Software Requirements Specification

for

Homecare Connect

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Revision History

Name	Date	Reason For Changes	Version

1. Introduction

1.1 Purpose

The purpose of the "Homecare Connect" project is to streamline and modernize the process of hiring domestic help services, offering a convenient and trustworthy online platform for households to connect with dependable domestic workers, addressing the challenges of finding reliable assistance in today's busy lifestyle. It became a great platform for men and women who are in the search of reliable and convenient jobs.

1.2 Document Conventions

	FONT NAME	FONT SIZE
Heading	Times (Bold)	18
Subheading	Times (Bold)	14
Paragraphs	Arial (Italic)	11

1.3 Intended Audience and Reading Suggestions

This SRS intends to attract multiple types of audience that includes project team, our advisor, our FYP coordinator and many more.
Project team: Vishal Kumar and Rahul Kumar
Advisor: KHALIL UR REHMAN
FYP Coordinator: Sir Adeel karim
Others: FYP evaluators, Users, and testers

This document provides the reader with complete knowledge of the project.

1.4 Product Scope

Homecare Connect is an innovative mobile app designed to simplify the process of finding reliable domestic help services. This user-friendly platform connects households with trusted domestic professionals such as cooks, cleaners, babysitters, and elder caregivers. Users, both households and domestic workers, can effortlessly create and manage their profiles, including personal details, qualifications, and work preferences. Households can post job listings with specific requirements, schedules, and pay rates, while users can search for services based on location, service type, and pricing. The app also facilitates user reviews and ratings, aiding others in making informed decisions. To ensure secure transactions, "Homecare Connect" seamlessly integrates payment gateways, offering a comprehensive solution for hassle-free domestic help services.

1.5 References

i) *https://www.comcare.gov.au/claims/supports-benefits/household-services*
ii) *https://holdmylassi.com/3-online-services-apps-that-provide-domestic-help-in-pakistan/*
iii) *https://kaamwalijobs.com/*
iv) *https://bookmykamwali.com/*
v) *https://www.hindustantimes.com/more-lifestyle/bai-on-call-how-home-service-apps-changing-the-maids-market/story-s6zz6kmWw1aEamZ1yLxjaL.html*

2. Overall Description

2.1 Product Perspective

The product perspective of "Homecare connect" is to address the issue that based in hiring cooks, babysitters, and domestic. It will help to simplify the process of finding and providing homecare services, offering convenience, trust, and efficiency to both service seekers and providers. It can enhance the overall homecare experience by providing a centralized and user-friendly platform. Firebase cross-platform technologies like Flutter, Dart, MongodB, and Firebase, it ensures accessibility on various devices. The team's expertise in relevant technologies and their commitment to continuous learning enhance the project's potential for success. Key milestones include documentation, design, development, testing, and deployment, marking the path towards a transformative platform for skill acquisition and employment.

2.2 Product Functions

A system where workers can connect and manage their profiles in English or Urdu, and securely submit important documents, ensuring the worker's authenticity. Users, on the other hand, can hire workers based on their offered services, availability, and payment terms. Additionally, a chatbot is available for user inquiries.

2.3 User Classes and Characteristics

i. ***User Registration:*** *Users browse through worker profiles available on the platform, filtering results based on their specific requirements, such as type of service needed (e.g., cleaning, cooking), preferred timings, and payment rates. When users find a suitable worker, they can initiate the hiring process by sending a booking request. Users can leave feedback and reviews on the worker's profile.*

ii. ***Admin Dashboard:*** *Administrator will manage user registrations,* listings, view bookings *and address user-reported issues.*

iii. ***Worker:*** *Users create their accounts on the platform, providing essential information such as name, contact details in the preferred language (English or Urdu). Additionally, the chatbot provides support and guidance to workers as they navigate the platform.*

2.4   Operating Environment

The application will be developed using cross-platform technologies such as Flutter and Dart, ensuring accessibility on various devices. The backend of the app will be powered by cloud-based services like Firebase and MongoDB, enabling scalability, real-time data synchronization, and efficient data management. Given the sensitive nature of user data and worker's documents, robust security measures will be implemented to protect user information and maintain data privacy. The app will operate in an online environment. Additionally, it will be scalable to accommodate growth in user and worker numbers.

2.5   Design and Implementation Constraints

i.   **Technical Compatibility:** *Ensuring seamless cross-platform performance is a technical challenge.*

ii. **Data Security:** *Protecting user and worker data and privacy is a critical constraint.*

iii. **Scalability and Performance:** *Handling a growing user base while maintaining fast response times is essential.*

2.6   User Documentation (Worker)

The user should have access to the Internet and a browser to access the website. Navigate the platform by clicking on the provided links and buttons. Basic web navigation skills are required to move through the website. Create their profiles on the platform, upload important documents such as licenses, Police verification certificate and identification, which are securely stored for verification. Keeping profiles up to date ensures that they are discoverable by users looking for specific services.

