

An Android Application for Home Services

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Abstract - This project is focused on how on-demand apps have disrupted majority of traditional industries. From the way we travel, eat, shop, and even date, all has undergone a tremendous change. So, why not our household chores and errands? After all we all need an Irona in our lives who can complete our household chores and run our errands in a jiffy. Before we understand the nitty gritty of on-demand home services apps, let us start from the basic at what exact services that it provides. As the name suggests it serves as a platform where you can hire professionals for all your household chores at your fingertips. Like all other on-Demands it is inbuilt with all the essential functionality. Got a leakage issue at home, hire a plumber near your locality who will fix it in no time. Got issues with your AC, call an air conditioning expert who will fix your AC in just a matter of few minutes. Similarly, these apps help in fixing problems of carpentry, house cleanliness, home appliances, and all other household problems. The home service marketing niche in India is still in the nascent stage. With Indian cities seeing a significant growth

1. INTRODUCTION

Home Services app is the new trend in the market of on-Demand applications. With proper market research, inclusion of vital features, followed by appropriate marketing can make the app successful. The demand for Home Services Application will be on a rise as we imagine we all want an Irona in our lives. The age-old canters are not going to cause you any worries anymore. The trusted home services application with professional and qualified personnel can repair and fix everything around your home in an efficient manner. Problems get accentuated with rapid urbanization, rising incomes and abundance of low-cost workers. People are constantly in a hurry and are willing to pay more to ensure a certain level of service. The only other option available when scouting for these handymen is to avail the services of inept search directories and run the risk of being bombarded by incessant calls. Moreover, with smart phone being the preferred gateway to these services for most people and with monumental growth in its penetration across the country. As the existing application "Urban Clap" is only available in metro cities, this application extends reach to all the cities across India. This Application also aims to implement contract based model to flats around the city as a add-on service to their apartments at a reasonable amount.

2. EXISTING SYSTEM

2.1 URBAN CLAP

Urban Clap is an app – based service marketplace that connects customer to service professional. Their strategy is to connect more and more number of customers to use the platform of Urban Clap to make their life more easy and comfortable. With the rise in Nuclear families, Dual Career couples, the focus of customer is to spend quality time with their families whenever possible. Services at the door step at one click of the mouse is welcoming change accepted by customers today, giving rise to business model like Urban Clap, is here to stay for long time. However the success of these businesses is well dependent on how successfully Urban Clap can meet the expectations of its customers, reduce their pain and provide an overwhelming satisfaction to its customer base.

2.2 FORFIX

Forifix is an Integrated Pest Management venture, launched on September 5, Defense Day as a shield against the domestic terrorists (Pests and their pollutants) in and around the facilities. It addresses a significant gap between a serious pain point of every household and the horrid solutions available that one could ever risk. Forifix offers Pest Prevention with Safer, Odorless, and environment friendly products approved by WHO/EPA and FDA. In addition to this, they provide Heat Proofing and Water Tank cleaning and Home Improvement with allied repair and maintenance services.

2.3 HANDYMAN

Handyman which was incorporated on 21st November 2014, The Handyman was the first Professional Handyman Service provider in Pakistan. The 'Handyman' is a term used to describe technicians such as Electricians, Plumbers, AC Mechanics, Carpenters, and Wall Painters etc. Starting initially in Islamabad, they have a team of qualified handymen available to help households and businesses with cleaning, electrical, plumbing, painting, and other jobs that require urgent attention. They also provide cleaning & janitorial services, repair works as well as tasks related to construction management (building or constructing a house, office, or a commercial plaza, or remodeling your property).

3. PROPOSED SYSTEM

The proposed system consists of actors consisting of a worker and a client. The administrator has initial rights to access and modify the website, where it needs to login to do so. Then the administrator comes to the customer who wants to take advantage of our services, it has to be before the registration and login process. A client can upload a file describing the services if necessary. Once a request is made, it can forward it to the payment process and rate the customer service to confirm the service once the service is over. And in the worst case if customers are not satisfied with the service they can proceed with the return policy process. Finally a service provider that provides a service where they should also go through the registration and login process and proceed with the uploaded files and inform them to provide the service once the service is confirmed. Is done and when done after service.

