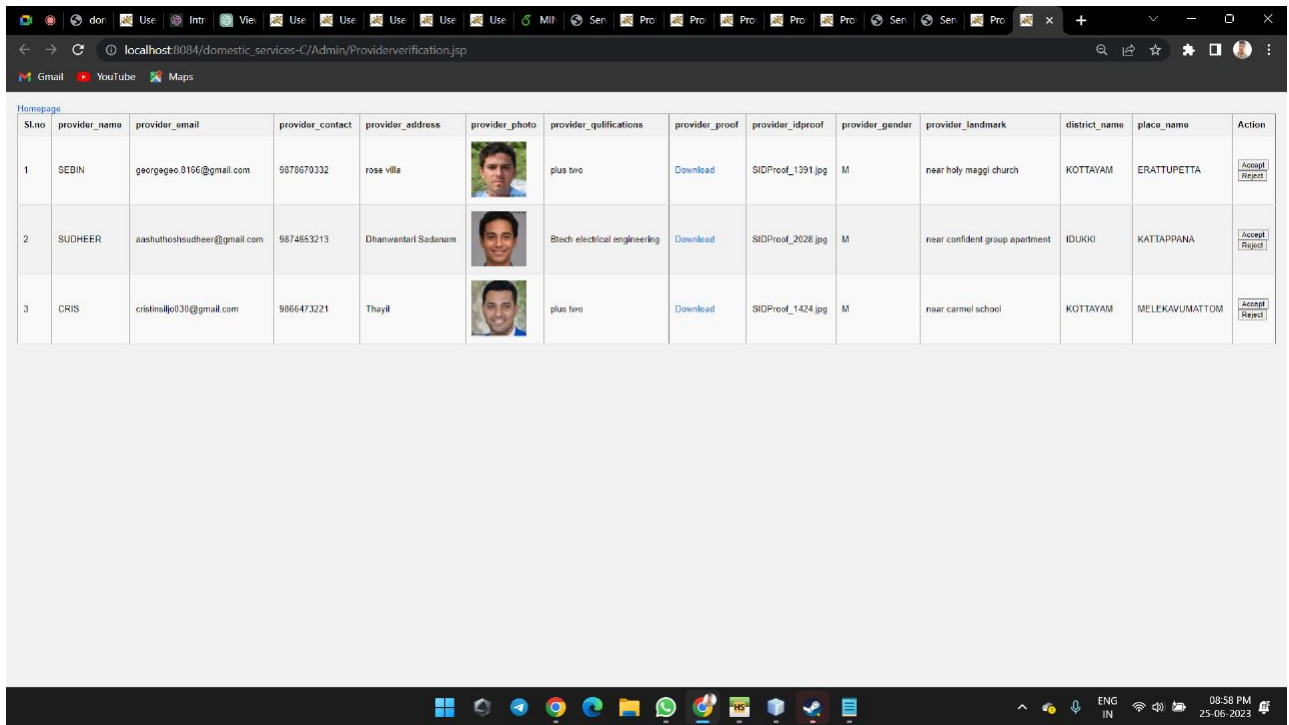
Figure 3.6: Class Diagram

3.5 System Overview

The domestic service system consists of several key modules or processes that help employees manage their tasks and time effectively. The key modules include:

3.5.1 Admin Verification

Admin review the documents and carefully examine the provided documents to ensure they appear genuine and are from reputable sources. Look for any inconsistencies or irregularities that may raise concerns about their authenticity. Verify the information provided on the qualification proofs by conducting an independent investigation. This can include researching the educational institutions, certification bodies, or licensing authorities associated with the qualifications to confirm their legitimacy. After verifying mail will be sent whether the service provider will be accepted or rejected by the admin.



The screenshot shows a web browser window displaying the 'Admin Verification Page'. The page contains a table with the following columns: S.No, provider_name, provider_email, provider_contact, provider_address, provider_photo, provider_qualifications, provider_proof, provider_idproof, provider_gender, provider_landmark, district_name, place_name, and Action. There are three rows of data, each representing a provider. The 'Action' column for each row contains a button labeled 'Accept' or 'Reject'.




S.No	provider_name	provider_email	provider_contact	provider_address	provider_photo	provider_qualifications	provider_proof	provider_idproof	provider_gender	provider_landmark	district_name	place_name	Action
1	SEBIN	georgegeo.016@gmail.com	9878679332	rose villa		plus two	Download	SIDProof_1391.jpg	M	near holy maggi church	KOTTAYAM	ERATTUPETTA	Accept Reject
2	SUDHEER	aashuthoshudheer@gmail.com	9874553213	Dhanwanthi Sadanam		Bioch electrical engineering	Download	SIDProof_2028.jpg	M	near confident group apartment	IDUKKI	KATTAPPANA	Accept Reject
3	CRIS	cristinajl03@gmail.com	9866473221	Thayil		plus two	Download	SIDProof_1424.jpg	M	near carmel school	KOTTAYAM	MELEKAVUMATTOM	Accept Reject

Figure 3.7: Admin Verification Page

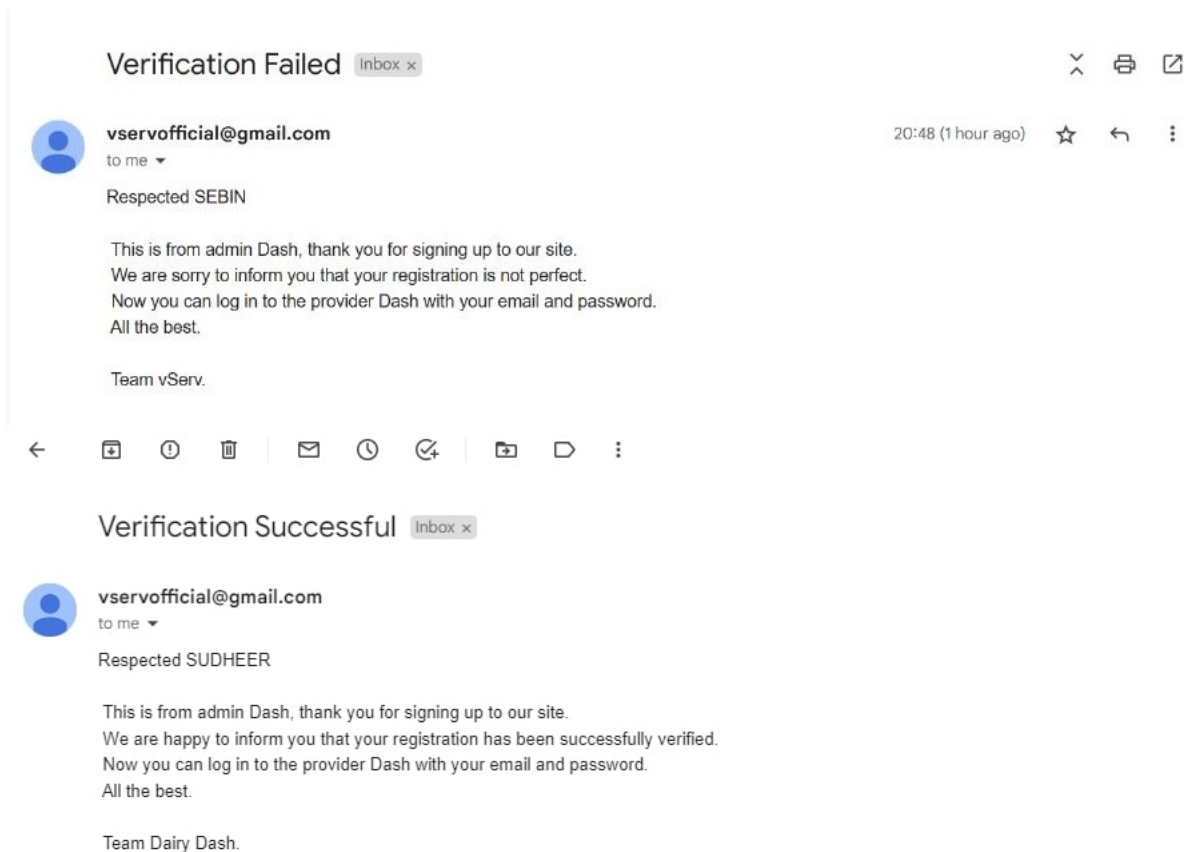


Figure 3.8: Verification Accepted and Rejected

3.5.2 Session Validation for Login and Registration

Session validation is an important aspect of login and registration systems that ensures the security and integrity of user sessions. It involves verifying the authenticity of user sessions to prevent

unauthorized access and protect sensitive user data. Here's a brief explanation of session validation for login and registration:

1. **Login Session Validation:** When a user logs in, session validation is performed to establish a valid session for that user. The process typically involves the following steps: **Authentication**, the user provides their credentials (e.g., username and password) to the login system. **Verification**, the system verifies the provided credentials against stored user data, such as a database of registered users. **Session Creation**, if the credentials are valid, a session is created for the user. The session may include a unique session ID and other relevant user information. **Session Storage**, the session ID, and user data are stored securely, either on the server or in a secure cookie on the client side. **Access Control**, throughout the user's session, the session ID is used to validate their requests. The server checks the session ID with each request to ensure it is associated with an active and authenticated session. **Session Expiration**, sessions often have an expiration time to automatically log out inactive users and prevent session hijacking. The expiration time can be set based on user activity or fixed duration.