2.7   Assumptions and Dependencies

These assumptions and dependencies are critical for the successful operation of the "Homecare Connect" platform. Firstly, if users and workers have access to internet connectivity and devices underscores the importance of a digital infrastructure for effective usage. Secondly, the platform's performance and scalability rely on cloud-based services like Firebase and MongoDB, emphasizing the need for reliable and continuously available backend resources. Thirdly, ensuring user data security and regulatory compliance depends on implementing encryption, secure authentication, and privacy policies, demonstrating a commitment to safeguarding sensitive information. These elements collectively form the foundation of a secure, accessible, and scalable platform for users and workers alike.

3. External Interface Requirements

3.1 User Interfaces

Users can sign up or log in to access the platform, providing their basic information and creating an account. Upon logging in, users are presented with a dashboard where they can select the language according to preferences and then can browse and select the worker according to needs. The system offers a platform for workers to establish their profiles, showcase their skills, and connect with potential clients. It ensures reliability through document verification and encourages professionalism through user reviews. Additionally, the chatbot provides support and guidance to workers as they navigate the platform.

3.2 Hardware Interfaces

The hardware interfaces in the "Homecare Connect" system are designed to ensure broad compatibility, allowing users to access the platform on smartphones, tablets, and computers, providing a seamless experience across multiple devices. The server infrastructure, powered by technologies like Firebase and MongoDB, is responsible for managing critical functions such as worker login data, document storage, and job-related activities, ensuring efficient data management and real-time synchronization. A reliable internet connection is imperative for users to access online booking, chat features, and other essential services, making it vital for an uninterrupted user experience. Secure data storage interfaces are implemented to protect the sensitive personal information of both users and workers, ensuring data privacy and adherence to regulatory compliance standards, enhancing overall platform security.

3.3 Software Interfaces

It can be used by a diverse user base across different devices and operating systems if they have access to a web browser and an internet connection. This flexibility makes it a convenient and inclusive solution for users and professional workers seeking job opportunities.

3.4 Communications Interfaces

Users can navigate through the app or website to access features like user registration, service searches, profile management, and communication with workers. A chatbot interface provides an interactive channel for users to ask questions, seek assistance, and receive automated responses. The chatbot can be integrated into the platform's UI, allowing users to communicate with it seamlessly.

4. System Features

4.1 Login

Description and Priority:

Every user must login to get access to the website.

Stimulus/Response Sequences

Step #	Action	Software Reaction
1	*Enter Email and password*	*Account logged in*

Functional Requirements

Alternate Scenarios: *The invalid email or password*
In this scenario where if the user mistakenly enters invalid email address or passwordthen the system will display an error message "Invalid email or password".

4.2 Review and Ratings

Description and Priority:

During the service process users can give reviews and ratings for the worker's performance helping others to make a wise decision in selecting a valid worker and workers can view the response.

Stimulus/Response Sequences

Step #	Action	Software Reaction
1	*Put Reviews*	*Ratings done*

Functional Requirements

Alternate Scenarios: *No review/ negative review*
In this scenario, if the user is not satisfied with the worker, they can either leave a negative review or choose not to leave any review at all.

4.3 Language Selection

Description and Priority:

After login into the system both the user and worker can choose language according to preference.

Stimulus/Response Sequences

Step #	Action	Software Reaction
1	*User or worker select language*	*Dashboard language changed according to the user selection.*

Functional Requirements

Alternate Scenarios: *Language barrier*
In this scenario where user's and worker's preferred language is other than gives like English and Urdu.

4.4 Booking

Description and Priority:

Users will browse the workers and their profile and then book workers based on their experience, rates, and schedule.

Stimulus/Response Sequences

Step #	Action	Software Reaction
1	*User will book a worker*	*Worker will be hired*

Functional Requirements

Alternate Scenarios: *User Postpones Booking Decision*
At this point, the user decides to postpone the booking process temporarily as he or she shortlisted *some other workers.*

4.5   Chat Bot

Description and Priority:

Users can query related system working.

Stimulus/Response Sequences

Step #	Action	Software Reaction
1	User will ask question	Got reply

Functional Requirements

Alternate Scenarios: No response/ Not available
In this scenario where user place any query out of box will not be answered.

4.6   Wallet

Description and Priority:

To use the wallet, users need to add funds to it. They can add money to their wallet using various payment methods available on the platform. The wallet balance is updated to reflect the new balance after the deduction. Users can check their wallet balance at any time through the app.

Stimulus/Response Sequences

Step #	Action	Software Reaction
1	Pay through wallet	Payment done

Functional Requirements

Alternate Scenarios: Transaction error
When a user attempts to pay the worker through their wallet but has insufficient balance, the transaction cannot be completed.

5. Other Nonfunctional Requirements

5.1 Performance Requirements

A platform that is fast and responsive with a short load time and minimal downtime is one that delivers a smooth and efficient user experience. Users can access the platform quickly, interact with it smoothly, and rely on its availability without frequent interruptions. Achieving these characteristics often requires a combination of optimized design, efficient code, and reliable infrastructure.