4. IMPLEMENTATION

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4.1 Architectural design

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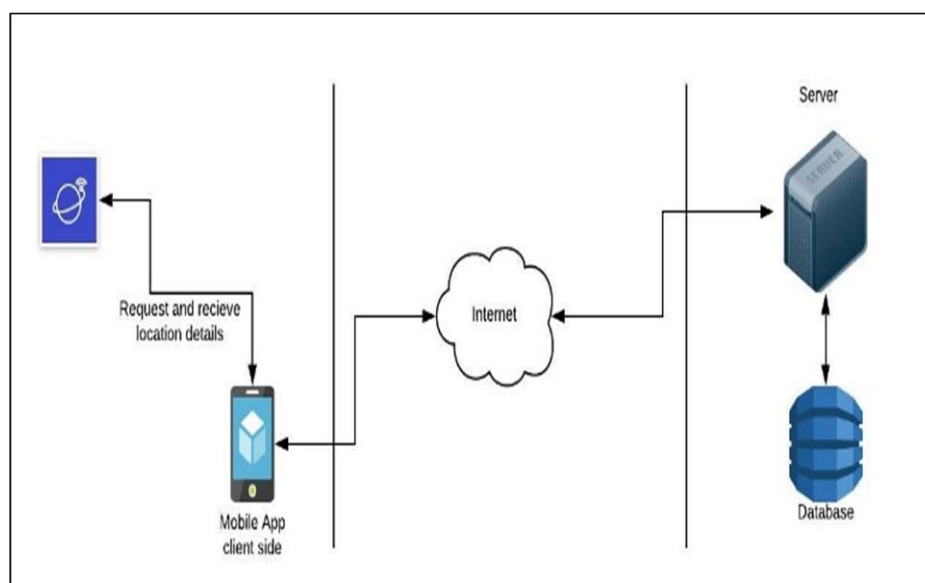


Fig 4.1: Represents the architectural design

Figure 4.1 represents architectural design of the system where the mobile application which is connected to the server and further connected to the database via mobile internet connection.

4.1.2 Use-Case Diagram

Usecase diagram is a list of action or event steps, typically defining the interaction between a role and a system, to achieve a goal.

