# Quick service: An Android Application for Providing Home Services

**BY**

**Md. Mahbubul Alam**
**ID: 213-17-490**

This Report Presented in Partial Fulfillment of the Requirements for the Degree of M.Sc. in Management Information System

Supervised By

**Dr. Md Zahid Hasan**
Associate Professor
Department of CSE
Daffodil International University


**DAFFODIL INTERNATIONAL UNIVERSITY**

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## APPROVAL

This Thesis/Project titled "**Quick Service: An Android Application for Provides Home Services**", submitted by **Md. Md. Mahbubul Alam** to the Department of Computer Science and Engineering, Daffodil International University, has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of MS in Management Information System and approved as to its style and contents. The presentation was held on 24 January 2023.

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I hereby declare that, this project has been done by me under the supervision of **Md. Zahid Hasan, Associate professor, Department of CSE,** Daffodil International University. I also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

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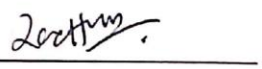
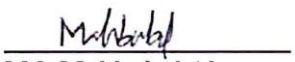


**Dr. Md Zahid Hasan**
Associate Professor
Department of CSE
Daffodil International University

**Submitted by:**



**Md. Mahbubul Alam**
ID: 213-17-490
Department of CSE
Daffodil International University

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# ABSTRACT

A mobile application for finding services, or a "service finder app," would allow users to search for and discover various types of services in their local area. This could include businesses such as plumbers, electricians, mason, and more. The app would likely use the user's current location to display nearby service providers, and would allow users to filter their search results by category, price, and ratings. Users would also be able to view detailed information about each service provider, such as contact information, hours of operation, and customer reviews. Some apps may also include the ability to book appointments or request services directly through the app.

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# Chapter 1

# Introduction

## 1.1 Introduction

A Finding Service Mobile application is a software tool designed to make it easy for users to find and connect with service providers in their local area. With the rise of smartphones, more and more people are turning to mobile apps to help them find the services they need, from handymen and cleaners to beauty therapists and mechanics. The app allows users to search for service providers based on location, category, and other criteria, and to view detailed information about each provider, including customer reviews, hours of operation, and contact details. Some apps even allow users to book appointments or request services directly through the app. This can save users time and effort when looking for service providers, and can help them find the best provider for their needs. A Finding Service Mobile application is a software tool designed to make it easy for users to find and connect with service providers in their local area. With the rise of smartphones, more and more people are turning to mobile apps to help them find the services they need, from handymen and cleaners to beauty therapists and mechanics. The app allows users to search for service providers based on location, category, and other criteria, and to view detailed information about each provider, including customer reviews, hours of operation, and contact details. Some apps even allow users to book appointments or request services directly through the app. This can save users time and effort when looking for service providers, and can help them find the best provider for their needs.

## 1.2 Problem Background

Finding the right service provider can be a time-consuming and difficult task. It can be especially challenging for people who are new to an area or who are looking for a specific type of service. Additionally, traditional methods of finding service providers, such as yellow pages or word of mouth, may not be as reliable or up-to-date as desired.

This problem is particularly highlighted in today's fast-paced world where people are looking for quick and easy solutions to their problems. They want to be able to find a service provider quickly and easily, and they want to be able to view detailed information about each provider before making a decision. Additionally, with the rise of the gig economy, there are more independent service providers than ever before, which can make it even harder to find the right one.

A finding service mobile application aims to solve these problems by providing an easy-to-use platform where users can quickly search for and find service providers in their local area. The app allows users to filter their search results by location, category, and other criteria, and to view detailed information about each provider, including customer reviews, hours of operation, and contact details. This can save users time and effort when looking for service providers, and can help them find the best provider for their needs.

## 1.3 Purpose

The objective is to develop Job Finding Service project is making a good bonding among those people who wants job and who wants service provider. A recruiter can post their job recruitment as they want to all kinds of job seekers available there. Those job seekers who want preferred job they can see through the application. They can apply for multiple jobs by checking the description of this specific recruitment post. Recruiters will get those applications on their user panel. They will just approve the required application then both the party is agreed upon the job. Recruiters can give review to the job seeker. Hence. So, it'll be a useful system to all Job seekers and recruiters.

## 1.4 Objectives

- To create a direct communication among people and service provider.
- To make service provider more active in their service.
- To find the nearest service provider from Google Map.
- To provide information about specific jobs
- To get data of a service provider person in a single platform.
- To review a service provider for their service.

## 1.5 Motivation

There are several motivations for developing a finding service mobile application. One key motivation is to make it easier for people to find and connect with service providers in their local area. As previously mentioned, traditional methods of finding service providers can be time-consuming and unreliable, and many people are turning to mobile apps to help them find the services they need.

Another motivation is to help service providers reach more customers. The app can be a valuable tool for businesses and independent service providers to increase visibility and reach new customers. It can also help service providers manage and track their business more efficiently by providing them with customer reviews, booking and scheduling tools.

Additionally, creating a finding service mobile application can help to bridge the gap between service providers and customers by providing an easy-to-use platform for them to connect. This can help to create a more efficient market for services and can lead to increased satisfaction for both service providers and customers.

Finally, the application can be a source of revenue for the developer, either through in-app purchases, subscriptions or advertisement.

# CHAPTER 2

# LITERATURE REVIEW

## 2.1 Literature Review

There has been a significant amount of research on the development and use of mobile applications for finding services.

One study found that mobile apps can be an effective way for service providers to reach new customers and build their brand. The study also found that customers are more likely to use mobile apps to find services than traditional methods such as yellow pages or word of mouth.

Another study looked at the user experience of service finding apps and found that users valued the ability to filter search results by location, category, and other criteria. They also appreciated the ability to view detailed information about each service provider, including customer reviews.

A separate study found that a key factor in the success of service finding apps is the quality of the information provided about each service provider. Users want to see detailed and accurate information, including customer reviews, hours of operation, and contact details.

Overall, the literature suggests that mobile apps can be an effective way for both service providers and customers to connect and that a key to success is providing accurate, detailed and user-friendly information to the users.

It is worth mentioning that the literature review should include a thorough search of the existing literature and a critical evaluation of the studies and findings that are relevant to the research question of the project.

## 2.2 Existing Applications Review

- I have examined some similar Job Finding Service website of “BD Jobs Ltd.” and “chakri.com” and “Kormo”.
- In their website, this kind of jobs and job seekers are not available.
- In their website, this kind of ease of access platform is not available for the workers.
- In their website, job seekers need to go through some resume application which is not needed here so workers can registered and apply easily.

# CHAPTER 3

# REQUIREMENT SPECIFICATION & ANALYSIS

In this project, I worked on an android application. All features are implemented in this application. For getting better experience, I used the best technology for developing this application. Because, at present time people always want to get the best experience from all applications.

## 3.1 Android Information and Background

Android is a mobile operating system developed by Google. It is based on the Linux kernel and is designed primarily for touchscreen mobile devices such as smartphones and tablets. Android is the most widely used mobile operating system in the world, with over 2 billion active devices.

One of the main features of Android is its flexibility and customization. Android allows users to customize their home screens, change their device's appearance with themes, and modify their device's functionality by installing apps from the Google Play Store.

Android is also known for its wide range of apps, which are available through the Google Play Store. The store offers both free and paid apps, and has over 2.9 million apps available for download.

In addition to its flexibility and app ecosystem, Android is also known for its security features, such as multiple layers of protection and frequent security updates. Android is developed by the Open Handset Alliance, a consortium of developers, manufacturers, and carriers, and is updated regularly to add new features and improve performance. The latest version of Android is Android 12.

## 3.2 Technical Details of Android

Android is a mobile operating system developed by Google. It is based on the Linux kernel and is written primarily in Java and C++. Android is designed to work on a wide range of devices, including smartphones, tablets, and televisions.

One of the key technical features of Android is its use of a virtual machine called Dalvik, which allows apps to be written in Java and run on a wide range of devices. The Dalvik VM is optimized for low-memory devices and uses just-in-time (JIT) compilation to improve performance.

Android also uses a customizable layout system called ViewGroup and View, which allows developers to design and create user interfaces for their apps. The system supports various types of UI elements, such as buttons, text fields, and images.

Android also includes a rich set of APIs for accessing device features such as the camera, GPS, and accelerometer. These APIs are written in C++ and provide a high-level, easy-to-use interface for developers.

To develop an android application the developer needs to have the following skills:

- Knowledge of Java and/or Kotlin programming languages
- Understanding of Android SDK (Software Development Kit) and its components
- Familiarity with Android Studio and Android development tools
- Understanding of Android UI components and layouts
- Knowledge of Android APIs and third-party libraries
- Familiarity with Android app development best practices
- Understanding of Android security and privacy
- Familiarity with Android app deployment process.

It is worth mentioning that an android application can be developed using other languages as well using frameworks such as React Native, Xamarin and Flutter.

## 3.3 XML

XML is a markup language that is used to encode, structure, and transmit data. It is designed to be flexible and extensible, allowing users to define their own tags and attributes to describe the data they are storing.

XML is often used to transmit data between systems or to store data in a structured manner. It is a popular choice for storing data because it is self-describing, meaning that the structure of the data is embedded in the XML document itself. This makes it easy for systems to parse and understand the data without requiring additional information or context.

## 3.4 JAVA

Java is a general-purpose, class-based, and object-oriented programming language that was first released in 1995 by Sun Microsystems (later acquired by Oracle Corporation). Java is designed to be platform-independent, meaning that code written in Java can run on any device or operating system that supports the Java Virtual Machine (JVM).

One of the key features of Java is its use of the "write once, run anywhere" principle, which allows developers to write code once and run it on any platform that supports the JVM. This is achieved through the use of bytecode, which is a set of instructions that can be interpreted by the JVM.