5.2 Safety Requirements

A strong user authentication system will be in place to verify the identity of users, preventing unauthorized access to the platform and ensuring that only qualified individuals can apply for homecare services.

5.3 Security Requirements

We will implement robust data protection measures to ensure that user data, including personal information and documents, is securely stored and only accessible to authorized personnel.

5.4 Software Quality Attributes

It offers a responsive and user-friendly interface with swift load times and minimal downtime, guaranteeing a seamless experience. Accessibility should be a top priority. Its compatibility spans across various devices and browsers, ensuring accessibility to a wide audience. Moreover, the platform should support multiple languages and regions, catering to a global community of job seekers.

5.5 Business Rules

Users must sign up and complete verification to be eligible for a job on the platform. Workers can only verify and appoint based on their authenticated documents and skillset.
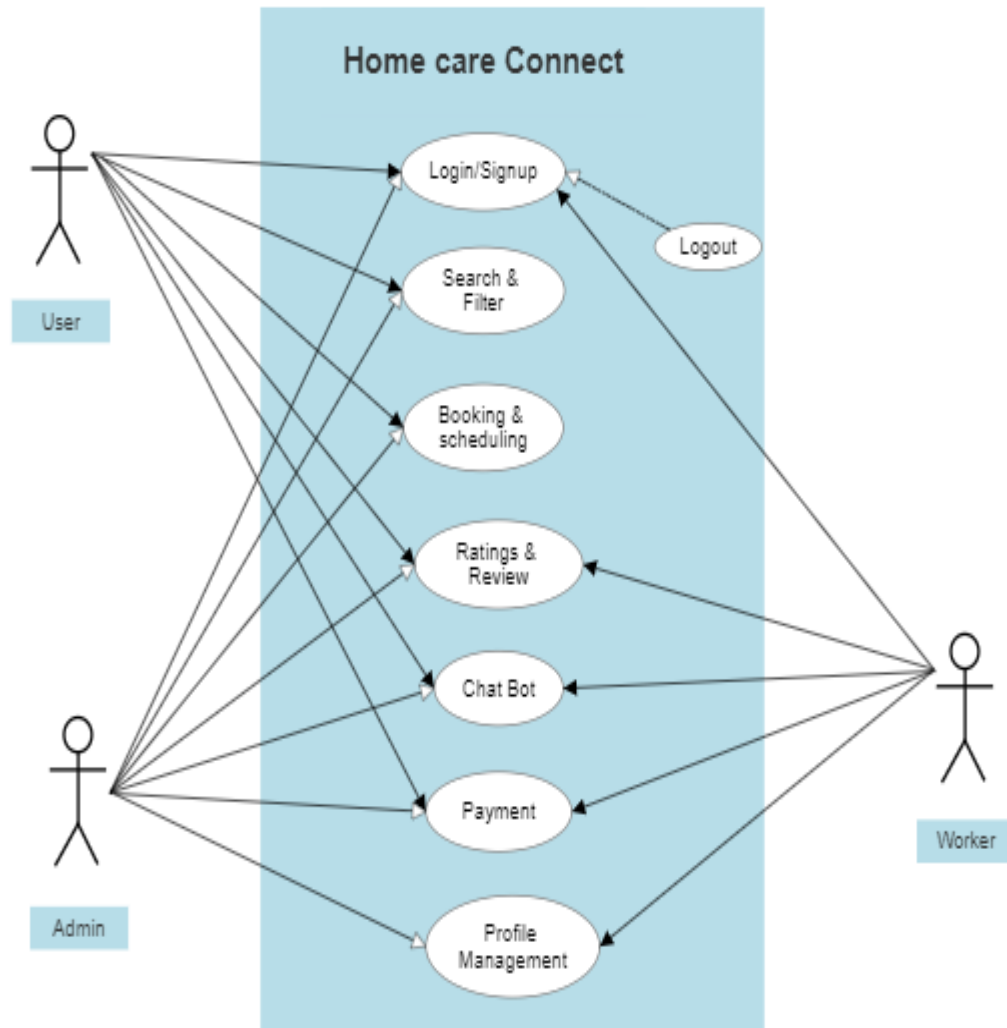
6. Other Requirements

We will ensure that the "Homecare Connect" platform remains competitive and adapts to the evolving needs and expectations of both users and domestic workers, providing a valuable and up-to-date service in the homecare services industry.