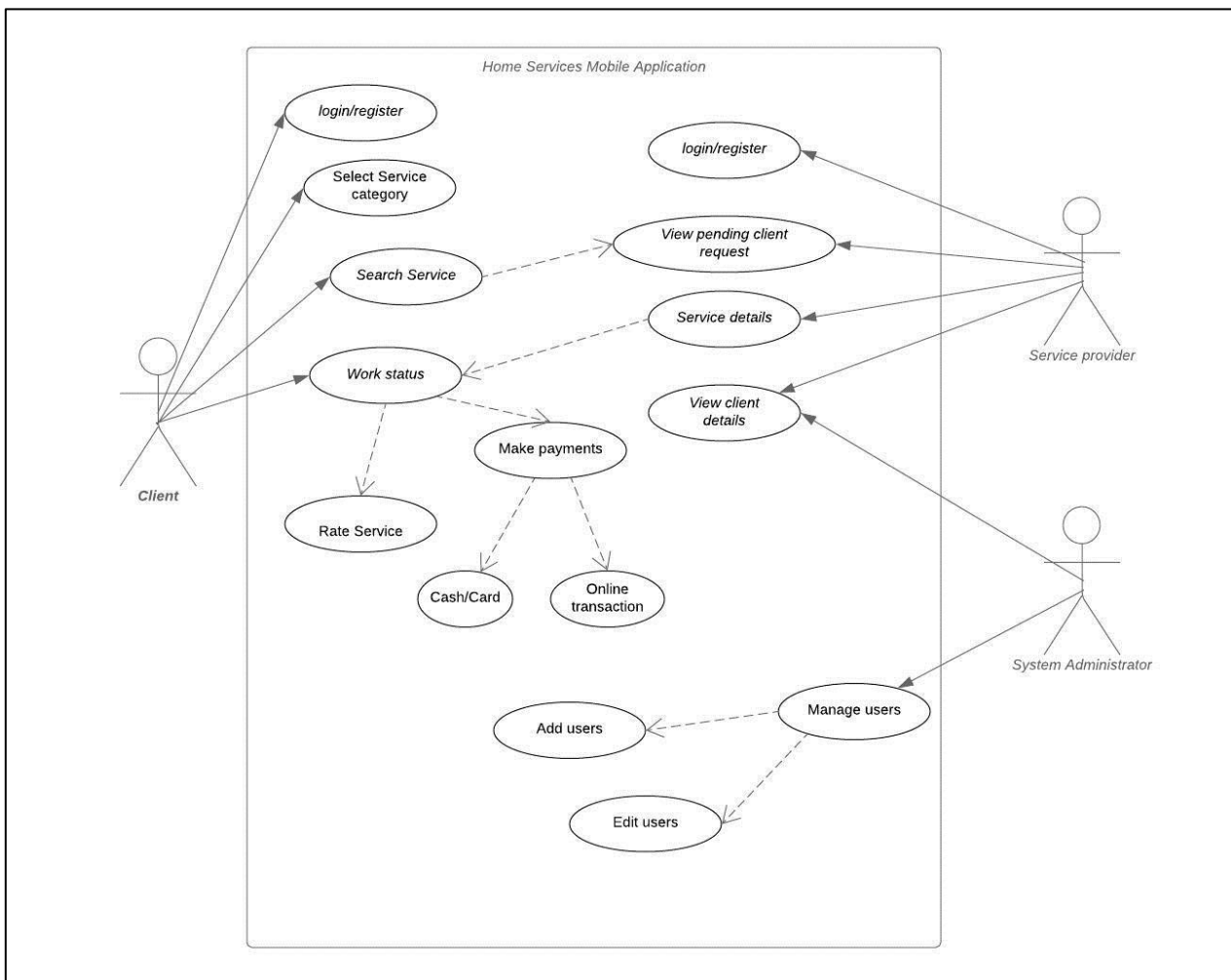


Fig.4.2: Diagram Representing Use Case Of the system

As seen in the above UML use case diagram the actor is a human, who can make choices through the interface and get the desired result. A use case is a methodology used in system analysis to identify, clarify, and organize system requirements. The use case is made up of a set of possible sequences of interactions between systems and users in a particular environment and related to a particular goal.

4.2 Functional requirements

4.2.1 Modular design

The below diagram represents the modular design or “modularity in design” is a design approach that subdivides a system into smaller parts called modules that can be independently created and then used in different systems.