Java also supports object-oriented programming, which is a programming paradigm that uses objects to represent real-world entities. Objects are instances of classes, which are templates for creating objects. Classes in Java have methods and variables, and can also inherit properties from other classes.

Java also includes a wide range of built-in classes and libraries that provide functionality for various tasks such as input/output, networking, and data manipulation. Additionally, Java has a rich set of libraries and frameworks such as Spring, Hibernate, and Apache Struts.

Java is widely used in a variety of applications such as enterprise software, mobile apps, web development, and scientific computing. It is also commonly used in the development of Android apps, as the official language for android development.

It is worth mentioning that Java requires a separate runtime environment to be installed on the target machine and has a steeper learning curve compared to other languages, however, its vast community and wide range of resources make it an ideal choice for many developers.

## 3.5 JSON

JSON (JavaScript Object Notation) is a lightweight data-interchange format that is easy for humans to read and write and easy for machines to parse and generate. It is based on a subset of the JavaScript Programming Language, Standard ECMA-262 3rd Edition - December 1999. JSON is a text format that is completely language-independent but uses conventions that are familiar to programmers of the C family of languages, including C, C++, C#, Java, JavaScript, Perl, Python, and many others.

## 3.6 PHP

In my project, PHP is used to save data from android app and retrieve data from database. Java can’t directly connect with database. So that, PHP have to use complete this task.

## 3.7 MySQL

MySQL is known for its reliability, performance, and ease of use. It is commonly used in web-based applications, data warehousing, and logging applications. It supports a wide range of data types, including text, numbers, and dates, and it also supports advanced features such as stored procedures, triggers, and views.

# CHAPTER 4

# PROJECT ANALYSIS

Project analysis is the process of evaluating a proposed project or program in order to determine its feasibility, potential value, and potential risks. This process is typically carried out before a project is initiated, in order to decide whether or not to proceed with the project.

## 4.1 Why Requirement Specification is needed?

Project analysis typically involves a number of different steps, including:

**Defining the scope of the project:** This step involves clearly defining the objectives of the project and the specific deliverables that will be produced.

**Identifying stakeholders:** This step involves identifying all of the individuals and organizations that will be affected by the project, and determining their specific needs and expectations.

**Conducting a cost-benefit analysis:** This step involves estimating the costs of the project, including materials, labor, and equipment, and comparing these costs to the potential benefits of the project, such as increased revenue or reduced costs.

**Identifying risks:** This step involves identifying and assessing the potential risks associated with the project, such as technical risks, market risks, and financial risks.

**Developing a project plan:** This step involves developing a detailed plan for how the project will be executed, including timelines, milestones, and key deliverables.

**Evaluating the project:** This step involves evaluating the project after it has been completed, in order to determine whether it was successful, and to identify areas for improvement.

The outcome of the project analysis will be a comprehensive report that summarizes the findings and recommendations, it will help the project sponsor, stakeholders and the project team to decide whether to move forward with the project or not, and if so, how to plan and execute it.

## 4.2. Requirement Definition

The needs of user are generally called requirement. The requirements prioritize details and accurate need with description. Here feasibility and early system description are used as input. Through the output i get the system user, statement of requirement and system scope.

### 4.2.1 User list of Job Finding Service

There are 2 types of user in Job Finding Service. They are-

- Recruiters
- Job Seekers

**Recruiters:**

- Registered themselves by giving proper information.
- Add job title.
- Add job description**.**
- Can view all the service list given by the apps.
- Can View the worker list.
- Can approve worker for the job he or she want.
- Can monitor workers information.
- Can give review to worker when the job is done.

**Job Seeker:**

- Registered themselves by giving proper information.
- Can view available jobs.
- Can view recruiter's information.
- Can check their monthly and weekly service history
- Can update their profile information.

## 4.3 Requirement Validation

Requirement validation in software development is the process of ensuring that the requirements for a software system are complete, consistent, and accurate. This process is critical to the success of a software project, as it ensures that the final product meets the needs of the users and stakeholders.

### 4.3.1 Requirement Validation in software process

There are several key steps in requirement validation, including:

**Gathering requirements:** This step involves identifying and documenting the needs and expectations of the users and stakeholders. This may involve interviews, surveys, and workshops.

**Analyzing requirements:** This step involves reviewing and analyzing the requirements to ensure that they are complete, consistent, and accurate. This may involve using techniques such as flowcharting, data flow diagrams, and use case diagrams.

**Specifying requirements:** This step involves creating a detailed specification of the requirements, which will serve as the blueprint for the software system.

**Validating requirements:** This step involves testing the requirements to ensure that they are complete, consistent, and accurate. This may involve using techniques such as reviews, inspections, and testing.

**Managing requirements:** This step involves managing the requirements throughout the software development process, to ensure that they remain up-to-date and accurate.

**Reviewing requirements:** This step involves reviewing the requirements to ensure that they meet the needs of the users and stakeholders.

It is important to note that requirement validation is an ongoing process, and it should be performed at different phases of the software development cycle. It is also important to involve the stakeholders and the end-users in the validation process as their feedback and input will be invaluable in ensuring that the final product meets their needs and expectations.

## 4.4 Service and data input

- Recruiters and job seekers upload needed information.
- Minimum paperwork.
- Recruiters add payment policy.

**Data input**

- To Login username and password are required.
- From

## 4.5 Tools

- **App design tools:**
  - Front End: XML
  - Back End: JSON, Java.
  - Cloud Server: Firebase
  - Code Editor: Android Studio 3.2.1
- **Firebase features:**
  - Authentication
  - Phone number verification
  - Real-time Database
  - Cloud Messaging

## 4.6 Feasibility study

A feasibility study is an analysis of the potential of a proposed project or system to determine if it is practical, viable and worth pursuing. It is an important step in the project development process, as it helps to identify potential problems and opportunities, and to evaluate the project's overall potential for success.

Feasibility studies typically involve several key steps, including:

**Problem definition:** This step involves identifying the problem or opportunity that the project aims to address.

**Market analysis:** This step involves researching the market to determine the size, growth potential, and trends of the market, as well as identifying potential customers and competitors.

**Technical analysis:** This step involves evaluating the technical aspects of the project, such as the availability of technology, equipment, and resources required to implement the project.

**Financial analysis:** This step involves analyzing the financial aspects of the project, such as projected costs, revenues, and returns on investment.

**Organizational analysis:** This step involves evaluating the organizational aspects of the project, such as the management structure, resource availability, and project timeline.

**Risk assessment:** This step involves identifying and evaluating the potential risks and challenges associated with the project.

**Conclusion and recommendations:** This step involves summarizing the findings of the study and providing recommendations on whether or not to proceed with the project.

The outcome of a feasibility study is a report that summarizes the findings and recommendations, it will help the project sponsor, stakeholders, and the project team to decide whether to move forward with the project or not and if so, how to plan and execute it.

### 4.7 Gantt Chart

To complete this project, I have some roles and responsibility. And if we want to complete this within due time, we should maintain the roles and responsibility.

| SL | **Task Name** | Start | Finish | Duration | 1/09/2022 | 1/10/2012 | 1/11/2012 | 1/12/2012 | 1/12/2012 | 1/10/2022 | 1/01/2023 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | **Initial idea** | 1/09/2022 | 14/09/2022 | 2 weeks | | | | | | | |
| 2. | **Feasibility study** | 16/10/2022 | 30/10/2022 | 2 weeks | | | | | | | |
| 3. | **Requirement Analysis** | 1/11/2022 | 14/11/2022 | 2 weeks | | | | | | | |
| 4. | **Confirming feature** | 15/11/2022 | 22/11/2022 | 1 week | | | | | | | |
| 5. | **Deciding UI, Navigation & Graphics** | 23/11/2022 | 7/12/2022 | 2 weeks | | | | | | | |
| 6. | **System design** | 8/12/2022 | 14/12/2022 | 5 weeks | | | | | | | |
| 7. | **Development** | 15/12/2022 | 22/12/2022 | 5 weeks | | | | | | | |
| 8. | **Testing** | 23/12/2022 | 7/01/2022 | 2 weeks | | | | | | | |
| 9. | **Documentation** | 8/01/2023 | 10/01/2023 | 3 weeks | | | | | | | |

# Chapter 5

# System Development Methodology

## 5.1 Overview

'Job Finding Service' is an android application. Which will be very helpful for job seekers and recruiters. Besides, recruiters can order multiple services through this application. Job seekers can inform about their brand new service to the recruiters with details.

## 5.2 Methodology

The work flow for our system is here:

Our main task is to co-operate job seekers to find jobs and to let recruiters recruit worker for their needed jobs. Two types of users can login in our application. They are –

1. Recruiter
2. Job Seeker

First and most precious point is job seekers. They are the soul of this application. A shopkeeper can make account easily by registering their name, user name, own phone number, password, giving location is also important for transaction. When they registered into application, There has particular panel of every user. They are-