2. **Registration Session Validation:** During the registration process, session validation may be employed to ensure the integrity and security of user data. Key steps in this process include **Data Validation**: User-submitted registration data, such as username, password, and other details, is validated to ensure it meets specific requirements (e.g., length, format) and prevent malicious input. **Account Creation**: Upon successful validation and verification, a user account is created and associated with the provided data. **Session Initialization**: Similar to the login process, a session may be created for the newly registered user, allowing them to access restricted areas or perform specific actions within the system.

3.5.3 Search Service Provider

When searching for a service provider in domestic services, there are several key factors to consider. Here's a system overview of the process:

Identify your needs: Determine the specific domestic service you require, such as cleaning, plumbing, electrical work, landscaping, or home repairs. Clearly defining your needs will help you narrow down your search and find the right service provider.

Check reviews and ratings: Look for customer reviews, ratings, and testimonials for the service providers you're considering. Online marketplaces and review websites can provide insights into the experiences of previous customers. Pay attention to overall ratings, comments about reliability and quality of work, and any specific concerns raised by customers.

Contact and communicate: Reach out to the selected service providers to discuss your needs and inquire about their services. Ask about their pricing, availability, warranties or guarantees, and any other relevant details. This communication allows you to assess their responsiveness, professionalism, and how well they understand your requirements.

Compare and make a decision: Evaluate the information gathered from your research, reviews, and conversations with the service providers. Compare their offerings, pricing, reputation, and other factors that are important to you. This will help you make an informed decision and choose the most suitable service provider for your domestic needs.

Schedule and confirm: Once you have chosen a service provider, schedule the service and confirm the details. Discuss the date, time, duration, and any specific instructions or requirements. Clear communication and confirmation ensure that both parties are on the same page before the service is provided.

Provide feedback: After the service has been completed, consider leaving feedback or a review for the service provider. This helps others in their search for domestic services and provides valuable input to the service provider.

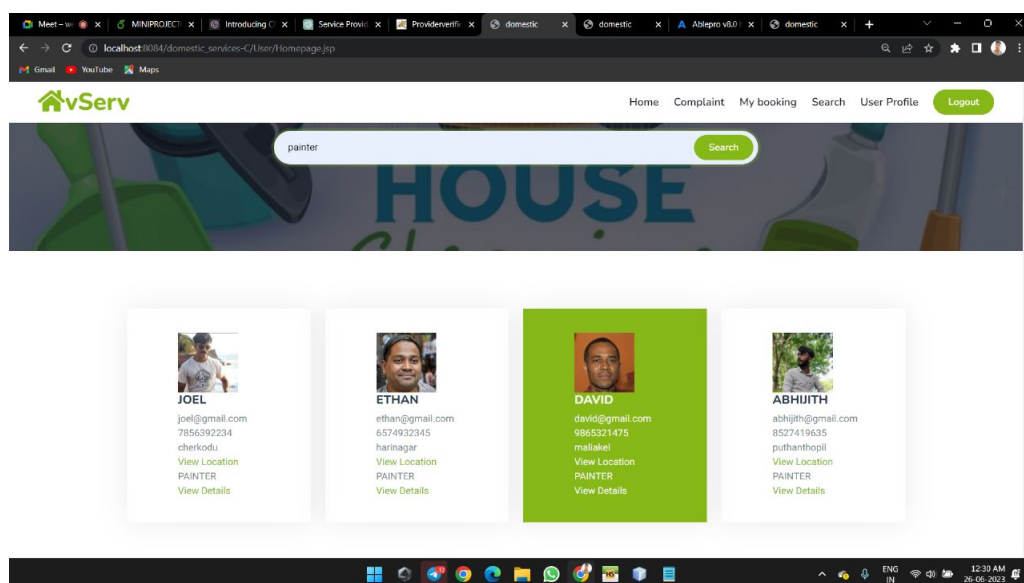


Figure 3.9: Service Provider Search Results

3.5.4 Rating And Feedback

Rating and feedback feature in a domestic services website can be a valuable addition to enhance user experience and help users make informed decisions. Here's how you can incorporate such a feature: **User reviews and ratings:** Allow users to leave reviews and ratings for the service providers they have hired. This feedback can be displayed on the service provider's profile or listing page. Implement a rating system, such as a star rating or a numerical scale, and provide a

text field where users can write their reviews. Overall rating: Calculate an overall rating for each service provider based on the average of all the ratings they have received. This can provide users with a quick overview of a service provider's performance and reputation. Review sorting and filtering: Allow users to sort and filter reviews based on different criteria, such as the most recent, highest rated, or most helpful reviews. This feature enables users to quickly find relevant feedback and make better decisions.

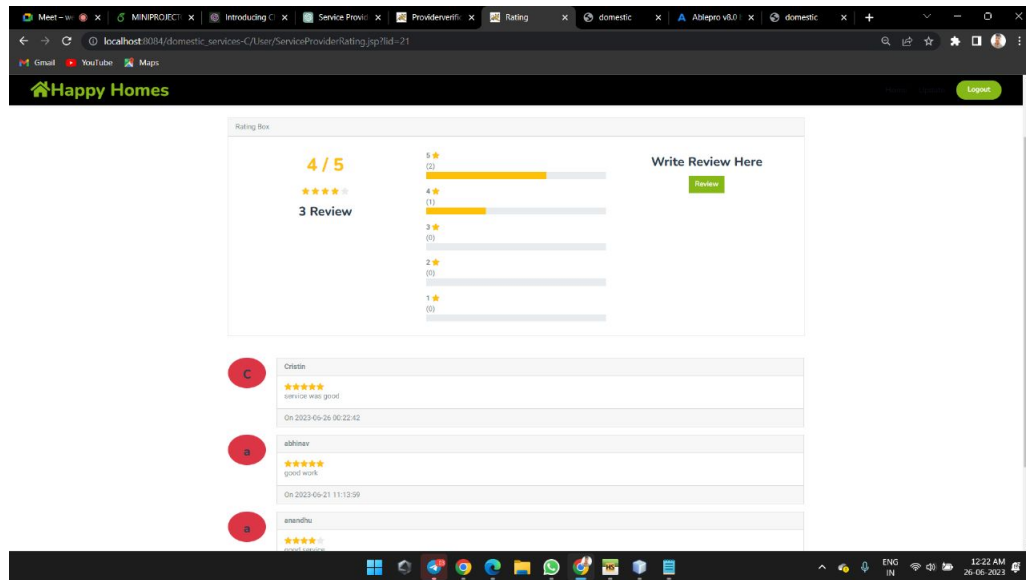


Figure 3.10: Rating

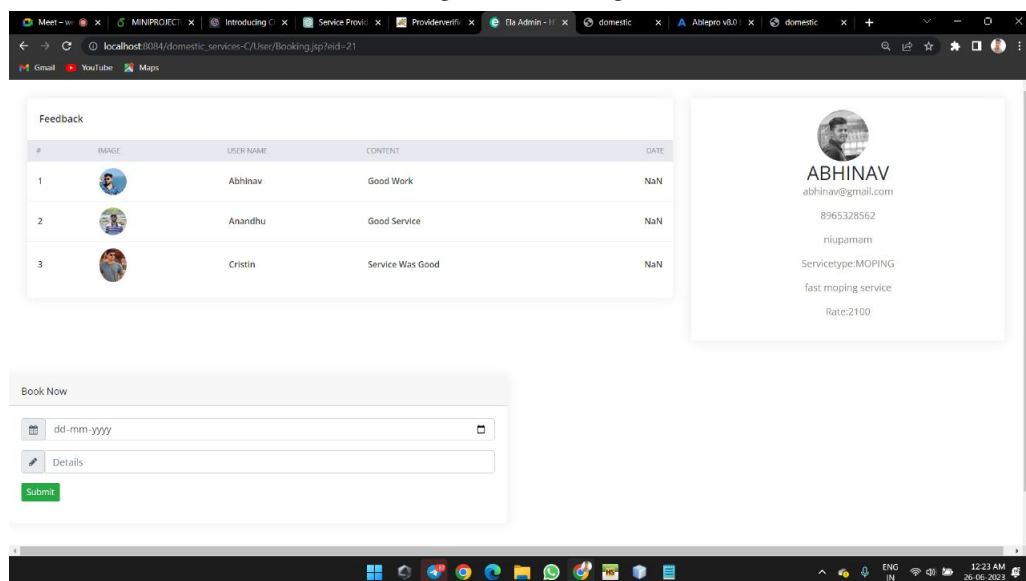


Figure 3.11: Feedback

3.5.5 Booking And Payment

Implementing a booking and payment feature in a domestic services website can streamline the process for users and service providers. Here's how you can incorporate such features: Service selection: Provide a user-friendly interface where users can browse and select the desired service

from a list of available options. Categorize services and provide detailed descriptions, including pricing, duration, and any additional information. Availability calendar: Integrate an availability calendar that allows users to see the service provider's schedule and choose a convenient date and time for the service. Ensure the calendar is up-to-date and reflects real-time availability. Booking form: Create a booking form that captures essential details from users, such as their name, contact information, service preferences, address, and any specific requirements. Make the form intuitive and easy to fill out. Service provider confirmation: Notify the service provider of the booking request and provide them with the necessary details. Enable the service provider to review the request and confirm their availability. Consider implementing a notification system (e.g., email, SMS) to keep both parties informed about the booking status. Cost estimation and pricing transparency: Provide users with an estimated cost for the selected service based on their preferences. Clearly display the pricing structure, including any additional charges or fees. Transparency in pricing helps build trust and avoids confusion during the payment process.