Appendix A: Glossary

Appendix B: Analysis Models

7.1 Use Case

7.2 Individual Functionality

1. User:
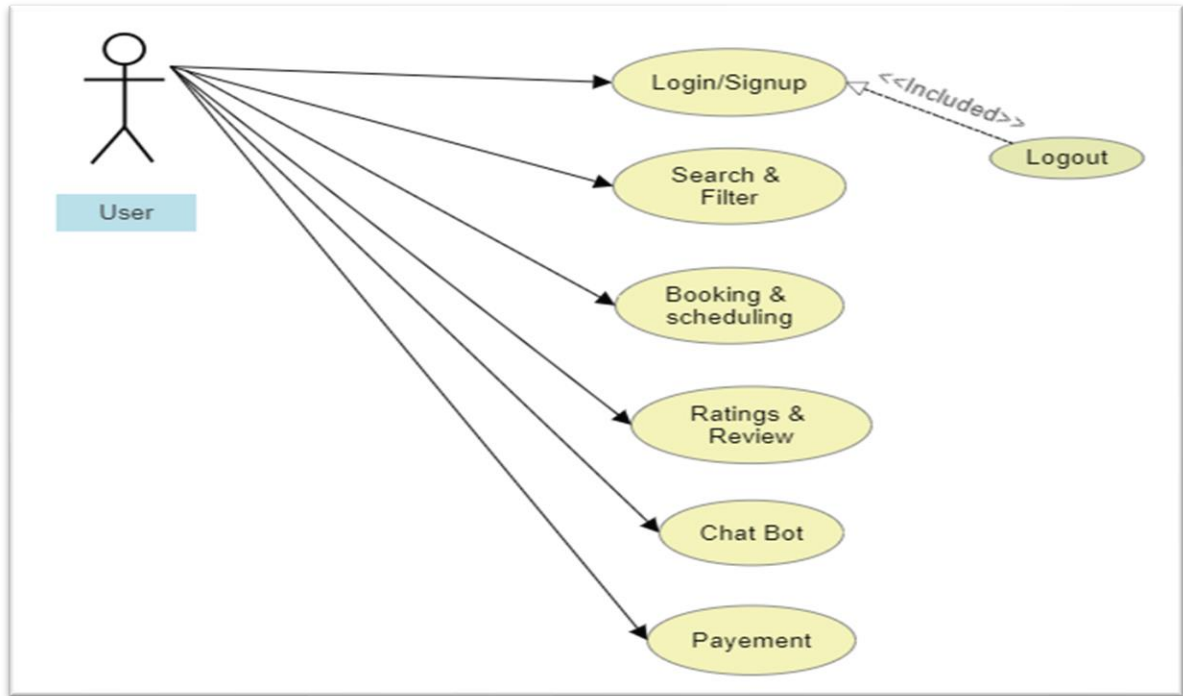