### 5.2.1 Recruiters Panel

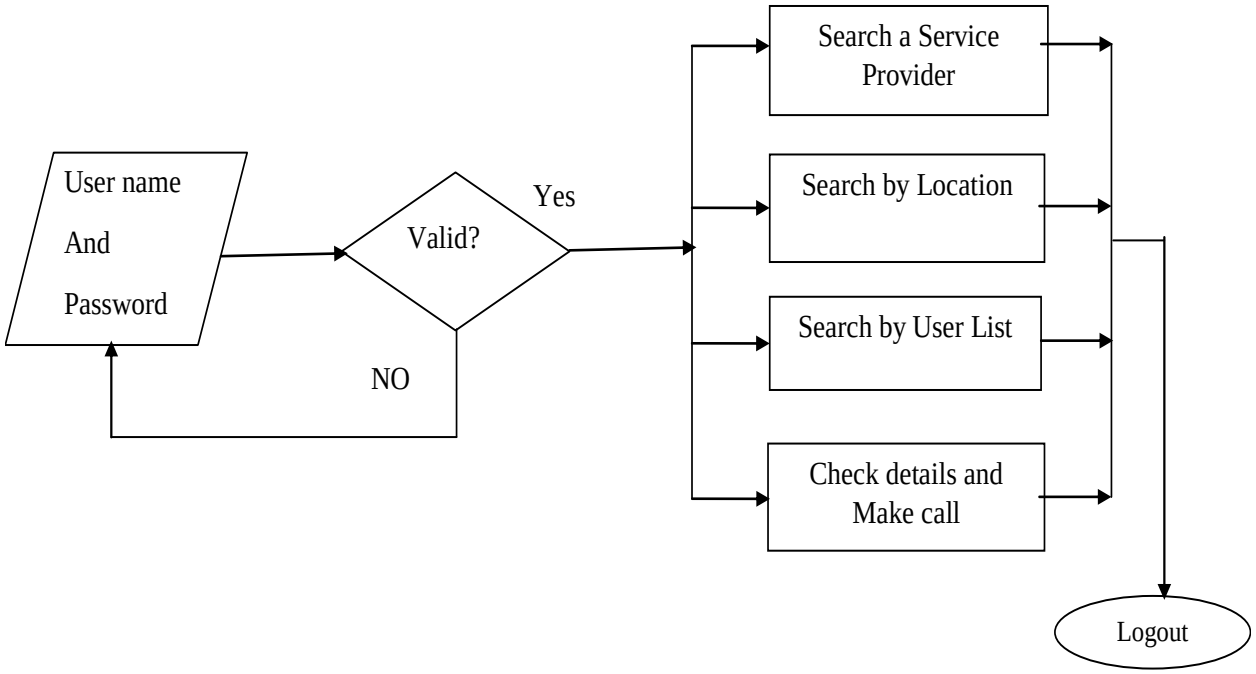
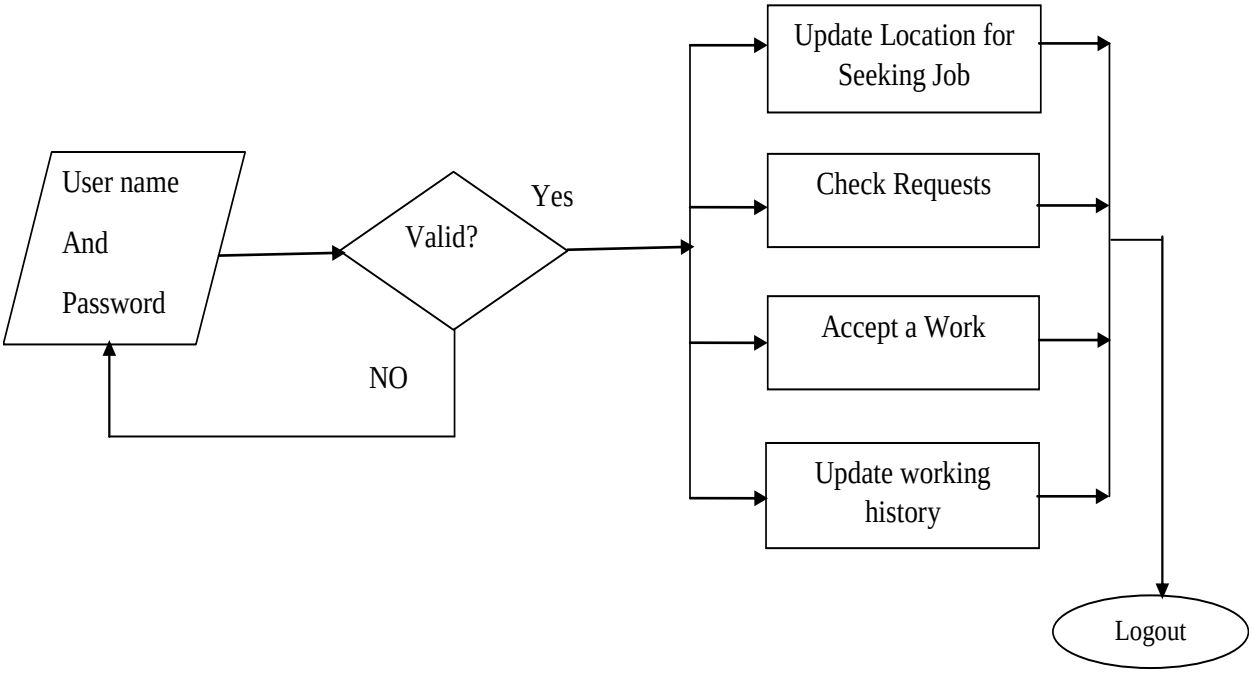



Fig (5.1): Recruiters Panel

### 5.2.2 Job Seekers Panel




Fig(5.2): Job Seekers Panel

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# CHAPTER 6

# METHODOLOGY

Methodology is basically the systematic and theoretical analysis or study in a particular activity or area of study. The term ‘methodology’ is widely used across in industries and scientific discipline, the techniques are used to research in a particular area of study or to accomplish particular project. In simpler way the term ‘methodology’ can be defined as the system of doing, teaching and studying something. Including multiple methods can also be considered as methodology, , each methods as applied to various facets of the whole scope of the methodology. Research are basically divided into two parts such as qualitative research and quantitative research. An organization can tackle the risk in an integrated manner, comprehensively and systematically with the help of Project Management Methodology. This methodology is also beneficial at various levels such as strategic, tactical and operational levels.

## 6.1 Process Model

In general definition, Process Model are the collection of processes of same nature which are classified together into a model. Basically process is a condition which operates and changes the state of an object. By using process model activities of a software/app can be shown graphically. For getting a good and beneficial product the process has to be good too. So, we need to process the model because processing in more important than the product.

## 6.2 Recent trends in Software Process Model

1. Waterfall Model.
2. Incremental Model
3. Spiral Model
4. Iterative Development Model
5. Agile Model
6. Prototyping:
    a) Throw away prototyping process model.
    b) Evolutionary prototyping process model.

## 6.3 A particular Process model for “Job Finding Service”

While developing the “Job Finding Service”, I have followed Water Fall model.

## What is Waterfall Model?

Waterfall Model is a consecutive or sequential way where each activity arranged in linear order and each process is represented in separate phase. In Waterfall Model, It is must to plan and schedule all the activities before starting to work on them. Waterfall Model is also known as Linear Sequential Life Cycle. As Waterfall Model follow the sequential order so we can forward to next step of development or testing if the previous step is successfully completed. If all the requirements are clear then Waterfall Model is very successful. In Waterfall Model, the testing starts when the development is completed. Waterfall Model is more popular than other models for Software Development Life Cycle. As water falls towards down, similarly in waterfall model the testing and development is carried out in downward mechanism. In Waterfall Model if one step is completed then only the development process of next step can be started. It can not revet back to previous stage to perform any changes. So for working with waterfall model we must have very clear requirements. Particularly Waterfall Model that is shown in bellow:

**Phases in Waterfall Model-**

- Requirements
- Analysis
- Design
- Implementation
- Testing
- Deployment
- Maintenance

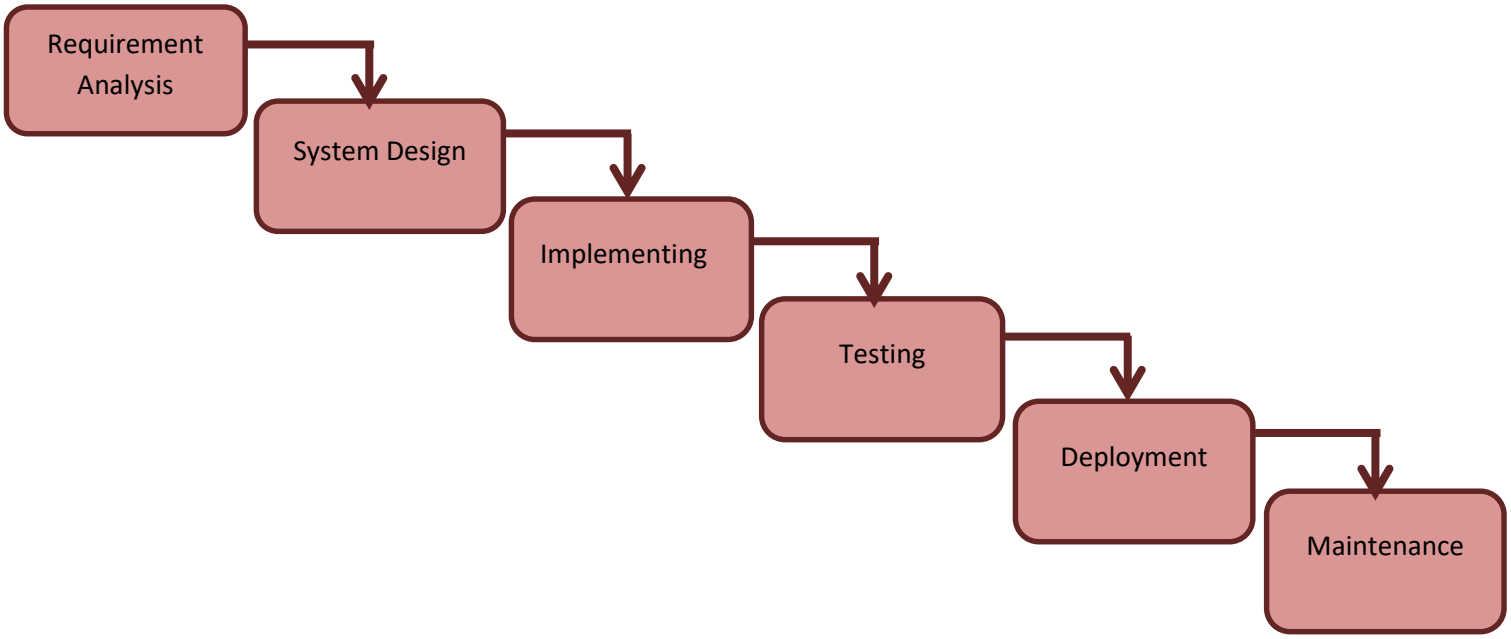



**Figure 6.1 : Waterfall Model Process**

The Waterfall model is a linear approach to software development in which progress flows in a downward direction (like a waterfall) through the phases of requirements gathering and analysis, design, implementation, testing, deployment, and maintenance.