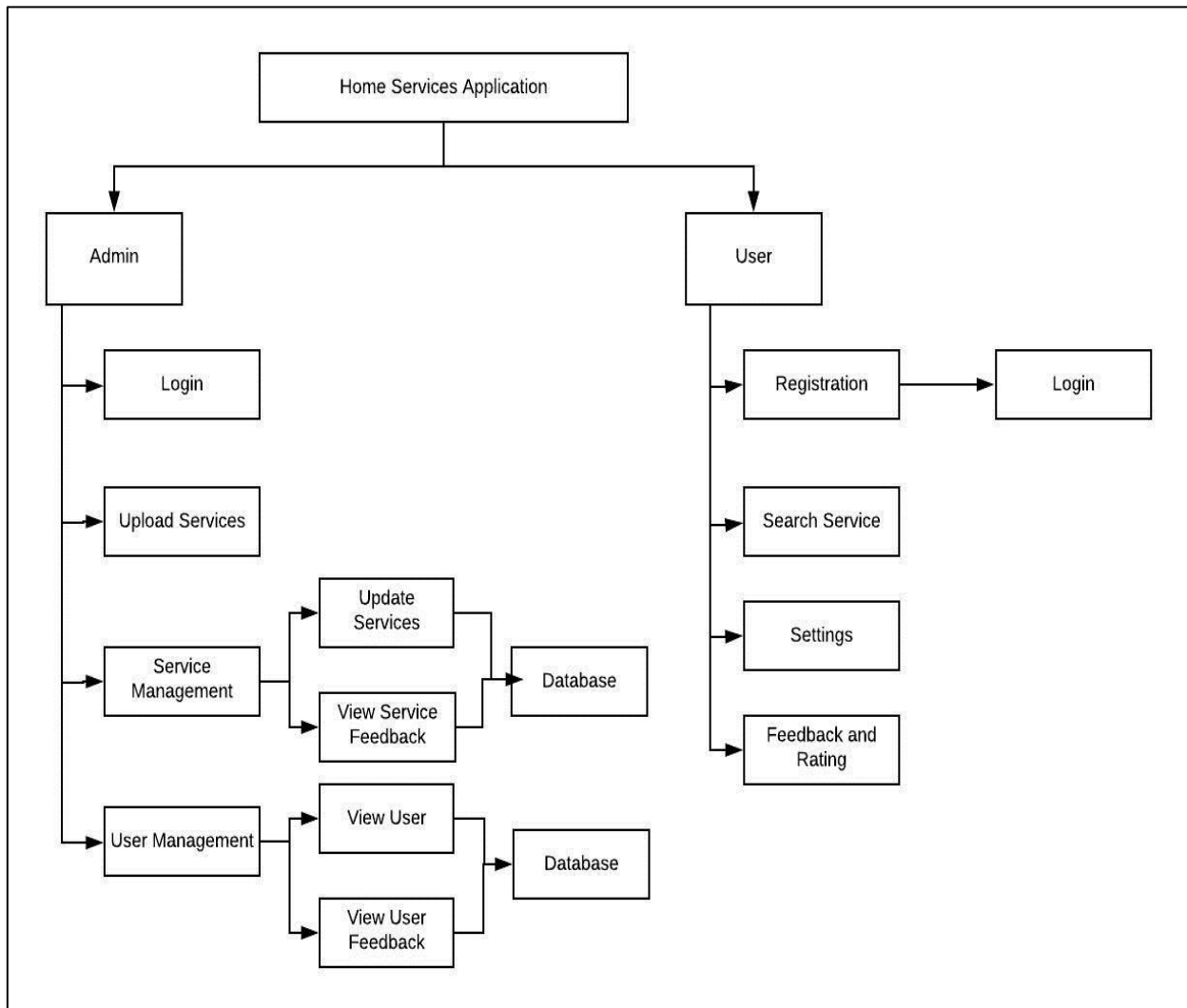


Fig. 4.3: Diagram Representing Modular Design

Fig. 4.3 represents home service application having admin and user panel, each of which shows the respective functions and actions it works on.

4.2.2 Dataflow Diagram

A data flow diagram (DFD) is a graphical representation of the "flow" of data through an information system, modeling its process aspects. In this Data Flow Diagram, we can see how the user display model works. Flow diagrams, in general, are usually designed using simple symbols. It is a way of representing a flow of data of a process or a system. The DFD also provides information about the outputs and inputs of each entity and the process itself. A data-flow diagram has no control flow, there are no decision rules and no loops. Here, we have 2-levels to represent the data flow.

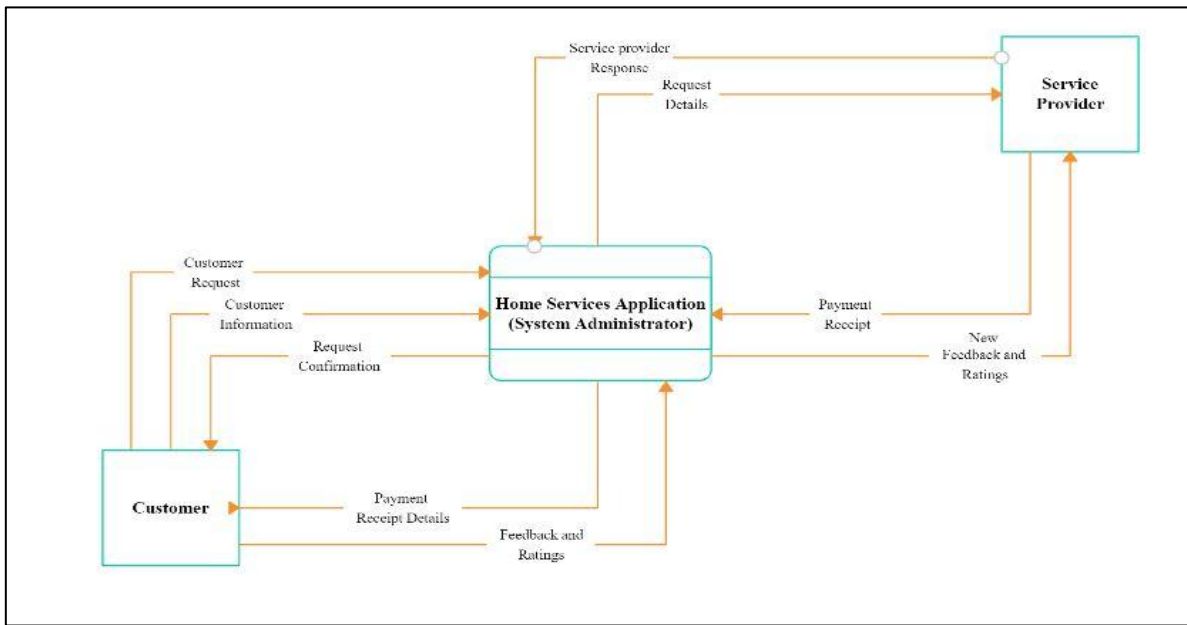


Fig 4.4: Data flow Diagram level 0

0-level is also known as a context diagram. It's designed to be an abstraction view, showing the system as a single process with its relationship to external entities. It represents the entire system as a single bubble with input and output data.

Fig. 4.4 represents how the customer engages with the home service application, and in turn how the applications forwards the request to the service provider and facilitates service.