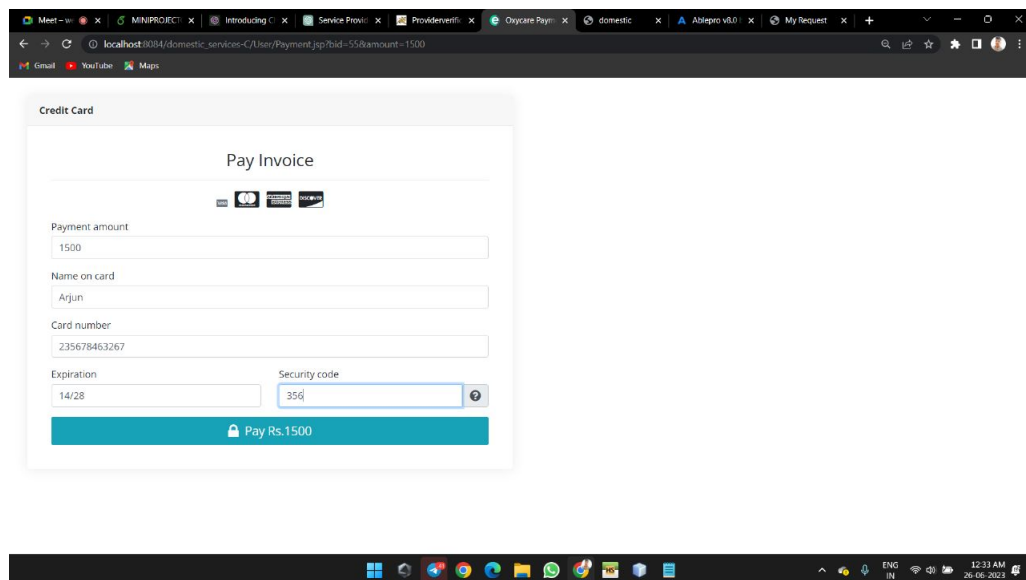


Figure 3.12: Payment

3.5.6 Chat Feature

Chat feature in a domestic services website can greatly enhance communication between users and service providers. Here's how you can incorporate a chat feature: Real-time messaging: Implement a real-time chat system that allows users and service providers to communicate instantly. This can be achieved using technologies such as web sockets or push notifications to ensure messages are delivered promptly. User-friendly interface: Design a user-friendly chat interface that is intuitive and easy to navigate. Provide clear indications of message status (sent, delivered, read) and include features like typing indicators to improve the chat experience. Secure messaging: Pri-

oritize the security and privacy of user conversations. Implement encryption measures to protect messages and ensure that sensitive information shared during conversations remains confidential.

Service provider availability status: Display the availability status of service providers, indicating whether they are online and ready to respond to messages. This helps users determine the best time to initiate a chat conversation.

Push notifications: Enable push notifications for new messages, ensuring that users and service providers receive instant alerts when they receive new chat messages. This feature helps facilitate timely communication even when the users are not active on the website.

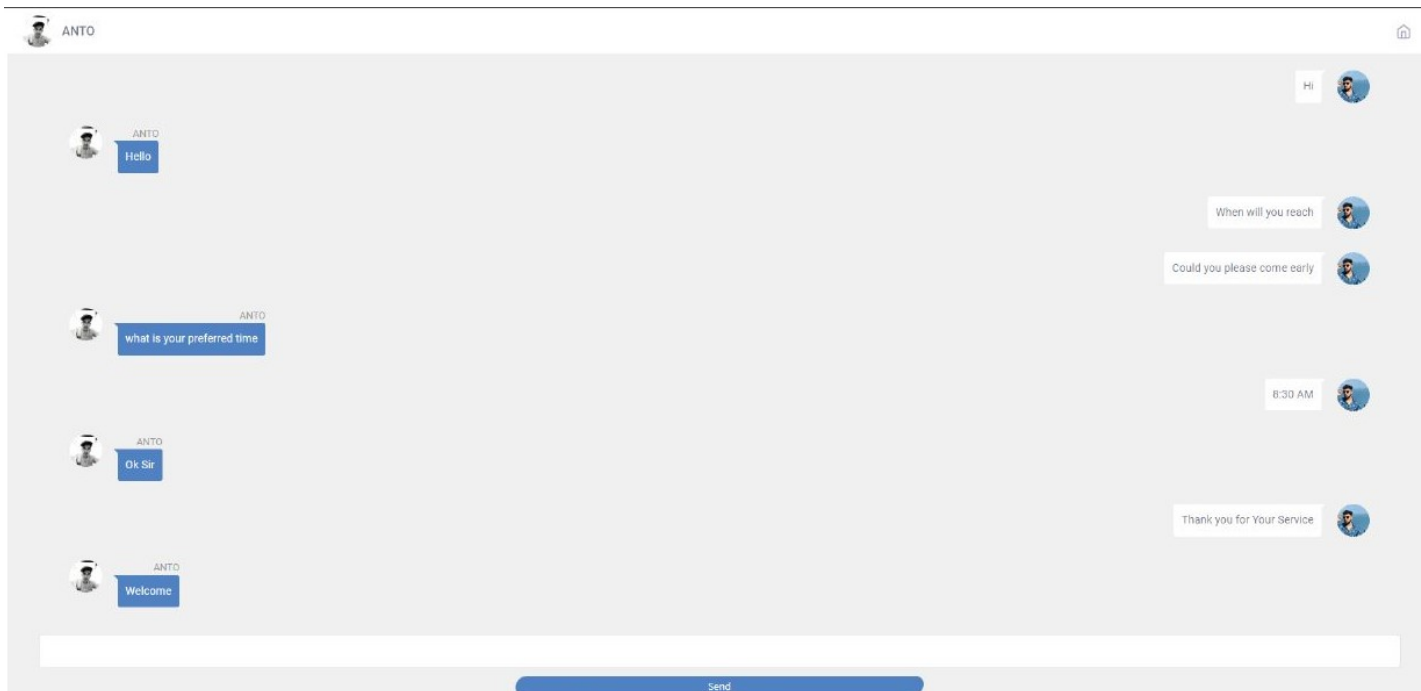


Figure 3.13: Chat between User And Service Provider

3.6 System Requirements

3.6.1 Hardware Requirements

The domestic service system will run on a desktop or laptop computer with a minimum of 4 GB RAM, a storage capacity (HDD or SSD) of at least 250 GB, and an Intel Pentium processor or higher. A Computer or Laptop dedicated internet connection is necessary for the system to run.

3.6.2 Software Requirements

The domestic service system will run on any web browser such as Google Chrome or Mozilla Firefox. It is independent of the operating system used and has tested to work with both Windows (Windows 7 or up) and Linux operating system such as Ubuntu and Fedora. The software system

is built using HTML ,CSS, Javascript and Bootstrap for the frontend. It uses MYSQL for the backend. The database used is HEIDISQL, which is a MySQL based database.

3.6.3 HTML

HTML (Hypertext Markup Language) is a standard markup language used for creating and structuring web pages. As part of the software requirements, HTML plays a crucial role in defining the visual and structural elements of a website or web application. It serves as the backbone for presenting content and establishing the overall user interface (UI) and user experience (UX).

HTML provides a set of tags that define the structure and formatting of web documents. These tags are used to mark up different elements such as headings, paragraphs, images, links, lists, tables, forms, and more. By using a combination of tags and attributes, developers can describe the content and its properties, enabling web browsers to interpret and render the information correctly.

Within the software requirements context, HTML serves as the primary language for front-end development, responsible for the presentation layer of a web-based system. It facilitates the integration of various elements, including text, multimedia, and interactive components, to create a cohesive and visually appealing user interface. The requirements related to HTML often involve ensuring compatibility with different browsers and devices, adhering to web standards, and optimizing for accessibility and responsiveness.

3.6.4 CSS

CSS (Cascading Style Sheets) is a styling language used to describe the presentation and visual appearance of HTML documents. As part of the software requirements, CSS plays a crucial role in defining the aesthetics and layout of web pages or applications. It enables developers to control colors, fonts, spacing, positioning, and other visual properties to create a visually pleasing and consistent user interface (UI).

CSS works in conjunction with HTML, where selectors are used to target specific HTML elements and apply styles to them. By specifying rules and declarations, developers can define how elements should be displayed on different devices and screen sizes. CSS provides a wide range of selectors, properties, and values that allow for precise control over the design and layout of web content.