Some key requirements of the Waterfall model include:

**Well-defined and documented requirements:** The Waterfall model relies on a detailed understanding of the requirements for the software being developed. These requirements should be clearly documented and agreed upon before the project begins.

**Detailed design:** The design phase of the Waterfall model should produce a detailed specification of the software being developed. This includes both functional and non-functional requirements.

**Strict change control:** The Waterfall model assumes that requirements are fixed and cannot be changed once the project has begun. This means that any changes to the requirements must be carefully controlled and managed.

**Rigorous testing:** The Waterfall model places a strong emphasis on thorough testing to ensure that the software meets the specified requirements.

**Formal reviews:** The Waterfall model typically includes formal review points at the end of each phase to ensure that the work is on track and meets the necessary quality standards.

**Good project management:** The Waterfall model requires good project management to ensure that the project stays on schedule and within budget. This includes effective communication, risk management, and resource management.

**When Waterfall Model should be followed:**

- If project is small and requirements are very clear.
- For low budget projects.
- When changes in the project are stable.
- Can set deadlines for each stage of development and a product can proceed through the development process model phases one by one.
- Easily understandable and explainable phases and thus it is easy to use.
- Easy to manage due to rigidity of model.

# CHAPTER 7

# SYSTEM ANALYSIS

A service finding application system is a software system that helps users locate and identify services in a specific area. The analysis of such a system would involve evaluating its functionality, performance, and usability, as well as its ability to provide accurate and up-to-date information about the services it lists. Additionally, the system's security and data privacy features would also be analyzed to ensure that user information is protected. Other factors that may be considered in the analysis include the system's scalability and its ability to integrate with other systems or platforms. Overall, the goal of the analysis would be to assess the effectiveness of the service finding application system in meeting the needs of its users and providing them with a positive user experience.

### 7.1 Proposed Methodology

The methodology used in this app is given below:

- Initially, Salesman and shopkeeper can register with required information..
- Shopkeeper can view all products.
- Shopkeeper can order product.
- Salesman will check and deliver product orders.
- Vendor will check all purchase and sell history.

## 7.2 Data flow of Job Finding Service App

A service finding application typically involves several different data flows, including:

**Data input:** This flow involves collecting and inputting information about services, such as their location, contact information, and types of services offered. This data may be entered manually by the administrator of the application or automatically through integration with other systems or platforms.

**Data storage:** Once the data is inputted, it is stored in a database for easy retrieval and access by users. The data storage flow also includes maintaining and updating the data, as well as ensuring data integrity and security.

**Data retrieval:** Users search for services by inputting specific criteria such as location and type of service, the application searches the database for matching services and presents the results to the user.

**Data output:** The final data flow is the output of the information to the user. The application displays the information in a user-friendly format and allows the user to view more details, contact the service provider, or even book the service.

**User Feedback:** Users can also provide feedback, ratings, and reviews of the services they used. This data can be used to improve the service list and to provide better suggestions for future users.

**Data Analysis:** The data collected can be analyzed to understand the service demand, user preferences and patterns, the most popular services and locations, and other insights that can help to improve the application and the services offered.

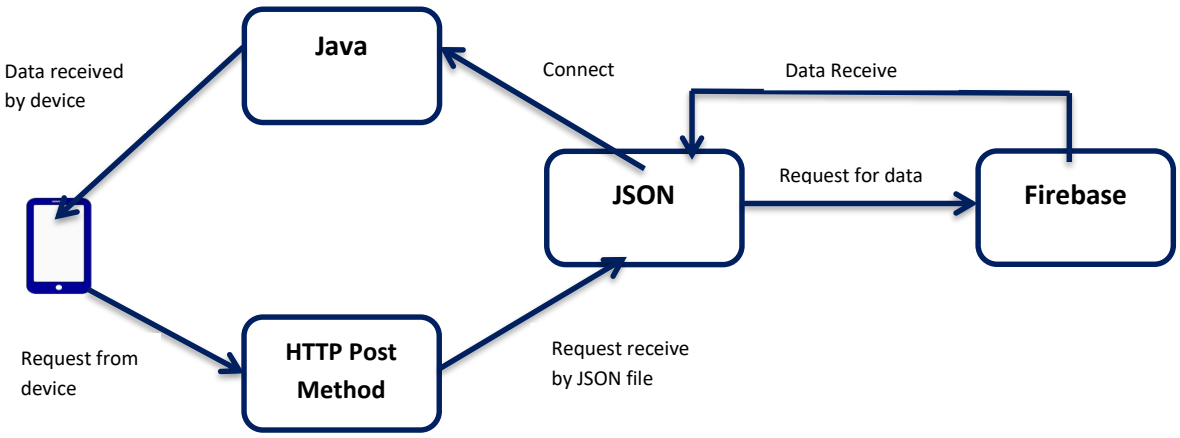



**Figure 7.1: Data Flow of Job Finding Service App**

According to the figure 5.1 in time of data sending first android device will generate a http POST request towards JSON. Then JSON will make a request to the Firebase server and JSON receive the result from the server. The result will be converted into a JAVA object and the JAVA object will be given to the android device. Thus, the data flow process will be occurred due to any valid request.

## 7.3 Data view

I tried to represent all of the user data in an efficient way **Job Finding Service** APP. Which is very easy to find out the desired product of particular company? Shopkeeper can order and purchase product from particular company. They can check product by seeing image and price of all products. Then can order product as their wishes. Then Shopkeeper can easily confirm their order. After that salesman can delivery product to that particular shopkeeper.

### 7.4 Security

Security is an important aspect of any service finding application. Here are a few ways in which a service finding application can be secured:

**User authentication:** Users should be required to create an account and log in before they can access the application's features. This helps to ensure that only authorized users can access the service information and also allows the application to keep track of user activity.

**Data encryption:** Sensitive data, such as user personal information and service provider information, should be encrypted to protect it from unauthorized access.

Secure communication: All communication between the user's device and the application's servers should be done over a secure connection, such as HTTPS, to prevent eavesdropping and tampering.

**Access control:** The application should have an access control system in place to ensure that only authorized users can access, edit, or delete service information.

**Regular security updates:** The application should be regularly updated to address any security vulnerabilities that may be discovered.

**Regular backups:** Regular backups of the data should be done in case of unexpected data loss or a security breach.

**Incident Response plan:** A incident response plan should be in place to manage and respond to any security incidents that may occur.

**Penetration testing:** Regularly conducting penetration testing to identify any potential security weaknesses in the application

By implementing these security measures, a service finding application can help to protect user information and data, and maintain the trust of its users.

## 7.5 A general Model of software design process

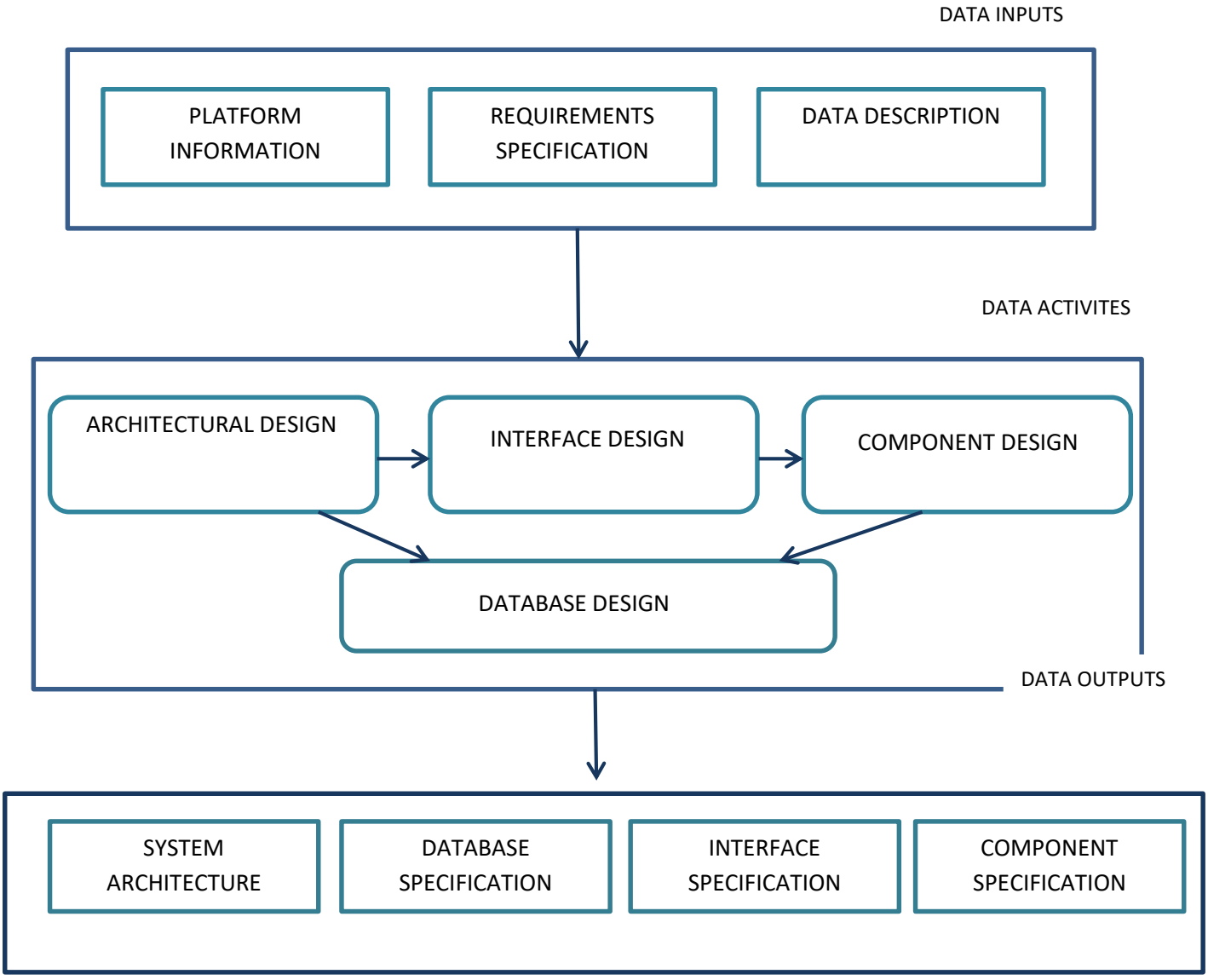



**Figure 7.2: A general Model of software design process**

## 7.6 Flow Chart

A flowchart can be a useful tool for visualizing the data flow and processes of a service finding application. Here is an example of a simple flowchart for a service finding application:

### 7.6.1 Flow Chart for Recruiter

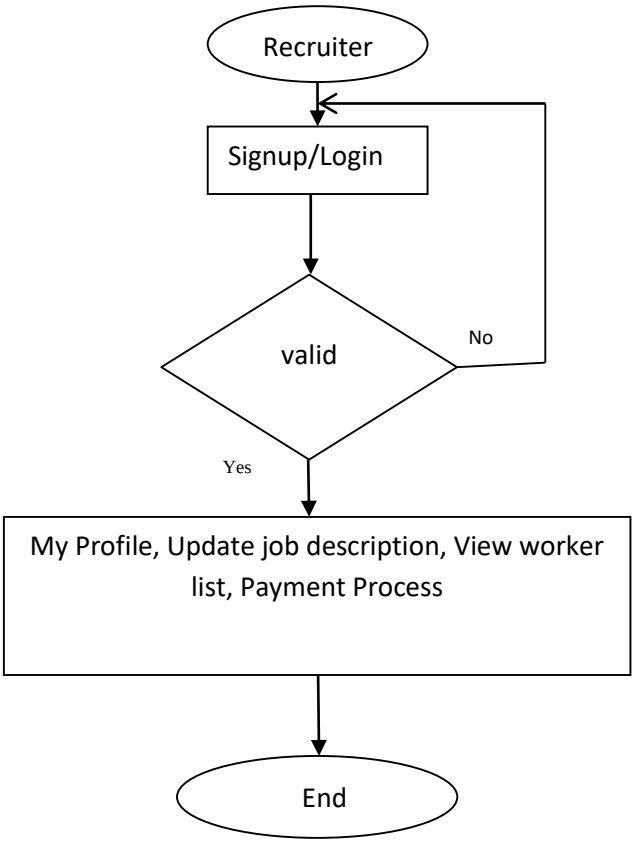



**Figure 7.3: Flow Chart for Recruiters**

## 7.6.2 Flow Chart for Job Seekers

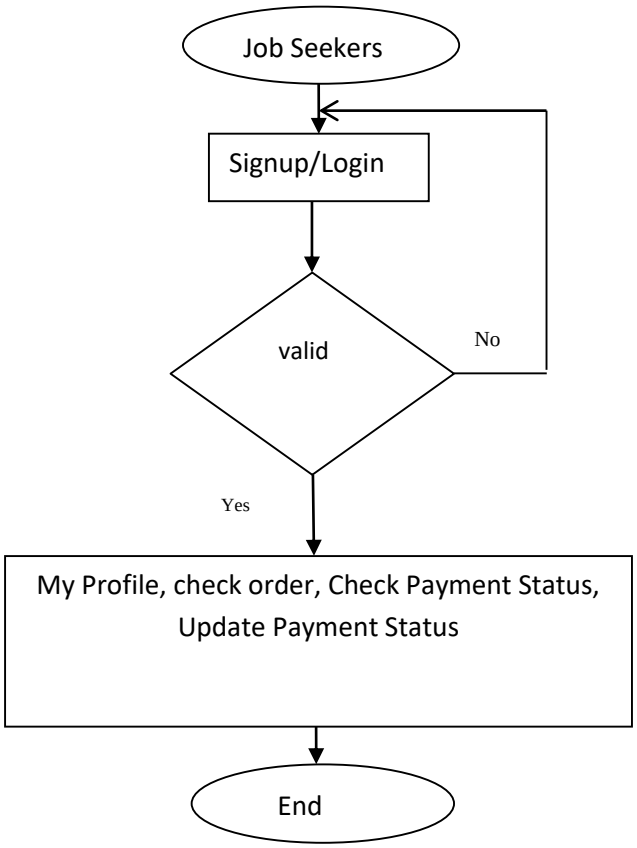



**Figure 7.4: Flow Chart for Job Seekers**

## 7.7 Use Case Diagram of Job Finding Service

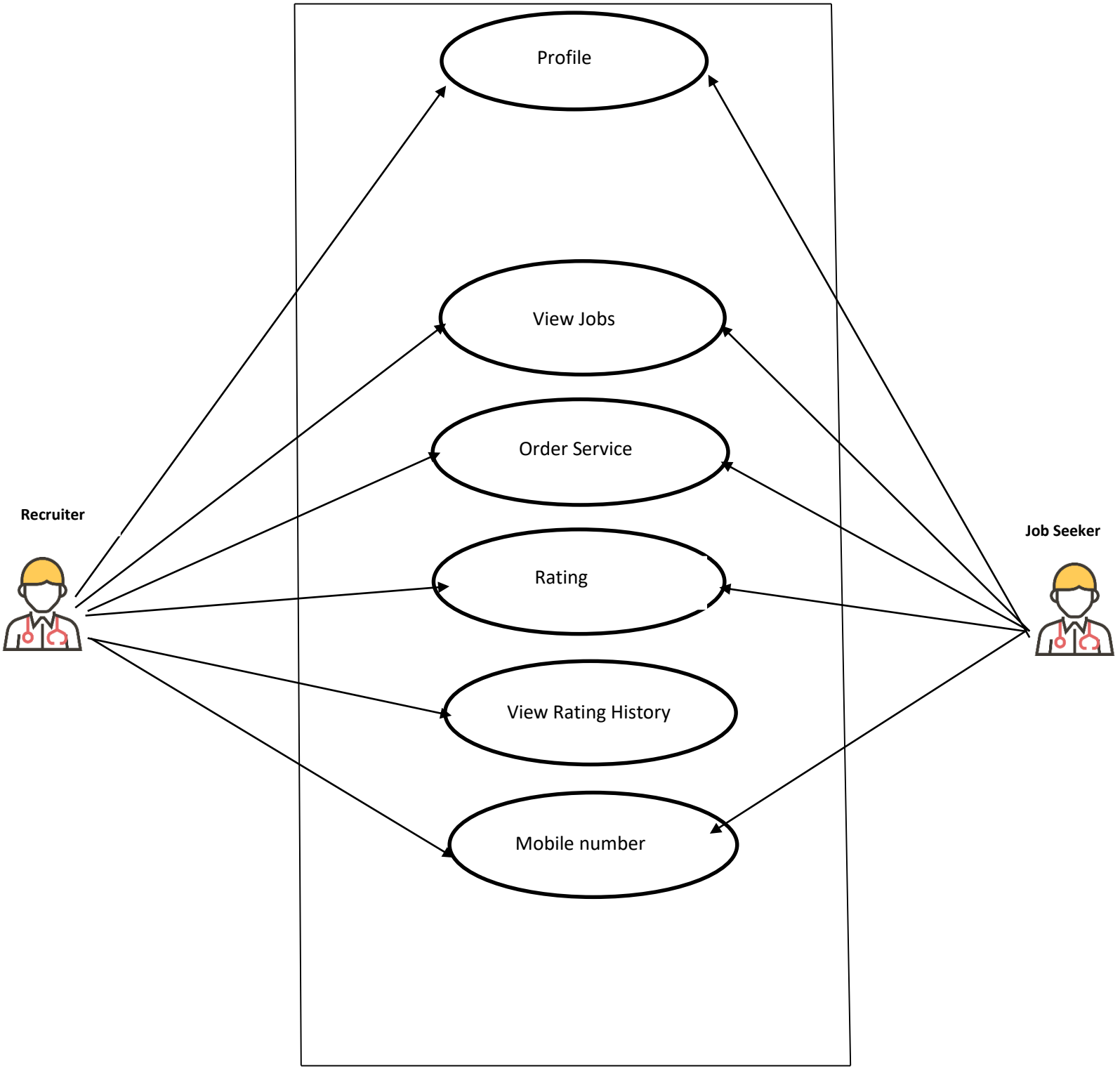



**Figure 7.5: Use-case of Job Finding Service**

## 7.8 Use Case of Job Finding Service App (In Brief)

A service finding application can be used in a variety of scenarios, here are a few examples of use cases:

**Finding local services:** A user can search for services in their local area, such as restaurants, hair salons, or car repair shops, and view information such as location, contact information, and customer reviews.

**Booking services:** A user can also book services directly through the application, such as reserving a table at a restaurant or scheduling an appointment with a service provider.