2. Admin:
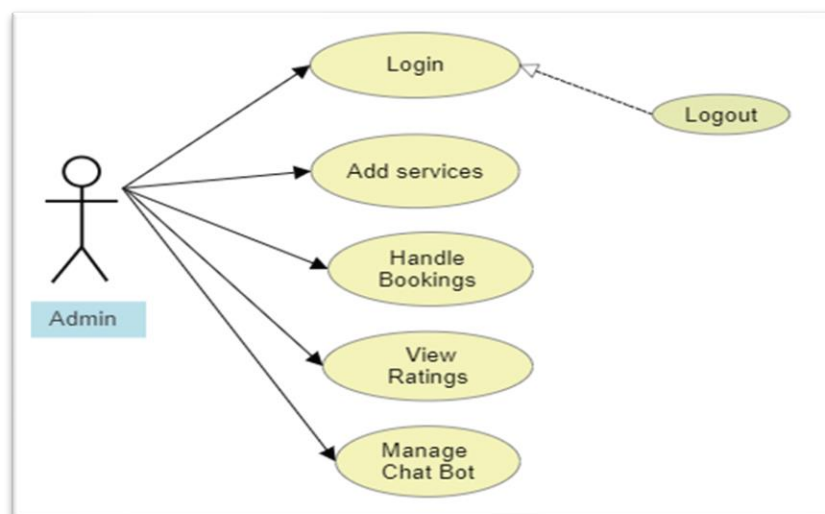
3. Worker:
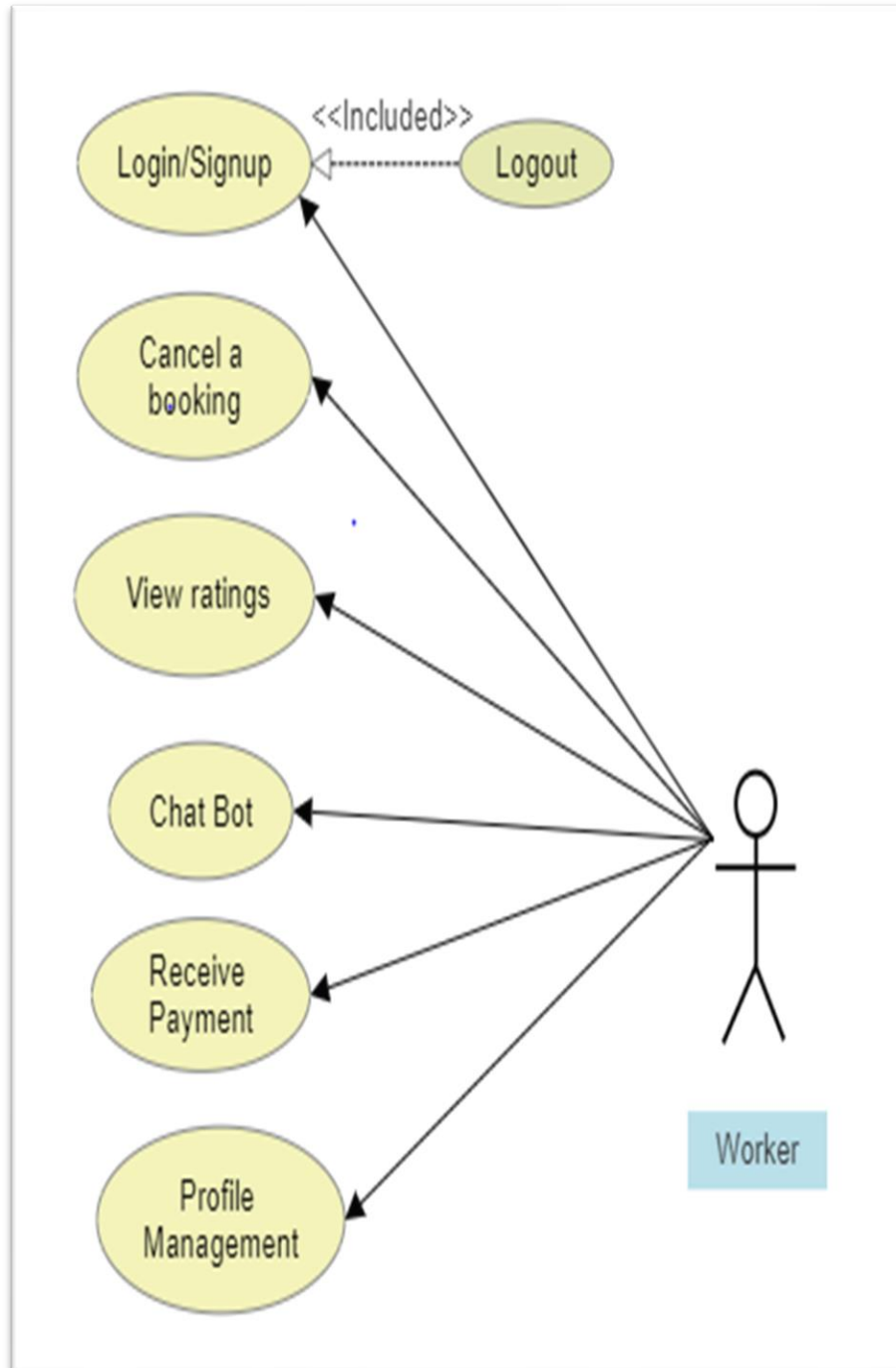
7.3 Use Cases