3.6.5 Bootstrap

Bootstrap is a popular open-source front-end framework used for creating responsive web pages and applications. It is designed to make web development easier and faster by providing a set of pre-built HTML, CSS, and JavaScript components that can be easily customized and combined to

create a variety of user interfaces. Bootstrap is widely used by developers because of its ease of use, flexibility, and responsiveness. It was originally developed by Twitter and is now maintained by a community of developers. Bootstrap includes a wide range of pre-built components such as navigation bars, forms, buttons, and models, among others. These components can be easily customized using CSS classes and JavaScript plugins. Bootstrap also includes a set of utility classes that can be used to style text, spacing, and other elements on a page.

3.6.6 HEIDISQL

HeidiSQL is a popular open-source database management tool that provides a graphical interface for managing and interacting with databases. As part of the software requirements, HeidiSQL can be utilized to streamline database-related tasks, including database design, querying, administration, and maintenance.

3.6.7 EJS - Embedded JavaScript

JavaScript is a high-level, interpreted programming language primarily used for client-side web development. It allows developers to add interactive elements, dynamic content, and behavior to websites. JavaScript can also be used on the server side with the help of platforms like Node.js. JavaScript supports several data types, including numbers, strings, booleans, arrays, objects, and more. It is dynamically typed, meaning you don't need to declare the data type explicitly. Variables can hold different types of values at different times during execution. JavaScript can respond to various events triggered by user actions (e.g., clicks, mouse movements, form submissions) or other interactions. Event handlers are used to define the code that executes when a specific event occurs.

3.6.8 NetBeans IDE

NetBeans is an open-source integrated development environment (IDE) that provides a comprehensive set of tools and features for software development. It supports multiple programming languages, including Java, C/C++, PHP, and HTML/JavaScript. NetBeans offers a user-friendly interface and a wide range of functionalities that make it a popular choice among developers. NetBeans offers efficient project management features, allowing developers to create, organize, and manage projects seamlessly. It provides a logical structure for organizing files, libraries, and dependencies. Developers can easily navigate through project files, track changes, and manage version control systems like Git or Subversion.

3.7 Methodology

The guest can register himself at the website as a user or a service provider using the Sign Up feature. To register, the guest must provide their details depending on the type of user they fall under(i.e. customer and service provider) along with a password. The password is stored in the database and retrieves values from the database to check if passwords match then the user can log in with session validation methods.

The registered users can sign in to their respective dashboards using the Login feature available at the homepage of the web application. Once the user is signed in, they can see the available tasks and their deadlines, modify existing tasks or create new ones. The user can update the profile if needed, book for an existing service schedule it on a particular date with specific details concerning the service. Service Providers can either accept or reject requests from customers depending on their availability to the customer. Before Service Providers get requests they may do essential work after being verified and accepted by admin.

Chapter 4

RESULTS

4.1 Case Study: User experience using VServ

Introduction: Domestic service refers to the employment of individuals who provide a range of services within private households. These services typically include cleaning, cooking, childcare, and other household chores. The dynamics between domestic workers and their employers can significantly influence the functioning of a household and impact the lives of those involved. This case study seeks to delve into the nuances of such dynamics and analyze their implications.

Scenario: Jasmine is a person living in Bright Hedge Apartments who work in a company Ecorp. Due to her hectic work schedule, she is not able to do tasks such as cleaning or repairs in her house. She requires a service provider to do the tasks she can't do due to her schedule. Using Vserv she can appoint a service provider and complete the remaining chores at home. Let Derek be a skilled technician who can help Jasmine do her work and is looking for employment opportunities.

Login/Register and Search Service Provider: Jasmine initially is a guest on the VServ website. She registers a free account under user. Similarly, Derek registers a free account under the service provider portal. After Admin verification, Derek can be availed for service after getting an email for successful verification. Derek can update his current location to show Jasmine where he currently is.

Accepting and Rejecting Request and Chat Feature Jasmine books for service under Derek. Derek depending on the availability of him coming to work can either accept or reject Jasmine's request. Derek accepts the request and now Derek and Jasmine can chat to discuss details of the service, venue and time, etc. Jasmine feels free to express her concerns regarding work to be done in her house.

Rating and Feedback: Derek arrives on time, does the work properly, and leaves Jasmine's house. Jasmine is impressed with the high quality of service and rates Derek 5 stars after paying Derek for

the service. Derek is content with getting a good review, and his work is reflected on the website with remarks given by Jasmine . Potential Users looking at this start booking for Derek.

Conclusion: Vserv has improved and relieved Jasmine's life in controlling household tasks and has given employment opportunities for killed service providers like Derek to display their proficiency of skill in specified work. Trust and Communication are built between User and Service Provider through chat features, rating, and feedback.

Chapter 5

CONCLUSION

In conclusion, a domestic services system offers a convenient and efficient solution for connecting service providers with customers in need of various household services. By leveraging the power of online platforms and mobile applications, such a system streamlines the process of finding, booking, and managing domestic services, benefiting both service providers and customers.

The domestic services system enhances the customer experience by providing a user-friendly interface where they can easily browse through a wide range of services, select preferred service providers based on ratings and reviews, and schedule appointments at their convenience. The system simplifies the booking process, eliminates the need for time-consuming phone calls or inquiries, and offers transparency regarding service availability, pricing, and scheduling.

For service providers, the system offers increased visibility and access to a broader customer base. It provides a platform to showcase their skills, credentials, and availability, allowing them to attract more clients and expand their business. The system automates the appointment management process, reducing administrative tasks and enabling service providers to focus on delivering high-quality services.

Overall, a domestic services system revolutionizes the way household services are accessed and delivered. It simplifies the process, saves time and effort for customers, creates new opportunities for service providers, and contributes to the growth and development of the domestic services industry. By embracing technology and connectivity, this system brings convenience, efficiency, and satisfaction to both service providers and customers in the realm of domestic services.

References

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- [2] An Online System for Household Services N.M Indravasan, Adarsh G, Shanthi K, Dadapeer IJERT NCESC-2018 Conference Proceedings
- [3] An Online System for Home Services by Prachi S Tambe, Nikam Poonam, Gunjal Trupti, Jadhav Priti, Parakhe Sonali - IRJET Volume 6 Issue 12
- [4] Doorstep Home Services by Swati Gurav, Shaikh Aswad, Khan Safiullah, Nagrale Mansi - Journal of Emerging Technologies and Innovative Research (JETIR) May 2021 , Volume 8 , Issue 5

Appendix A

Example Code

A.1 Service Provider Registration

```
<%@page import="java.sql.ResultSet"%>
<jsp:useBean class="DB.ConnectionClass" id="con"></jsp:useBean>
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
    <head>
        <meta http-equiv="Content-Type"
            content="text/html; charset=UTF-8">
        <title>
            Service Provider Registration
        </title>
        <%@include file="Header.jsp" %>
    </head>
    <body>
        <div id="tab" align="center">
            <a href="Homepage.jsp">Homepage</a>
            <p>
                <h1 align="center">
                    Service Provider Registration
                </h1>
            </p>
            <form method="post"
                enctype="multipart/form-data">
```



```
action="
../Assets/ActionPages/ServiceProviderAction.jsp">
    <table align="center" >
        <tr >
            <td
                style="color: black;
                background-color: #dfdfff " >
                <b> Name</b>
            </td>
            <td style="color: black;
                background-color: #dfdfff ">
                <input type="text"
                name="txt_nm"
                placeholder="Enter name"
                style="border-radius: 50px">
            </td>
        </tr>
        <tr>
            <td style="color: black;
                background-color: #dfdfff " >
                <b>Email</b>
            </td>
            <td style="color: black;
                background-color: #dfdfff ">
                <input type="text"
                name="txt_email"
                placeholder="Enter Email"
                style="border-radius: 50px">
            </td>
        </tr>
        <tr>
            <td
                style="color: black;
                background-color: #dfdfff ">
                <b>Contact</b>
```

```
</td>
<td style="color: black;
background-color: #dfdfff ">
<input type="text"
name="contact_no"
placeholder="Enter Contact"
style="border-radius: 50px">
</td>
</tr>
<tr>
<td style="color: black;
background-color: #dfdfff ">
<b>Service Type</b>
</td>
<td
style="color: black;
background-color: #dfdfff ">
<select name="service type"
style="border-radius: 50px">
<%
String servedit="";
String selQryy =
"select * from
tbl_servicetype";
ResultSet rsser = con.selectCommand(selQryy);
while (rsser.next()) {
%>
<option value="
<%=
rsser.getString("servicetype_id")%>"
<%
if(rsser.getString
("servicetype_id").equals
(servedit))
out.print("selected")
; %>>
```

```
        <%=rsser.getString
        ("servicetype_type")
        %>
    </option>
        <%
        }
        %>
    </select>
</td>

</tr>
<tr>
    <td
        style="color: black;
        background-color: #dfdfff ">
        <b>Qualifications</b>
    </td>
    <td
        style="color: black;
        background-color: #dfdfff ">
        <textarea name="addrs"
        row="10" cols="20"
        style="border-radius: 50px">
        </textarea>
    </td>
</tr>
<tr>
    <td style="color: black;
        background-color: #dfdfff ">
        <b>Qualification Proof</b>
    </td>
    <td style="color: black;
        background-color: #dfdfff ">
        <input type="file"
        name="qualproof">
    </td>
```

```
</tr>
<tr>
  <td
    style="color: black;
    background-color: #dfdfff ">
    <b>Address</b>
  </td>
  <td style="color: black;
    background-color: #dfdfff ">
    <textarea name="addrs"
      row="5" cols="20"
      style="border-radius: 50px">
    </textarea>
  </td>
</tr>
<tr>
  <td
    style="color: black;
    background-color: #dfdfff ">
    <b>Landmark</b>
  </td>
  <td style="color: black;
    background-color: #dfdfff ">
    <textarea name="addrs"
      row="5" cols="20"
      style="border-radius: 50px">
    </textarea>
  </td>
</tr>
<tr>
  <td style="color: black;
    background-color: #dfdfff ">
    <b>Gender<b></td>
  <td style="color: black;
    background-color: #dfdfff ">
    <input type="radio"
```

```
name="gender"
value="M">Male
<input type="radio"
name="gender"
value="F">Female
</td>

</tr>
<tr>
<td style="color: black;
background-color:

#dfdfff "><b>District</td>
<td style="color: black;
background-color: #dfdfff ">
<select name="District" onchange="getplace(this.value)"
style="border-radius: 50px">
    <%
        String disedit="";
        String selQry =
        "select * from
        tbl_district";
        ResultSet rsdis = con.selectCommand(selQry);
        while (rsdis.next()) {
    %>
    <option value="<%=
rsdis.getString
("district_id")%>" <%if(rsdis.getString
("district_id").equals(disedit)) out.print
("selected");%>>
    <%=rsdis.getString
("district_name")%>
    </option>
    <%
        }
    }
```

```
                %>

            </select>
        </td>

</tr>
<tr>
    <td style="color: black;
background-color: #dfdfff ">
        <b>Place<b>
    </td>
    <td style="color: black;
background-color: #dfdfff ">
        <select name="Place" id="place" style="border-radius: 50px">
            <%
                String place="";
                String selQryplace =
                "select * from tbl_place";
                ResultSet rsplace = con.selectCommand(selQryplace);
                while (rsplace.next())
                {
            %>
            <option value=
            "<%=rsplace.getString
            ("place_id")%>" <%
            if(rsplace.getString
            ("place_id").equals(place)) out.print("selected");
            %>>
            <%=rsplace.getString
            ("place_name")
            %>
            </option>
            <%
                }
            %>
        </select>
```