## 7.9 Entity Relationship Diagram of Job Finding Service

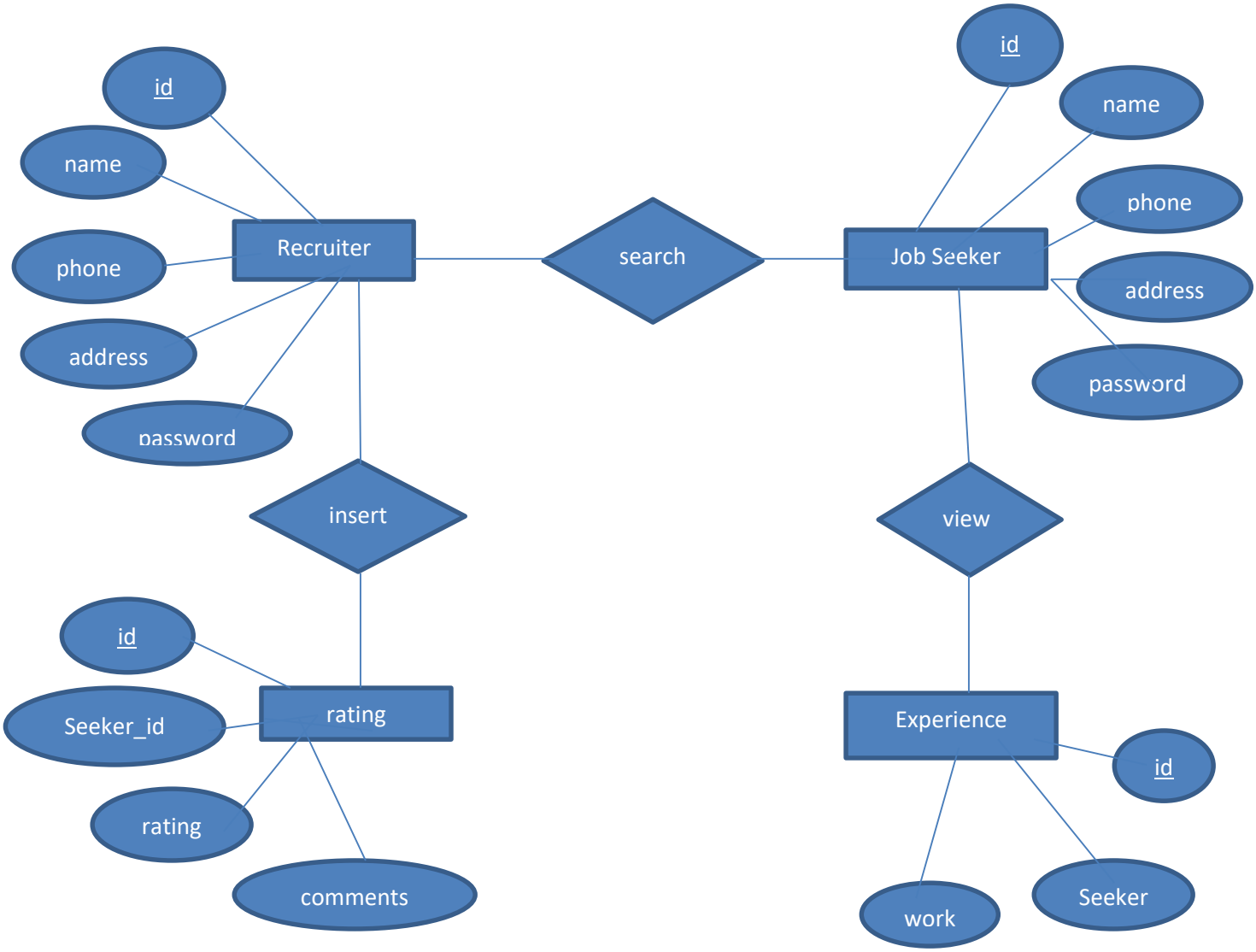



**Fig 7.6: E-R Diagram of Job Finding Service**

## 7.10 Entity Relationship Diagram of Job Finding Service (In Brief)

From figure 5.9, we see there are 7 entities namely “recruiter”, “job_seeker”, “rating”, ”experience” .Each of these entities have different attributes. The entities are related to each other by the relations “Insert”,”order”,“View” and “Request”.

## 7.11 MySQL

MySQL is most commonly used for Web applications and for embedded applications and has become a popular alternative to proprietary database systems because of its speed and reliability. MySQL can run on UNIX, Windows and Mac-OS. MySQL is a client-server system runs over TCP/IP network. Users can access the server via a client program. A MySQL database server contains one or more databases

## 7.12 Activity diagram

An activity diagram is a type of diagram that is used in Unified Modeling Language (UML) to represent the flow of activities in a system. It is a graphical representation of the flow of actions within a system, and is typically used to model a business process or workflow. Activity diagrams consist of a series of activities represented as rounded rectangles, connected by arrows that indicate the flow of control between activities. They can also include decision points, represented as diamonds, which split the flow of control based on a decision or condition. Additionally, activity diagrams can include swim lanes, which can be used to group activities and indicate who is responsible for performing them. High level understanding of the system's functionalities.

# CHAPTER 8

# DESIGN AND IMPLEMENTATION

## 8.1 Overview

In this chapter, I have provided the experimental result analysis of our developed system for both web and android application. I have provided snapshots of every step that an admin and users can go through. The obtained results for both web and android application are graphically showed in the next sections.

I tried to represent all of the user data in an efficient way **Job Finding Service** APP. Which is very easy to find out the desired product of particular company. Shopkeeper can order and purchase product from particular company. They can check product by seeing image and price of all products. Then can order product as their wishes. Then Shopkeeper can easily confirm their order. After that salesman can delivery product to that particular shopkeeper.

Our main task is to co-operate job seekers and recruiters. Two types of users can login in our application. They are –

1. Recruiters
2. Job Seekers

First and most precious point is shopkeepers. They are the soul of this application. A shopkeeper can make account easily by registering their name, user name, own phone number, password, giving location is also important for transaction. When they registered into application, first vendor have to accept their registration because valid information is effective in this situation.. And that's why they need to registered themselves with an active phone number. If vendor reject the registration request that means that shopkeeper's information was not valid.

## 8.2 Android Application

- Job Finding Service app starts with Login screen. If user already signed up before then he doesn't need to sign up again. He will just put his data and login into his panel.
- If he does not signed up before then he has to sign up with required information then he can login in his panel.