Non-Registered User/Worker

Use Case Name:	Signing up for an account
ID:	1
Actors Involved:	Non-Registered User/worker
Brief Description	The non-registered user wants to create a new account on the Homecare connect app.
Pre-Conditions	The non-registered user has access to a device with an internet connection and has not previously created an accounton the Homecare connect app.
Post-Conditions	The non-registered user has created a new account on the Homecare connect app and is logged in.
Normal Flow ofEvents:	The non-registered user opens the Homecare connect appand navigates to the sign-up page.

Registered User/ Worker

Use Case Name:	Login the page
ID:	2
Actors Involved:	Registered User/worker/Admin
Brief Description	The user wants to hire a worker or manage profile for the job on the Homecare connect.
Pre-Conditions	The user has a registered account on the app.
Post-Conditions	The user has login into the app and can select the preferred language.
Normal Flow of Events:	The user logs in to their account and navigates to the dashboard.

Language Selection

Use Case Name:	Choosing preferred language (English/ Urdu)
ID:	3
Actors Involved:	User, worker
Brief Description	The user or worker wants to interact to dashboard with preferred language.
Pre-Conditions	The user or worker have login into the account.
Post-Conditions	Then user or worker will interact to the dashboard to view, book, or accept the service.
Normal Flow ofEvents:	The worker or user choose their language to interact with the system and each other.

7.4 Test Cases

Requirement Reference	1	Test Name	Login
Test Case Id	TC-1	Test Type	Functionality
Test Case Description	To test the login functionality on the login screen.		
Test Steps	Enter valid credentials and click the login button.		
Expected Result	Open User Dashboard.		
Actual Result	Open User Dashboard.		
Pass/Fail	Pass		

| Requirement Reference	1	Test Name	Login
Test Case Id	TC-2	Test Type	Functionality
Test Case Description	To test the login functionality on the login screen.		
Test Steps	Enter invalid credentials and click the login button.		
Expected Result	Open User Dashboard.		
Actual Result	Display error message.		
Pass/Fail	Fail		

Requirement Reference	2	Test Name	Sign up
Test Case Id	TC-3	Test Type	Functionality
Test Case Description	To test the signup functionality on the web screen.		
Test Steps	Enter valid credentials and click the create button.		
Expected Result	Open User Dashboard.		
Actual Result	Open User Dashboard.		
Pass/Fail	Pass		