</td>

</tr>

<tr>

<td
style="color: black;
background-color: #dfdfff ">
Photo
</td>

<td align="right"
style="color: black;
background-color: #dfdfff ">
<input type="file"
name="photoupload"
value="Choose file">

</td>

</tr>

<tr>

<td style="color: black;
background-color: #dfdfff ">
Password
</td>
<td style="color: black;
background-color: #dfdfff ">
<input type="password"
name="pass"
style="border-radius: 50px">
</td>

```
</tr>
<tr>
  <td style="color: black;
background-color: #dfdfff ">
    <b>Confirm Password</b>
  </td>
  <td style="color: black;
background-color: #dfdfff ">
    <input type="password" name="pass" style="border-radius: 50px">
  </td>

</tr>
<tr>
  <td style="color: black;
background-color: #dfdfff ">
    <b>ID Proof</b>
  </td>
  <td
style="color: black;
background-color: #dfdfff ">
    <input type="file" name="proof">
  </td>
</tr>
<tr>
  <td style="color: black;
background-color: #dfdfff ">
    <b>Provider Details</b>
  </td>
  <td style="color: black;
background-color: #dfdfff ">
    <textarea name="detail"
row="5" column="10"
style="border-radius: 50px">
    </textarea></td>
</tr>
<tr>
```



```
<td style="color: black;
background-color: #dfdfff"
colspan="2"
align="center">
    <input type="submit"
    name="accept"
    value="Submit"
    style="border-radius: 20px;">
    <input type="reset"
    name="reject"
    value="Cancel"
    style="border-radius: 20px">

</td>
</tr>

</table>

</form>
</div>
</body>
</html>
<script src="../../Assets/JQ/jquery.js">
</script>

<script>
    function getplace(did)
    {
        $.ajax({url:"
        ../../Assets/AjaxPages/Ajaxplace.jsp?did=" + did,
        success: function(result){
            $("#place").html(result);
        }
    })
}
```

```
</script>
<%@include file="Footer.jsp" %>
```

A.2 User Registration

```
<jsp:useBean class="DB.ConnectionClass" id="con"></jsp:useBean>
<%@page import="java.sql.ResultSet"%>
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
        <title>Registration</title>
        <%@include file="Header.jsp" %>
    </head>
    <body>
        <div id="tab" align="center">

            <p><h1 align="center">User Details</h1></p>
            <form method="post" enctype="multipart/form-data"
            action=
            "../Assets/ActionPages/UserAction.jsp">
                <table border="3" align="center">

                    <tr>
                        <td style="color: black">
                            <b>Photo</b>
                        </td>

                        <td align="right">
                            <input type="file"
                                name="photoup"
                                value="Choose file">
                        </td>
                    </tr>
                </table>
            </form>
        </div>
    </body>
</html>
```

```
</tr>
```

```
<tr>
```

```
  <td style="color: black">
```

```
    <b>Address</b>
```

```
  </td>
```

```
  <td >
```

```
    <textarea
```

```
      name="addrs"
```

```
      row="5" cols="20"
```

```
      style="border-radius: 20px">
```

```
    </textarea>
```

```
  </td>
```

```
</tr>
```

```
<tr>
```

```
  <td style="color: black">
```

```
    <b>Gender</b>
```

```
  </td>
```

```
  <td>
```

```
    <input type="radio"
```

```
      name="gender"
```

```
      value="M" >Male
```

```
    <input type="radio"
```

```
      name="gender"
```

```
      value="F">Female
```

```
  </td>
```

```
  <tr>
```

```
    <td
```

```
      style="color: black">
```

```
        <b>Landmark</b>
```

```
      </td>
```

```
  <td>
```

```
        <input type="text"
            name="land"
            style="border-radius: 20px">
    </td>

</tr>
</tr>

<tr>
    <td colspan="2"
        align="center">
        <input type="submit"
            name="accept"
            value="Submit"
            style="border-radius: 10px">
        <input type="reset"
            name="reject"
            value="Cancel"
            style="border-radius: 10px">

    </td>
</tr>

</table>

</form>
</div>
</body>
</html>
<script src=
"../Assets/JQ/jquery.js"></script>
    <script>
        function getplace(did)
        {
```

```
$.ajax({url:
    "../Assets/AjaxPages/Ajaxplace.jsp?did=" + did,
    success: function(result)
    {
        $("#place").html(result);
    }
    })
}
```

</script>

<%@include file="Footer.jsp" %>

A.3 Rating And Feedback

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<%@page import="java.sql.ResultSet"%>
<jsp:useBean class="DB.ConnectionClass" id="con"></jsp:useBean>

<!DOCTYPE html>
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
        <title> Rating</title>

        <script>

        </script>
        <style>
            .star-light
            {
                color:#e9ecef;
            }
        </style>

        <script src="https://code.jquery.com/jquery-3.6.0.min.js"
            integrity="sha256-/xUj+30JU5yExlq6GSYGS7tPXikynS7ogEvDej/m4="
```

```

crossorigin="anonymous"></script>

</head>

<body>
<%@include file="Header.jsp" %>
    <div class="container">
        <h1 class="mt-5 mb-5"></h1>
        <div class="card">
            <div class="card-header">Rating Box</div>
            <div class="card-body">
                <div class="row">
                    <div class="col-sm-4 text-center">
                        <h1 class="text-warning mt-4 mb-4">
                            <b><span id="average_rating">0.0</span> / 5</b>
                        </h1>
                        <div class="mb-3">
                            <i class="fas fa-star star-light mr-

1 main_star"></i>
                            <i class="fas fa-star star-light mr-

1 main_star"></i>
                            <i class="fas fa-star star-light mr-

1 main_star"></i>
                            <i class="fas fa-star star-light mr-

1 main_star"></i>
                            <i class="fas fa-star star-light mr-

1 main_star"></i>
                        </div>
                        <h3><span id="total_review">0</span> Review</h3>
                    </div>
                    <div class="col-sm-4">
                        <p>
                            <div class="progress-label-left">

```

5 <i class="fas fa-star text-

warning"></i></div>

<div class="progress-label-right">

(<span

id="total_five_star_review">0)

</div>

<div class="progress">

<div class="progress-bar bg-

warning" role="progressbar" aria-

valuenow="0" aria-valuemin="0"

aria-valuemax="100" id="five_star_progress">

</div>

</div>

</p>

<p>

<div class="progress-label-left">

4 <i class="fas fa-star text-

warning"></i></div>

<div class="progress-label-right">

(0)