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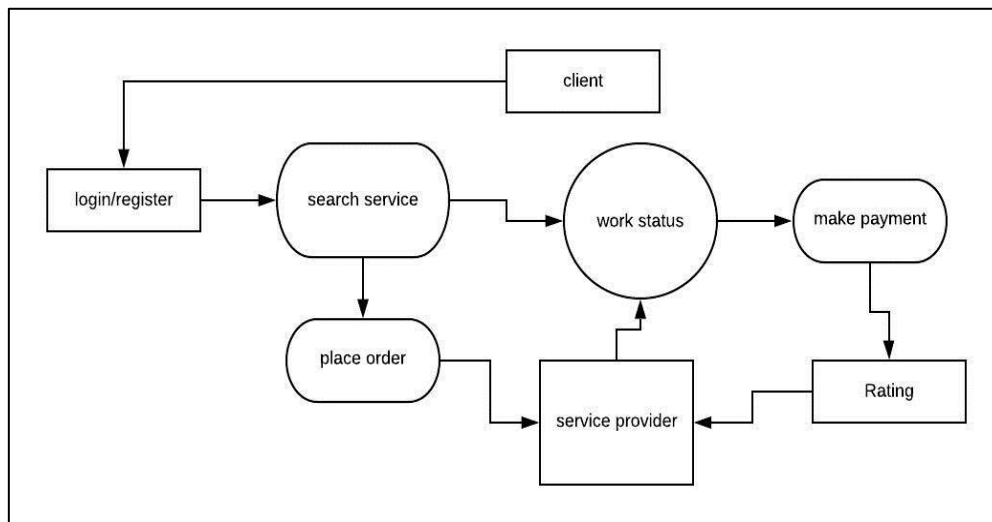


Fig. 4.5 Data Flow diagram level-1

In 1-level DFD, a context diagram is composed of process. In this, we highlight the main functions of the system and breakdown the high-level process of 0-level DFD into the process.

Fig. 4.6 represents the client action starting from login or registering to the application, selection of the service to the knowing the work status and making payment for the service availed and providing feedback to the service.

4.2.3 Sequence Diagram

A Sequence diagram is an interaction diagram that shows how objects operate with one another and in what order. It is a construct of a message sequence chart. A sequence diagram shows object interactions arranged in time sequences. The below sequence diagram represents the sequence of action.