Requirement Reference	2	Test Name	Sign up
Test Case Id	TC-4	Test Type	Functionality
Test Case Description	To test the login functionality on the web screen.		
Test Steps	Enter invalid credentials and click the create button.		
Expected Result	Open User Dashboard.		
Actual Result	Display error message.		
Pass/Fail	Fail		

Requirement Reference	3	Test Name	Choose Language
Test Case Id	TC-5	Test Type	Functionality
Test Case Description	To test the Language change functionality on the app screen.		
Test Steps	Click the button of language and then select desired one.		
Expected Result	Open User Dashboard of preferred language.		
Actual Result	Open User Dashboard preferred language.		
Pass/Fail	Pass		

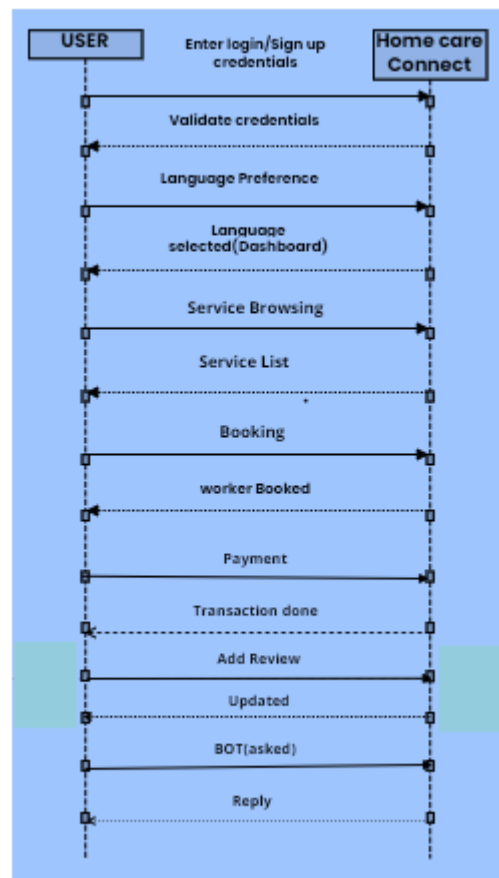| Requirement Reference	3	Test Name	Sign up
Test Case Id	TC-6	Test Type	Functionality
Test Case Description	To test the Language change functionality on the app screen.		
Test Steps	Click the button of language and then select a language.		
Expected Result	Open User Dashboard.		
Actual Result	Open User Dashboard but couldn't understand it because the language used was not as per my preference.		
Pass/Fail	Fail		

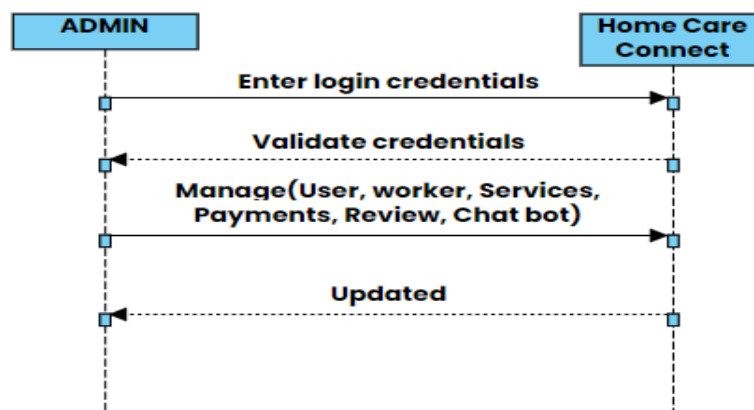## 7.4 Entity Relationship Diagram
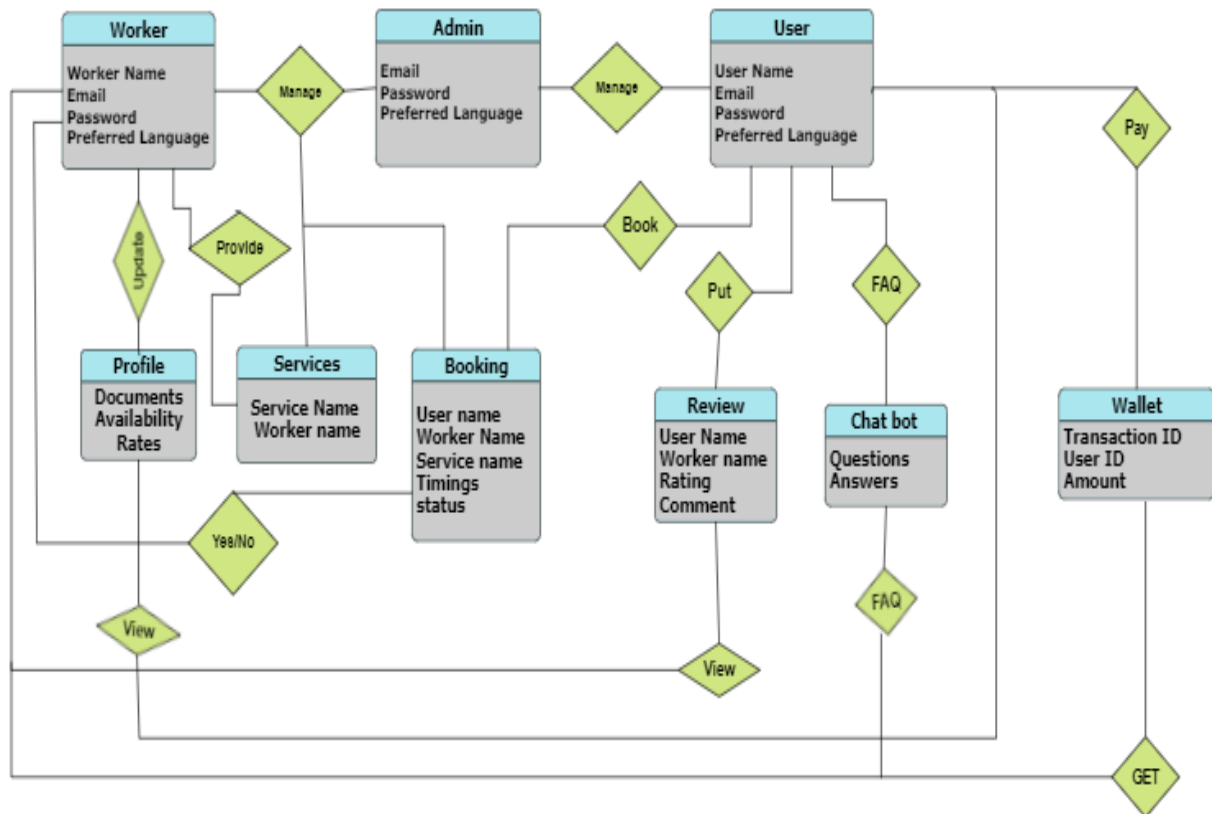
7.6 Process Model