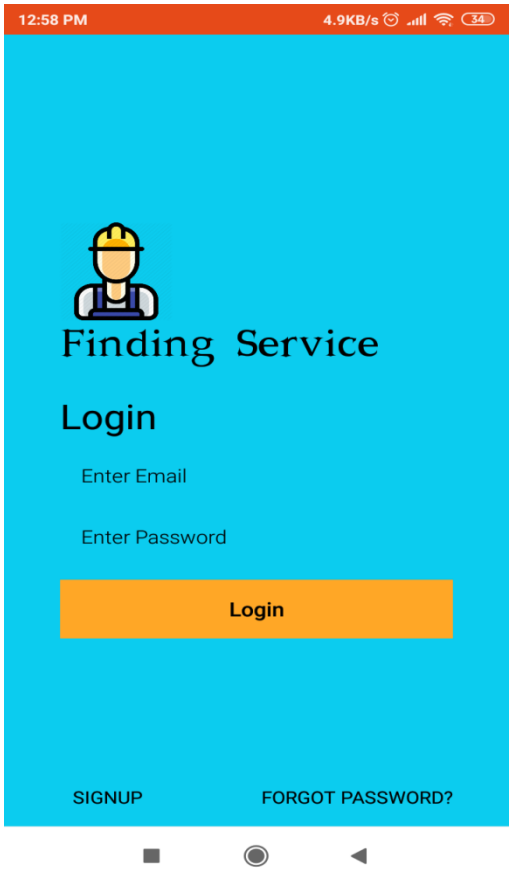



**Fig: Login Panel**

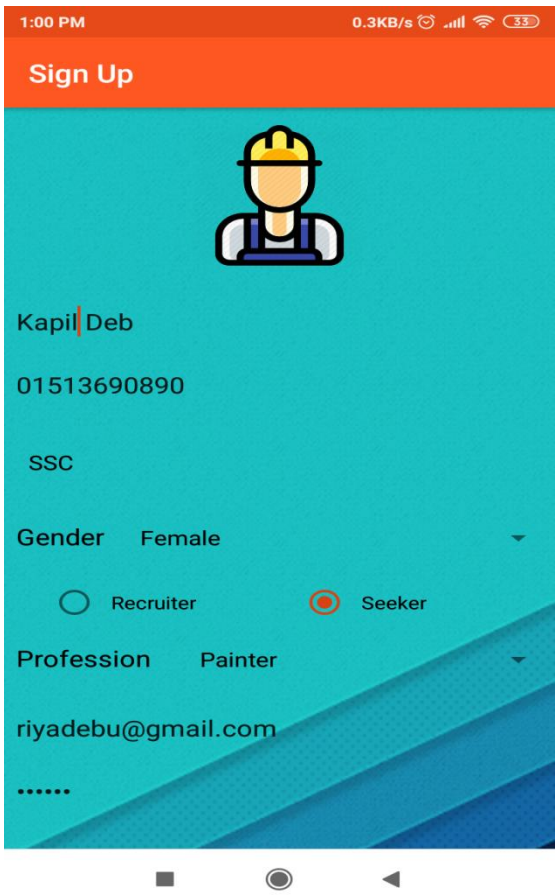
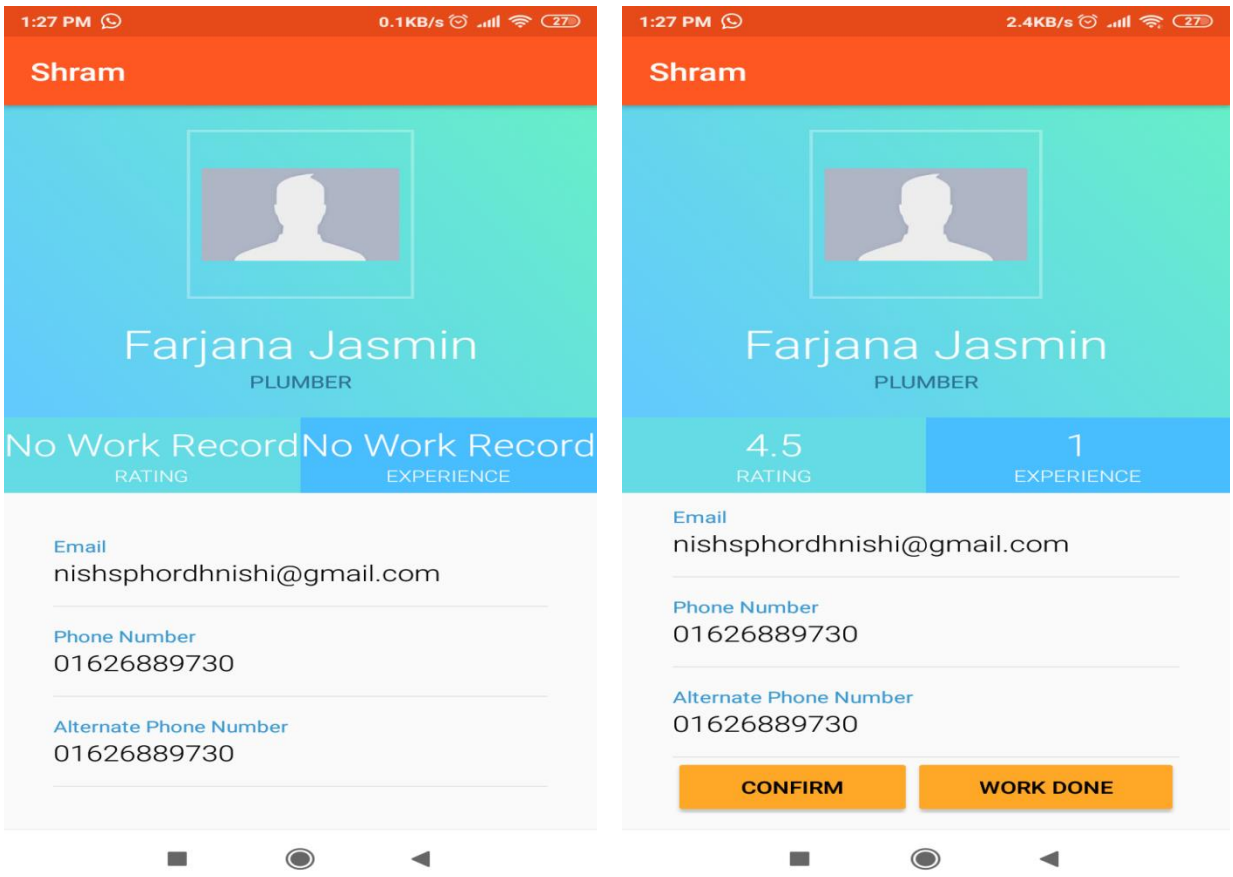



**Fig: Sign Up**

### 8.2.1 Job Seeker Panel:



### 8.2.1 Recruiter Panel:

- ✓ Search Seeker
- ✓ Can see own profile.
- ✓ Check seeker experience
- ✓ Review


Fig: Recruiter Panel

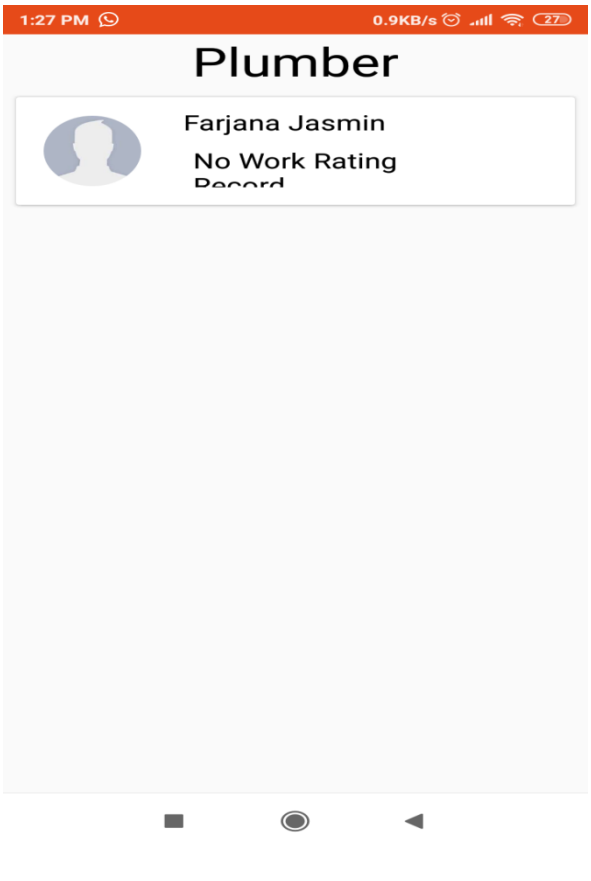
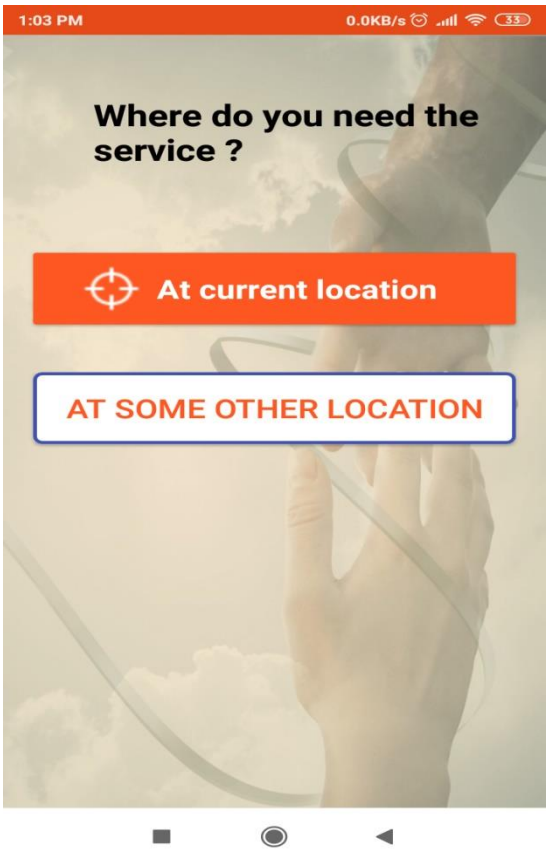



Fig: Recruiter Panel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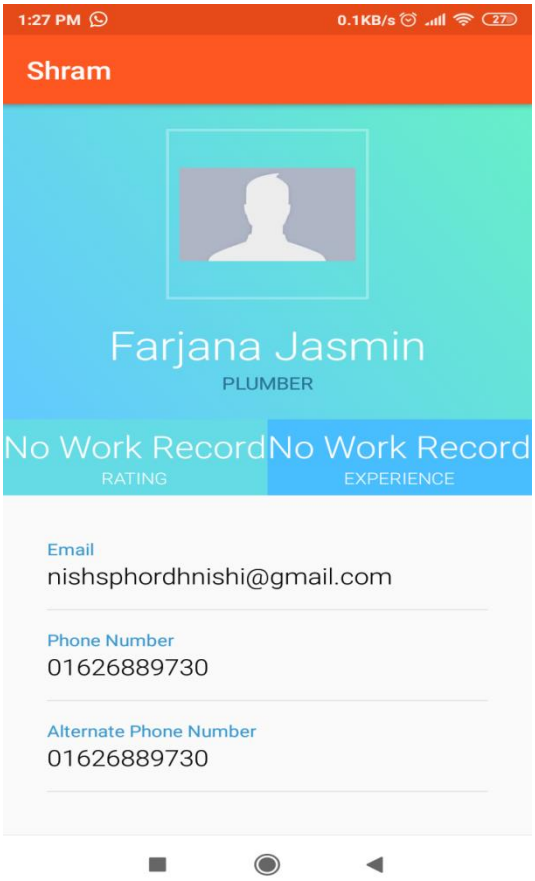
Where do you need the service ?
At current location
AT SOME OTHER LOCATION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Shram
Farjana Jasmin
PLUMBER
No Work Record
RATING
No Work Record
EXPERIENCE
Email
nishsphordhnishi@gmail.com
Phone Number
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Alternate Phone Number
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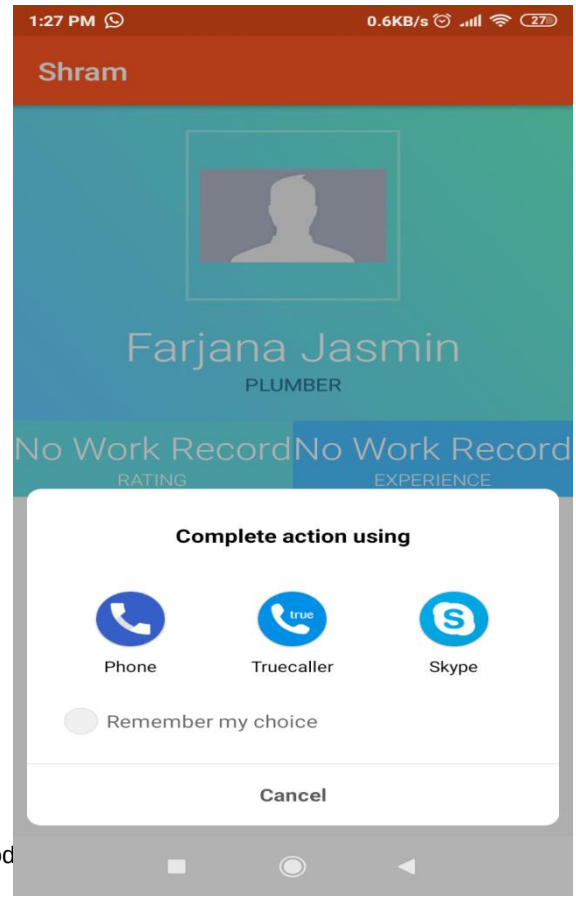
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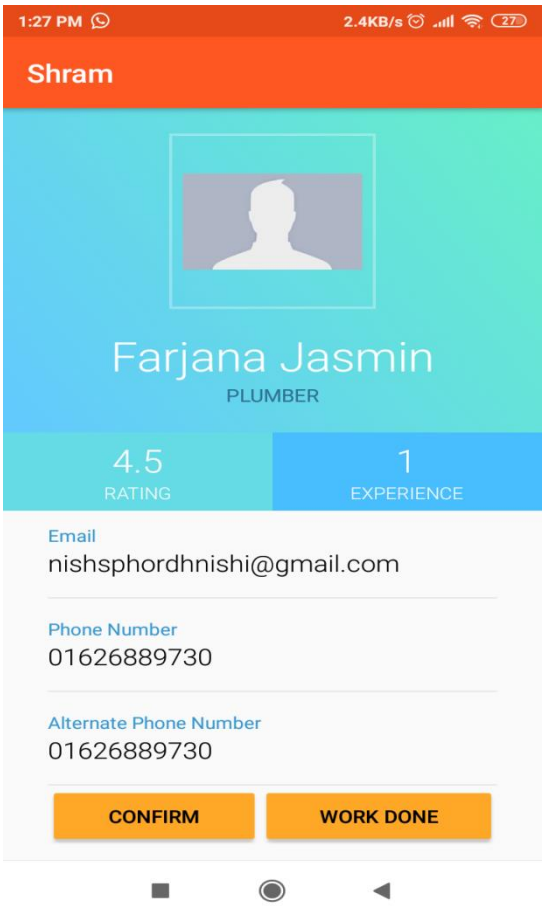
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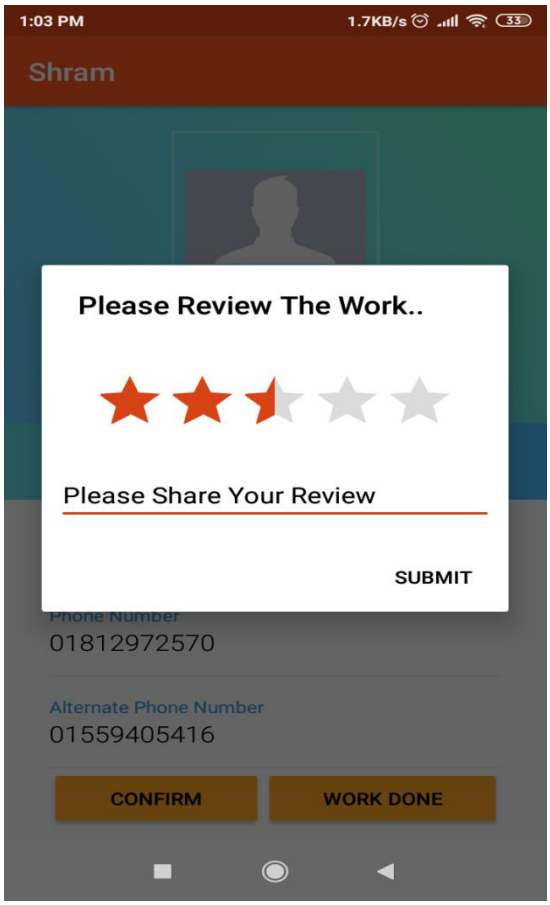