```
</div>
<div class="progress">

    <div class="progress-bar bg-

warning" role="progressbar" aria-

valuenow="0" aria-valuemin="0"

aria-valuemax="100" id="four_star_progress">
</div>

</div>
</p>
<p>
<div class="progress-label-left">

<b>3</b> <i class="fas fa-star text-

warning"></i></div>

<div class="progress-label-right">

(<span id="total_three_star_review">0</span>

)</div>
<div class="progress">

    <div class="progress-bar bg-

warning" role="progressbar" aria-

valuenow="0" aria-valuemin="0"

aria-valuemax="100"
```



```
        id="three_star_progress">

        </div>
    </div>
</p>
<p>
<div class="progress-label-left">

    <b>2</b> <i class="fas fa-star text-

warning"></i></div>

<div class="progress-label-right">

    (<span id="total_two_star_review">0</span>)

</div>
<div class="progress">

    <div class="progress-bar bg-

warning" role="progressbar" aria-

valuenow="0" aria-valuemin="0"

aria-valuemax="100"

    id="two_star_progress">
    </div>

</div>
</p>
<p>
<div class="progress-label-left">

    <b>1</b>
```

```
<i class="fas fa-star text-warning">

</i></div>

<div class="progress-label-right">

(<span id="total_one_star_review">0</span>)

</div>
<div class="progress">

    <div class="progress-bar bg-

warning" role="progressbar" aria-

valuenow="0" aria-valuemin="0"

aria-valuemax="100"

id="one_star_progress">

</div>

</div>
</p>
</div>
<div class="col-sm-4 text-center">

<h3 class="mt-4 mb-3">Write Review

Here</h3>
<button type="button"

name="add_review" id="add_review"

class="btn btn-
```

```

        primary">Review</button>

    </div>

</div>

</div>

</div>

<div class="mt-5"
id="review_content">

</div>

</div>

<!-- Pop Up menu-->
<div id="review_modal"
class="modal" tabindex="-1" role="dialog">

<div class="modal-dialog" role="document">
    <div class="modal-content">
        <div class="modal-header">
            <h5 class="modal-title">
                Submit Review</h5>
            <button type="button"
                class="close"
                data-dismiss="modal"
                aria-label="Close"
                onclick="close()">
                <span aria-hidden="true">
                    &times;</span>
            </button>
        </div>
        <div class="modal-body">
            <h4 class="text-center mt-2 mb-4">

                <i class="fas fa-star star-light submit_star mr-

                    1" id="submit_star_1" data-rating="1"></i>

                <i class="fas fa-star star-light submit_star mr-

```

```
1" id="submit_star_2" data-rating="2"></i>
<i class="fas fa-star star-light submit_star mr-

1" id="submit_star_3" data-rating="3"></i>
<i class="fas fa-star star-light submit_star mr-

1" id="submit_star_4" data-rating="4"></i>
<i class="fas fa-star star-light submit_star mr-

1" id="submit_star_5" data-rating="5"></i>
</h4>
<div class="form-group">
    <input type="text" name="user_name"

    id="user_name" class="form-control"

    placeholder="Enter Your Name" />

    <input type="hidden" name="txt_inid"

    id="txt_lid" value="<%=request.getParameter("lid")%>" />

</div>
<div class="form-group">
    <textarea name="user_review"

    id="user_review" class="form-control"

    placeholder="Type Review Here"></textarea>

</div>
<div class="form-group text-center mt-4">

    <button type="button" class="btn btn-

    primary" id="save_review">Submit</button>
```

```
</div>
</div>
</div>
</div>
<!--pop up ends-->

<%@include file="Footer.jsp" %>
</body>
<script>

$(document).ready(function() {

    var rating_data = 0;

    $('#add_review').click(function() {

        $('#review_modal').modal('show');

    });

    $(document).on('mouseenter', '.submit_star', function()

    {

        var rating = $(this).data('rating');

        reset_background();

        for (var count = 1; count <= rating; count++)
        {

            $('#submit_star_' + count).addClass('text-warning');

        }

    })

})
```

```
});

function reset_background()
{
    for (var count = 1; count <= 5; count++)
    {

        $('#submit_star_' + count).addClass('star-

        light');

        $('#submit_star_' + count).removeClass('text-

        warning');

    }
}

$(document).on('mouseleave', '.submit_star', function()
{

    reset_background();

    for (var count = 1; count <= rating_data; count++)

    {

        $('#submit_star_' + count).removeClass('star-

        light');

        $('#submit_star_' + count).addClass('text-

        warning');
```

```
    }

    });

$(document).on('click', '.submit_star', function()
{

    rating_data = $(this).data('rating');

});

$('#save_review').click(function() {

    var user_name = $('#user_name').val();

    var user_review = $('#user_review').val();

    var labour_id = $('#txt_lid').val();

    if (user_name == '' || user_review == '')
    {
        alert("Please Fill Both Field");
        return false;
    }
    else
    {
        $.ajax({
            url: "../Assets/AjaxPages/AjaxRating.jsp",

            method: "POST",
            data: {rating_data: rating_data, user_name:

                user_name, user_review: user_review,

                labour_id: labour_id},
```

```
        success: function(data)
        {
            $('#review_modal').modal('hide');

            load_rating_data();
            //$("#review_content").html(data);
            alert(data);
        }
    })
}

});

load_rating_data();

function load_rating_data()
{
    var labour_id = $('#txt_lid').val();

    $.ajax({
        url: "../Assets/AjaxPages/AjaxRating.jsp",

        method: "POST",
        data: {action: 'load_data', lid: labour_id},

        dataType: "JSON",
        success: function(data)
        {
            console.log(data);

            $("#review_content").html(data);

            $('#average_rating').text(data.average_rating
```



```
);  
$('#total_review').text(data.total_review);  
  
var count_star = 0;  
  
$('.main_star').each(function() {  
    count_star++;  
    if (Math.ceil(data.average_rating) >=  
  
        count_star)  
    {  
        $(this).addClass('text-warning');  
  
        $(this).addClass('star-light');  
    }  
});  
  
$('#total_five_star_review').text(data.five_s  
  
tar_review);  
  
$('#total_four_star_review').text(data.four_s  
  
tar_review);  
  
$('#total_three_star_review').text(data.three  
  
_star_review);  
  
$('#total_two_star_review').text(data.two_sta  
  
r_review);  
  
$('#total_one_star_review').text(data.one_sta
```

```
r_review);

$('#five_star_progress').css('width',

(data.five_star_review / data.total_review)

* 100 + '%');

$('#four_star_progress').css('width',

(data.four_star_review / data.total_review)

* 100 + '%');

$('#three_star_progress').css('width',

(data.three_star_review / data.total_review)

* 100 + '%');

$('#two_star_progress').css('width',

(data.two_star_review / data.total_review) *

100 + '%');

$('#one_star_progress').css('width',

(data.one_star_review / data.total_review) *

100 + '%');

if (data.review_data.length > 0)
{
    var html = '';
```

```
for (var count = 0; count <

data.review_data.length; count++)

{
    html += '<div class="row mb-3">';

    html += '<div class="col-sm-1"><div

class="rounded-circle bg-danger text-

white pt-2 pb-2" style="height:4.3em;"><h3

class="text-center" style="margin-

top: 13px;">' + data.review_data[count].user_name.cha

rAt(0) + '</h3></div></div>';

    html += '<div class="col-sm-11">';

    html += '<div class="card">';

    html += '<div class="card-header">

<b>' + data.review_data[count].user_name +

'</b></div>';

    html += '<div class="card-body">';
```

```
for (var star = 1; star <= 5; star++)

{
    var class_name = '';

    if (data.review_data[count].rating

    >= star)
    {
        class_name = 'text-warning';

    }
    else
    {
        class_name = 'star-light';

    }

    html += '<i class="fas fa-star '

    + class_name + ' mr-1"></i>';

}

html += '<br />';

html += data.review_data[count].user_review;

html += '</div>';

html += '<div class="card-footer

text-right">On ' +
```

```
        data.review_data[count].datetime +

        '</div>';

        html += '</div>';

        html += '</div>';

        html += '</div>';
    }

    $('#review_content').html(html);
}

})

}

});