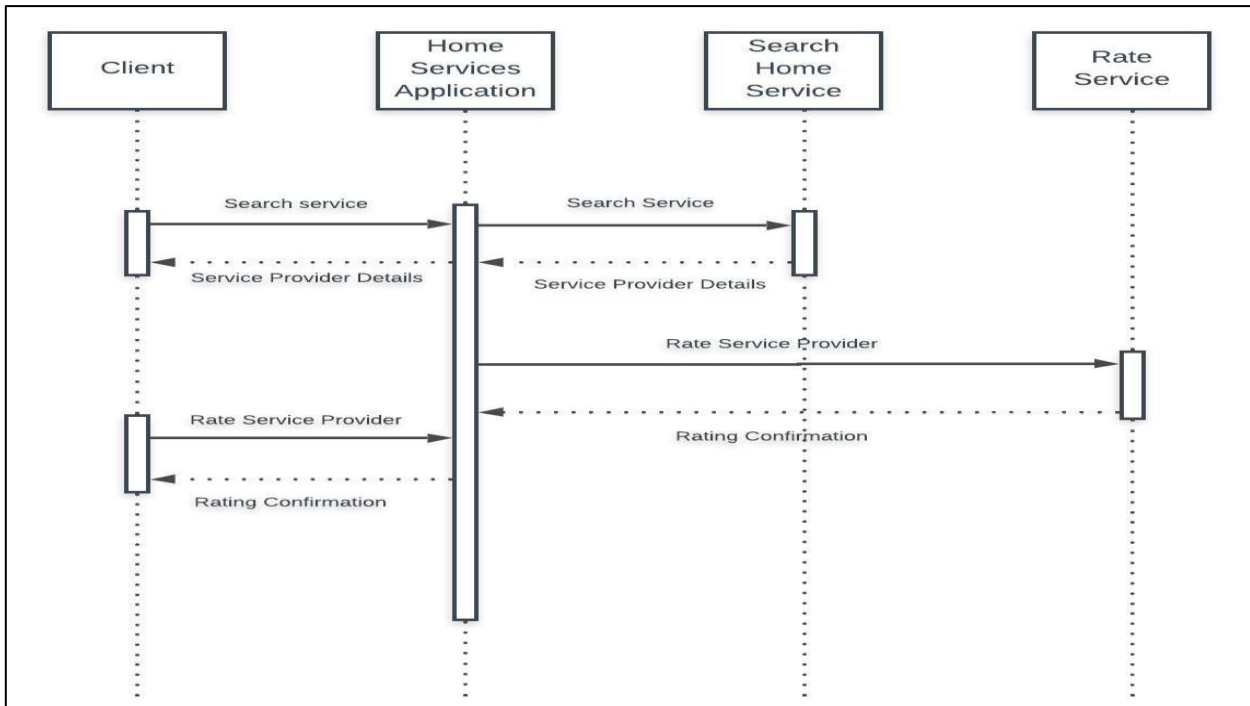


Fig.4.7: Sequence diagram

4.2.4 Control Flow Diagram

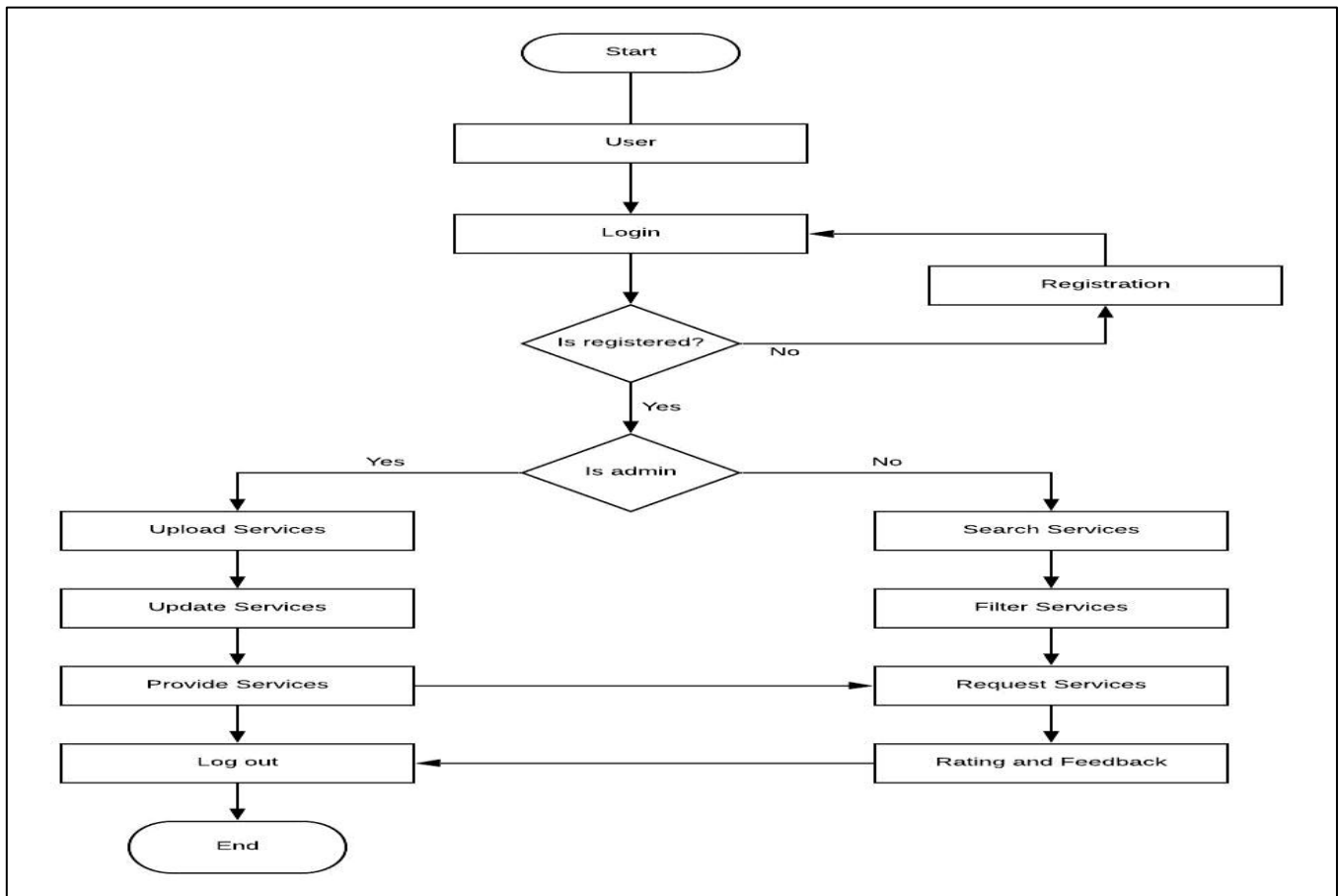
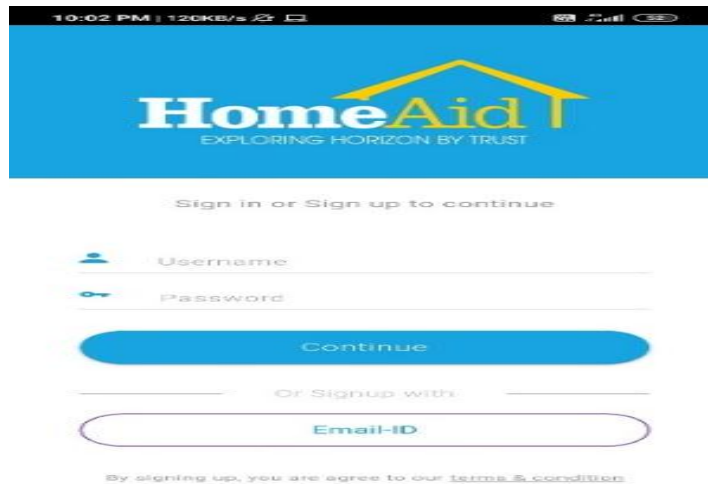