The choice of model for the development of the Homecare connect platform will depend on several factors, including the goals and objectives of the project, the resources available, and the preferences and needs of the stakeholders. One model that may be suitable for the development of the Homecare connect platform is the Agile model. The Agile model is a flexible and iterative approach to software development that emphasizes the importance of collaboration and continuous iteration. In the Agile model, the development process is broken down into short sprints, during which the team works on specific features or components of the project. This allows for faster delivery of working software and the ability to adapt to changing requirements or priorities.
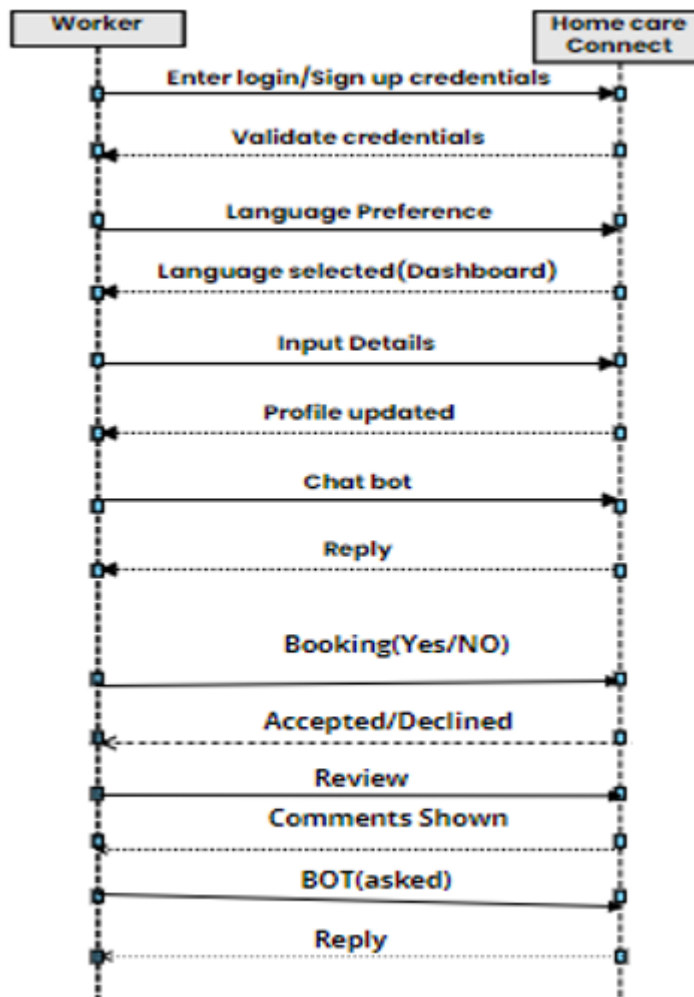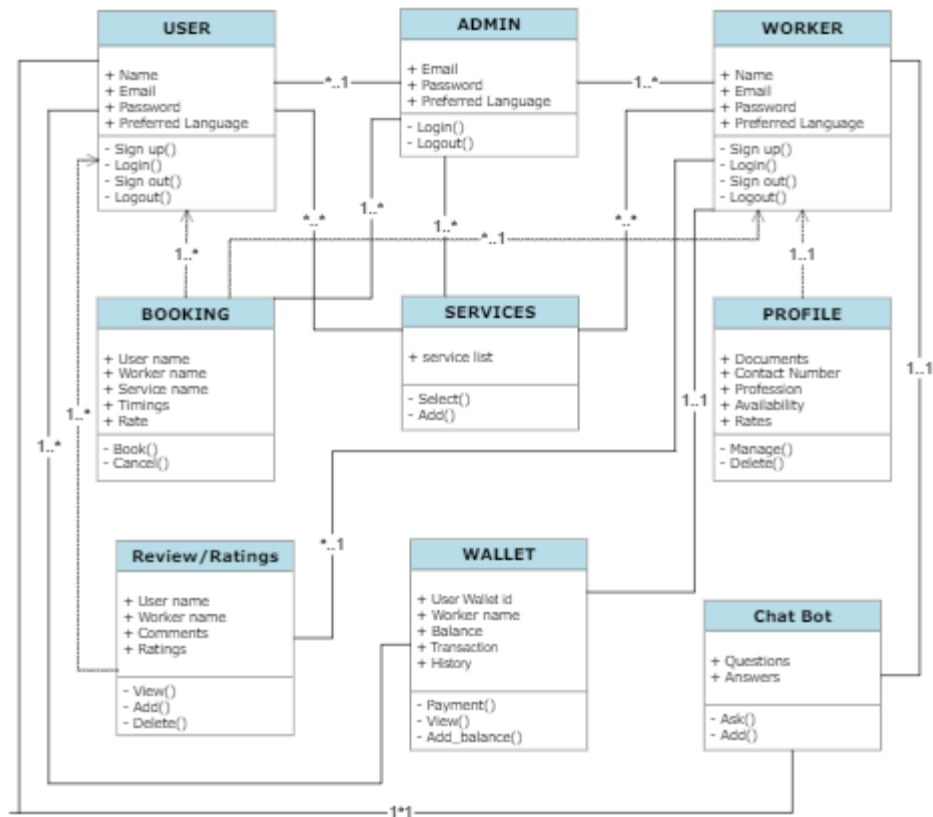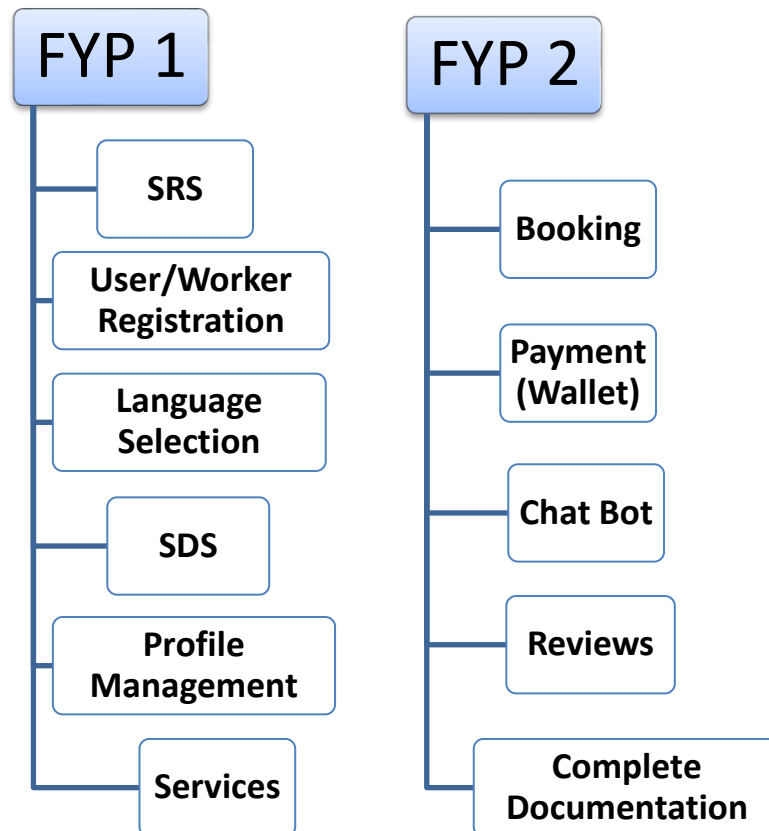
7.7 System Sequence Diagram:

Admin- System

Worker-System

7.8   Class Diagram

7.9 Iteration plan

```
FYP 1
    ├── SRS
    ├── User/Worker Registration
    ├── Language Selection
    ├── SDS
    ├── Profile Management
    └── Services

FYP 2
    ├── Booking
    ├── Payment (Wallet)
    ├── Chat Bot
    ├── Reviews
    └── Complete Documentation
```

8 Pseudo code