</script>
</html>
```

Appendix B

HeidiSQL Collections

B.1 User Database (Customer Database)

Table B.1: User Database

MYSQL Document	MYSQL Datatype
user_id	Number
user_name	String
user_email	String
user_password	String
user_contact	Number
user_address	String
place_id	Number
user_gender	Number
user_photo	Number
user_landmark	Number
user_password	String

B.2 Admin Database (Manager Database)

Table B.2: Admin Database

MYSQL Document	MYSQL Datatype
admin_id	Number
admin_name	String
admin_email	String
admin_password	String

B.3 ServiceProvider Database

Table B.3: ServiceProvider Database

MYSQL Document	MySQL Datatype
provider_id	Number
provider_name	String
provider_email	String
provider_address	String
provider_contact	String
provider_gender	String
place_id	Number
provider_photo	String
provider_landmark	String
servicetype_id	Number
provider_idproof	String
provider_qualproof	String
provider_vstatus	String
provider_details	String
provider_latitude	String
provider_longitude	String

Table B.4: ServiceType Database

MYSQL Document	MySQL Datatype
servicetype_id	Number
servicetype_type	String

Appendix C

Screenshots

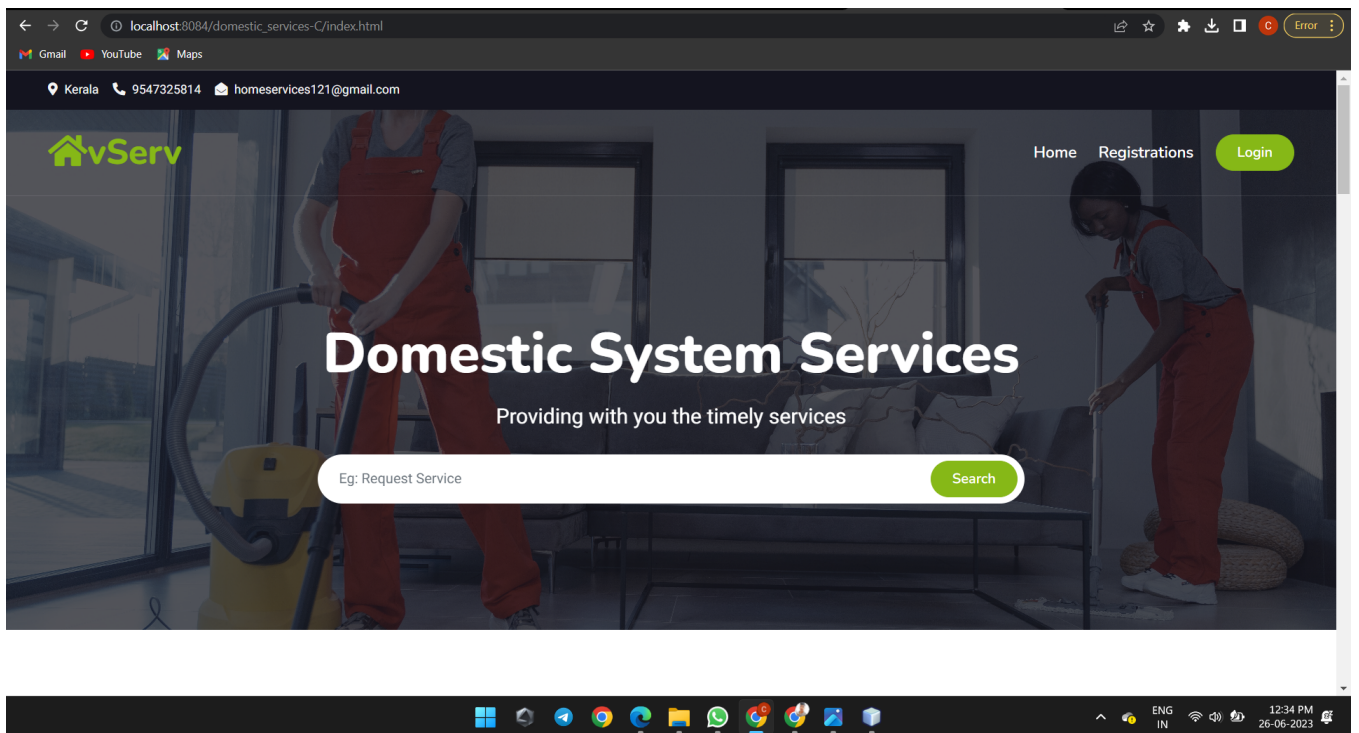


Figure C.1: Home Page

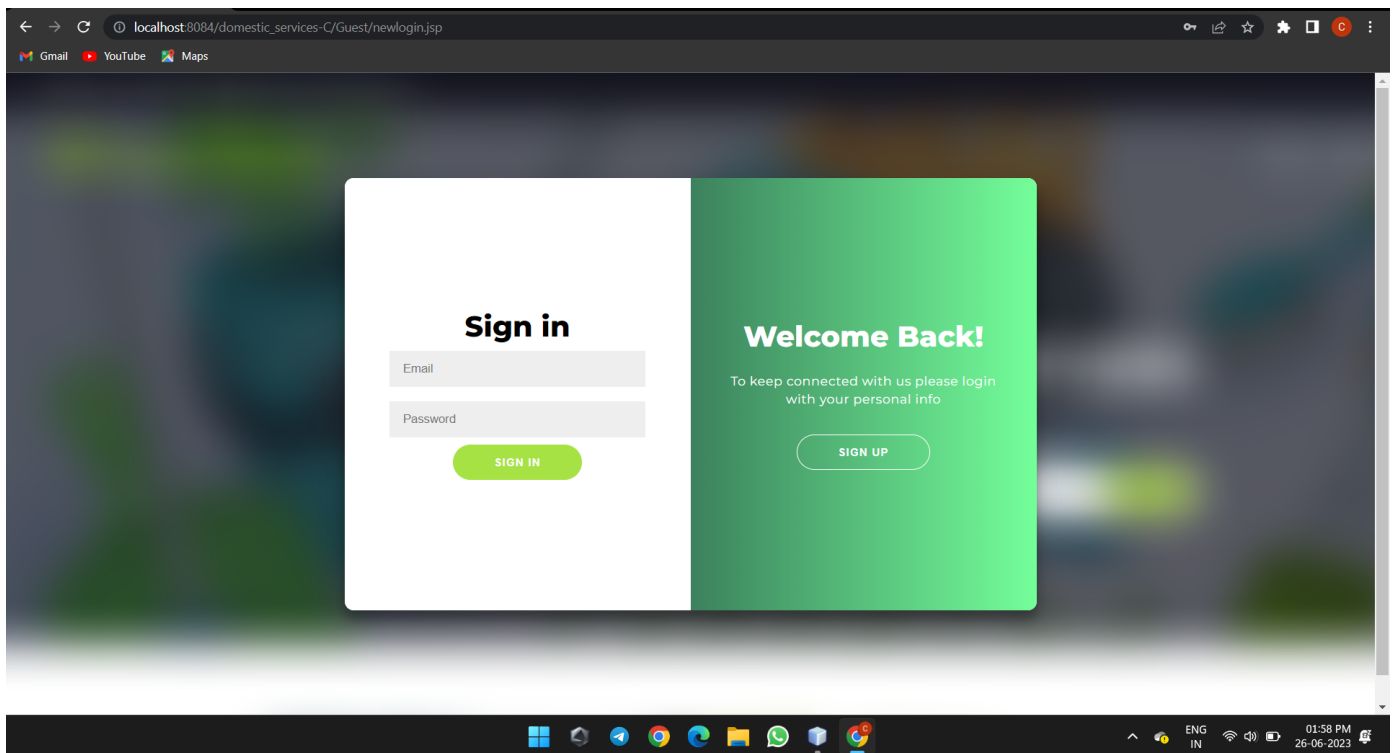


Figure C.2: Login Page

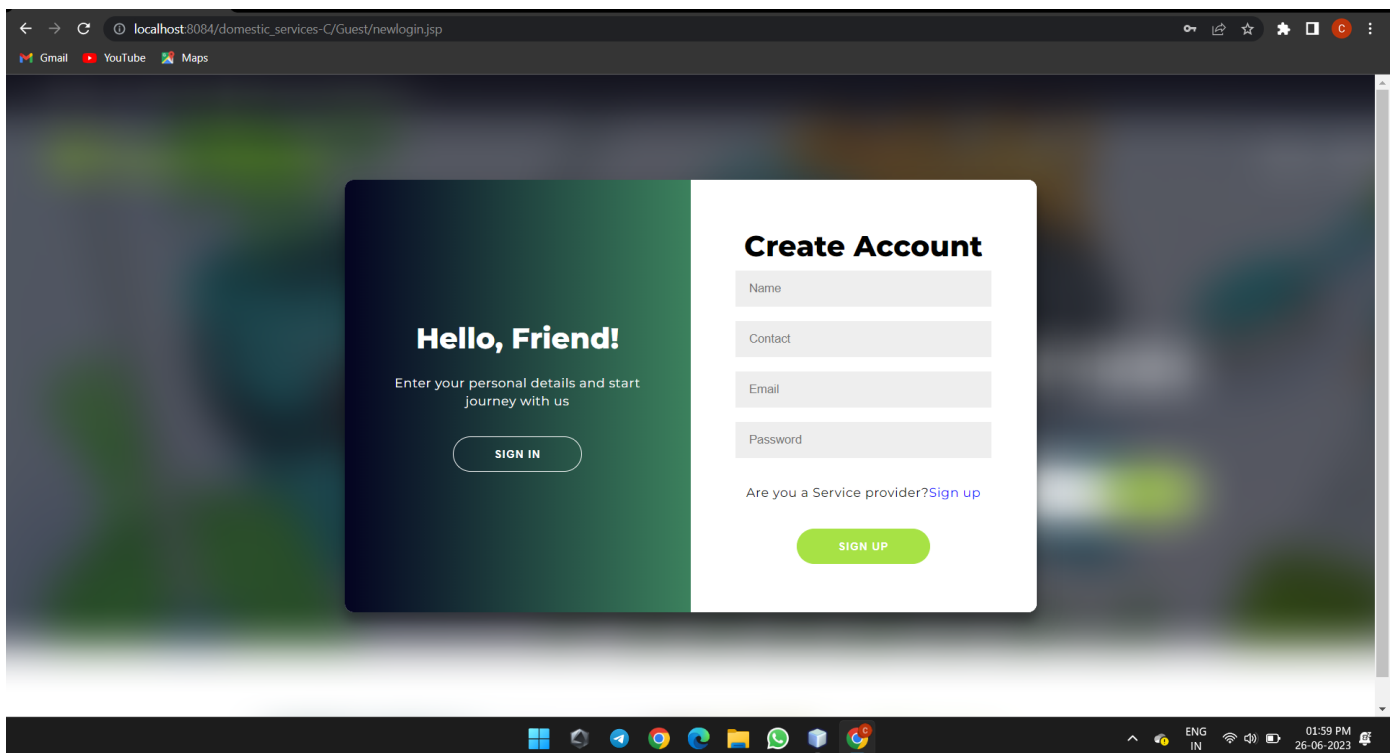


Figure C.3: Sign up Page

Service Provider Registration

Name	<input type="text" value="Enter name"/>