Fig 4.8 Control Flow

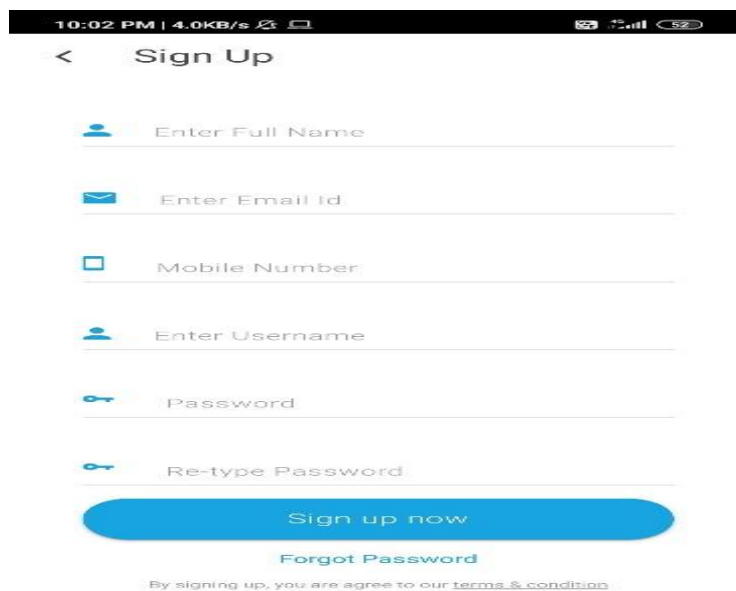
A Control Flow diagram(CFD) is a diagram to describe the control flow of a process or review.

5. RESULTS

5.1. LOGIN SERVICE

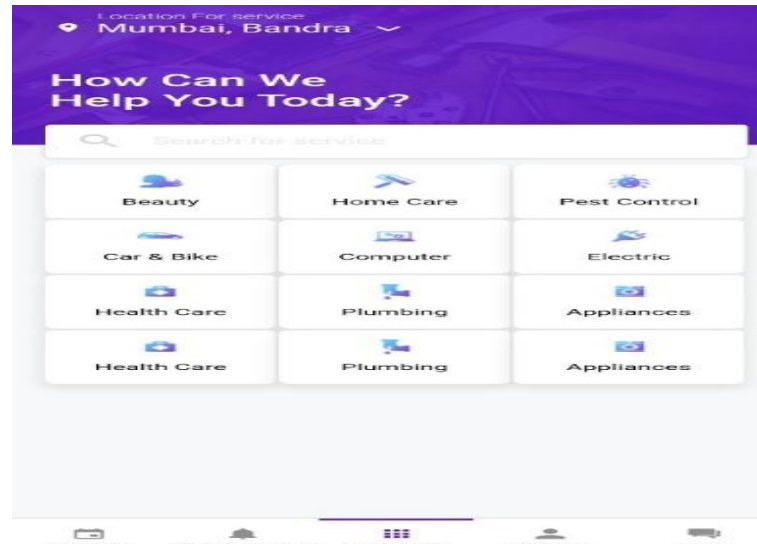


In this above Login page screen we have two options Sign-in and Sign-up, Sign-in is for the one who who already have their account and Sign-up, on the other hand is an action taken by the user who identifies himself as a new user. Signing into this app is very simple we just need to put our email-id along with our password.



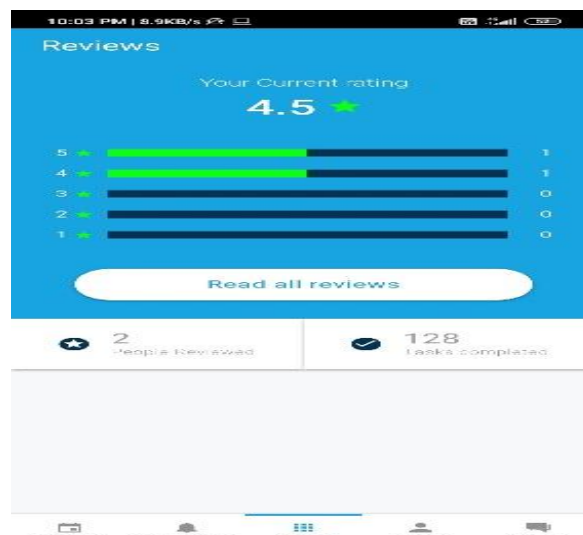
After we log-in we will come across this page were we are supposed to fill up our details. After entering the details when we click on the sign up button then the details about us will be get registered and the account can be opened for us.