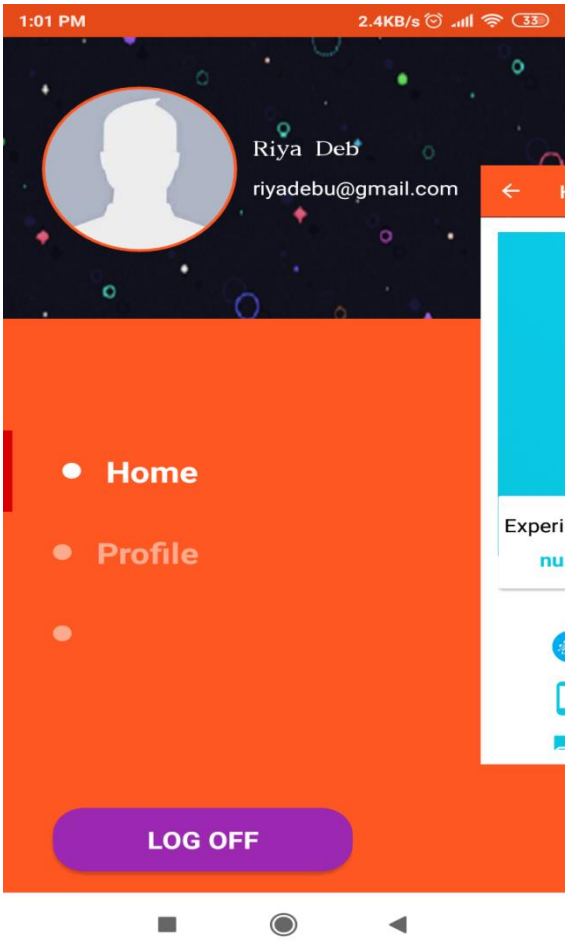

# CHAPTER 9

# TESTING

Software testing is the process of evaluating a software application or system to determine if it meets the specified requirements and to identify any defects or issues. The goal of testing is to ensure that the software is fit for its intended purpose and that it functions as expected. There are several types of software testing, including unit testing, integration testing, system testing, and acceptance testing. Each type of testing has a specific focus and is used at different stages of the software development process. For example, unit testing is typically done during the development process to test individual units of code, while acceptance testing is done at the end of the development process to ensure that the software meets the needs of the end user.

Automated testing is a technique that uses software tools to perform testing, rather than manual testing. It is more efficient than manual testing and can be more accurate, as it eliminates human error.

Test-Driven Development (TDD) is an approach to software development in which tests are written before any code is written. The tests are used to guide the development process and ensure that the code meets the requirements.

## 9.1 Objectives of Testing

There have some different goals and objectives in software testing. The main objectives are as follows:

1. Meets the requirements that guided its design and development.
2. Works as expected.
3. Can be implemented with the same characteristics.
4. To prevent defects.

## 9.2 Types of Testing

The techniques for testing application are given below:

- Unit testing
- Black box testing
- White box testing

### 9.2.1 Unit Testing

Unit testing is a type of software testing that focuses on individual units of code, such as functions or methods, in isolation from the rest of the application. The goal of unit testing is to ensure that each unit of code functions correctly and as intended.

Unit tests are typically written by developers as they work on the code, and they are typically run automatically as part of the development process. Unit tests are usually written using a testing framework, such as JUnit for Java or NUnit for .NET, which provides a set of tools for creating and running tests.

Unit tests are usually small and focused, testing a single unit of code at a time. They test the code's behavior in different scenarios, such as normal input, boundary conditions, and error conditions. When a test fails, it helps the developer to identify and fix the issue quickly.

Unit tests are typically written before the code is written, and they are used to guide the development process. This is known as Test-Driven Development (TDD). The developer writes a test that describes the desired behavior of the code, then writes the code to pass the test.

Unit testing is an important part of the software development process because it helps ensure that the code is correct, maintainable, and easy to change. It also helps to detect errors early in the development process, when they are less expensive to fix.

### 9.2.2 White Box Testing

White box testing, also known as structural testing or glass box testing, is a type of software testing that focuses on the internal structure and implementation of the code. It is done by testing the code path and logic structure, and it is intended to ensure that all the code has been executed and that all possible branches and conditions have been tested.

- All the statements within the code have a test case associated with it such that each statement must be executed at least once during the testing cycle.
- Decision directions executed at least once during the testing life cycle.
- Conditions in a specific decision tested for proper working at least once.
- Combination of the possible conditions within a specific decision for all the decisions tasted.

### 9.2.3 Black Box Testing

Black box testing is a method of software testing that examines the functionality of an application without peering into its internal structures or workings. It is also known as functional testing or behavioral testing. The tester is only concerned with the inputs and outputs, and not the internal processes. This approach allows the tester to focus on the user's perspective, and ensure that the system behaves as expected. This type of testing is typically done by QA team with minimal technical knowledge of the internal code. This type of testing is based entirely on the software requirements and specifications. It is done by the following tests:

- Initially requirements and specifications of the system are examined.
- Software tester constructs test cases with the selected inputs.
- Software tester compares the actual outputs with the expected outputs.
- Defects if any are fixed and re-tested.

## 9.3 Validation Check:

## 9.3.1 Login-

A login test is a type of functional test that is used to verify that a user can successfully log in to a system using a valid username and password. This test is used to confirm that the system's authentication and authorization mechanisms are working correctly. The test may include scenarios such as successful login, failed login due to incorrect credentials, and locked or disabled accounts. It can also include testing for forgotten passwords and two-factor authentication. This type of test is typically done manually or by automated testing tools.

## 9.3.2 Upload Job Description-

To add job, the vendor has to go to the option “Upload Job”. This upload job panel has six fields. If any of these fields are kept empty, then a toast message will appear. The toast messages are different for each field.

## 9.3.2 Apply Job-

When job seeker apply for jobs recruiter will get workers information. Based on the worker rating recruiter can approve worker for the jobs

# CHAPTER 10

# CONCLUSION

Our Job Finding Service Web Application is really reliable and secure application for Job Finding Service field. It is a complete automation of operations. It is also have a very user friendly interface requiring minimal learning and IT skills. One of the most satisfactory feedbacks of our system is it save so much time and energy. It can also reduce man power and best use of men power. And also by using this system one can easily can have a startup business of their own.

## 10.1 Limitations

- In our system there is no auto payment system. In the future I am planning to build a system with auto payment system.

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- https://play.google.com/store/apps/details?id=com.foodfex

## Finding Home service

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