Email	<input type="text" value="Enter Email"/>
Contact	<input type="text" value="Enter Contact"/>
Service Type	<input type="text" value="Plumbing"/> ▼
Qualifications	<input type="text"/>
Qualification Proof	<input type="button" value="Choose File"/> No file chosen
Address	<input type="text"/>
Landmark	<input type="text"/>
Gender	<input type="radio"/> Male <input type="radio"/> Female
District	<input type="text" value="KASARGODE"/> ▼
Place	<input type="text" value="muvattupuzha"/> ▼
Photo	<input type="button" value="Choose File"/> No file chosen
Password	<input type="password"/>
Confirm Password	<input type="password"/>
ID Proof	<input type="button" value="Choose File"/> No file chosen
Provider Details	<input type="text"/>
<input type="button" value="Submit"/> <input type="button" value="Cancel"/>	

Figure C.4: Service Provider Registration

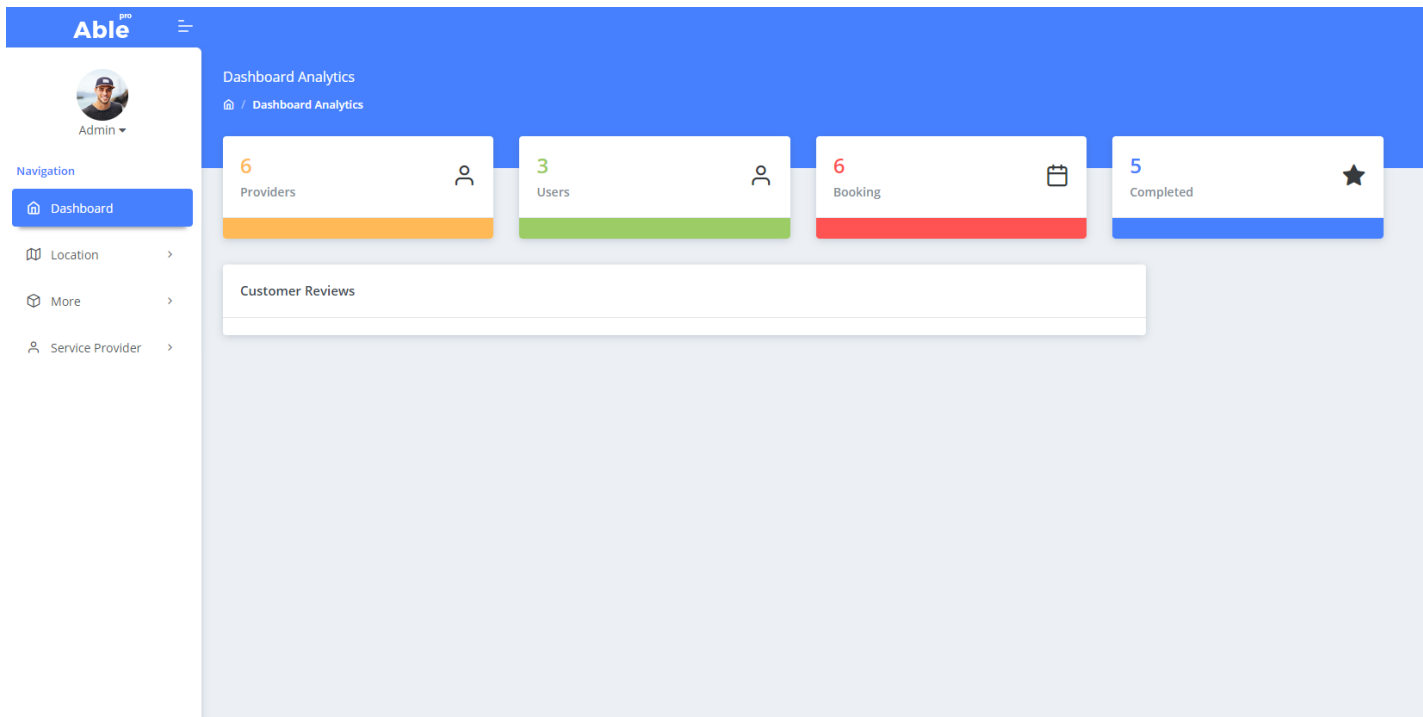


Figure C.5: Admin Dashboard

The 'Customer Complaint Page' is displayed in a browser window at localhost:8084. It features a form for submitting a complaint with fields for 'Title' and 'Complaint Details', and buttons for 'Submit' and 'Cancel'. Below the form is a table of existing complaints.

SNo	Title	Complaint	Date	Reply	Action
1	Bad Service	service is not good, bad quality work	2023-06-26	Not Replied	Delete

Figure C.6: User Complaint

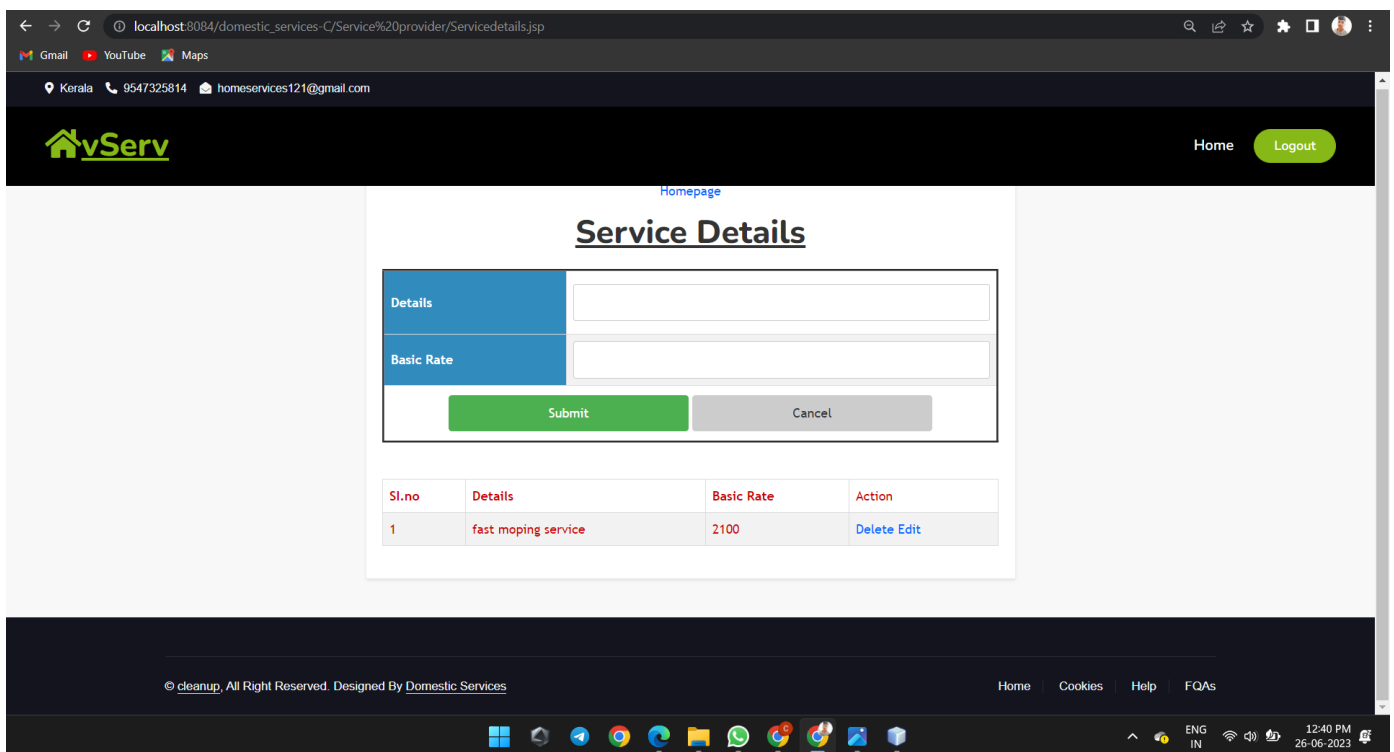


Figure C.7: Rate Setting Of Services