5.2 SEARCH SERVICE



This app consists of numerous facilities that a man requires in his Day to Day life. There is also a search option for the one's who are in search of new facility. You can also find various services close to your residential or work station by setting Location which makes you to avail the service in an easier way by saving your time.

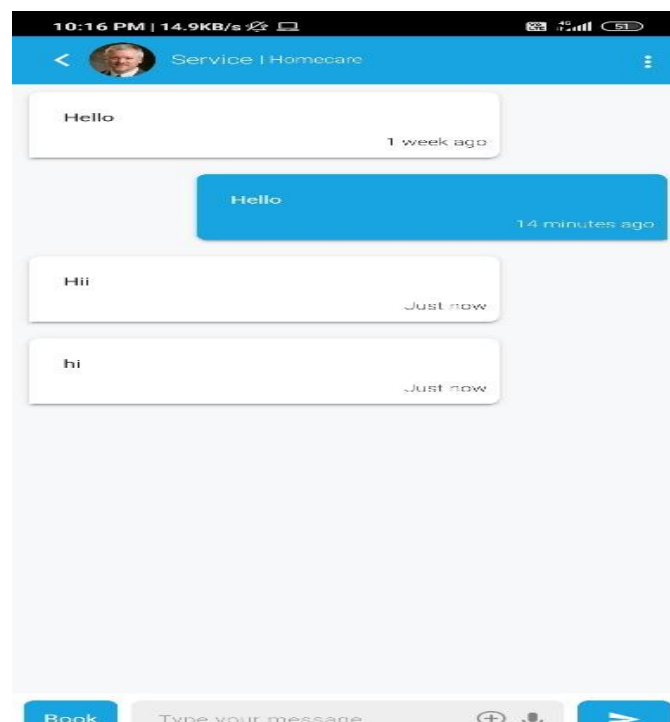
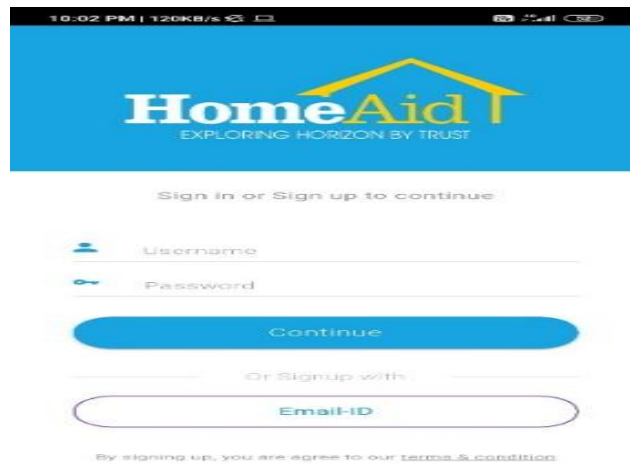
5.3 RATING SERVICE



Your app rating and review matter a lot. They play a massive role in a person's decision to download an app. People depend on ratings and reviews to inform them about whether they should or should not download an app.

To make sure you're on the right path with your app growth, we've prepared a thorough guide to App store and Google play ratings and reviews.

5.4 PROVIDER SERVICE



The provider Online Service center gives you the tool to effectively manage your business with Large number of customers. In this numerous options are provided for each facilities mentioned in the app. This service provider to has loggin credentials for the one who is availing you the services. Working of service provider is very simple, the customer needs to loggin and check for the service he needs in his nearest place possible, after selecting the service customer will get numerous specifications based on the service selected by him then he needs to select the option which matches his requirement and then provides a list of persons who are specialized in that particular field and the customer sends the request to the one who matches his specification. Once the request goes to the service provider, he gets the details of the customer who has appointed him and the service provider has the right to decide whether he needs to provide the facility or not.

6. CONCLUSION

Home services are needed and the demand for services is increasing since the population in Asia is ageing. Nonetheless, old people are not the only group to benefit from home services, Other consumer groups are also going to benefit from new services also. Services have to be received either in person or unattended. As an example, social services have to be

received in person but item deliveries can be done using reception systems. Unattended reception box is the most comfortable way to receive items for the customer. Unattended is also the most cost-effective reception model to logisticians since many deliveries can be done at the same time. According to the literature study and interviews, home services and delivery can be supported by many different elements of interest for building owner, developer/builder, inhabitant, haulier/logistician, service provider, employer and municipality. A closer look at stakeholder interests, the main interest for services found in literature and in interviews reveals three interesting focus points; new service, cost savings and influence on building image

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