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Department of Software Engineering, FSIT

SE-431 Project / Thesis

Project Documentation

Mobile Jobs

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Approval

This Project title “Mobile Jobs”, submitted by Md Tanvirul Islam (181-35-348) to the Department of Software Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Software Engineering and approved as to its style and content.

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DECLARATION

It hereby declares that this project has been done by us under the supervision of Ms. Syeda Sumbul Hossain, Lecturer (Senior Scale), Department of Software Engineering, Daffodil International University. It is also declared that neither this project nor any part of this has been submitted elsewhere for award of any degree.

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We would like to express my extreme sincere gratitude and appreciation to all of my teachers of Software Engineering department for their kind help, generous advice and support during the study.

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1 INTRODUCTION

1.1 Purpose

Through this report, the extend “Mobile Jobs” will get a great thought. This document is primary reason is given a great thought for client and their work. This archive will highlight the benefits of the venture. This report will talk about the prerequisites, design, implementation and testing.

1.2 Project Overview

We belong to modern technology. Every place is using technology. If we can not properly use this technology. it is hard to grow up. Mobile Jobs system is a mobile application. This application can connect between worker and client. Every person has different skills. If someone is an expert in Electrician or Car cleaning they can register our system and we show his/her profile at the nearest location. who is searching electrician or cleaner. The main aim of this project communicates with workers and those who are interested in hiring workers.

1.2.1 Problem Statement

Sometimes we are shift from one place to another new place for some reason like job purpose, business purpose, and some others. At that time we are facing some home material issues like Electric, Home clean. Some time face shipment issues like Can not get the nearest Truck for shift our home material. If someone is suddenly sick to the emergency ambulance. Our application help to find the nearest Electrician, Ambulance, rent a car, Cleaner, And some other workers or Vehicle. Our applications help to communicate with each other.

1.2.2 Goals

The main goal to the cross-platform mobile applications. Because of largest people are smartphone users. And they are comfortable to use applications. Most of the mane is online. But people can not find their nearest skills full people. So I think this project “Mobile Jobs” is help to a large number of people.

1.3 Project Scopes

Through this system. you can easily find your needed worker and emergency services. If you feel have no time to search for workers you can easily find your needed people. If you feel to care about your home Accessories you can help with our application.

1.4 Stakeholders

There are three types of stakeholders in “Mobile Jobs” project. Such as: 1.Admin
2.Worker
3.Hire or Client

Admin: Admin is the main role to sort out user problems and give support.If any type of user faces a problem with a personal account at this problem admin gives support. And all types of user reports manage by the admin.

Worker : Worker main part at first registration in our application then complete profile if profile are not complete worker profile are not ready for work. When workers are available for work on active status. if face any problem contact with our support team. **Hire or Client :** Client is the main role is similar to the worker but a client can see the active worker in the nearest location.But the worker can not see.

1.5 Project Schedule

Activites	Week	Total Week
Analysis	Week-1,Week-2	2
Problem detection	Week-2,Week-3	2
Requirement analysis	Week-4	1
Low-fidelity Design	Week-5	1
Design specification	Week-6, Week-7	2
Database design	Week-8 ,Week-9	2
Implementation	Week-10,Week-11,Week-12, Week-13	4
Testing	Week-15	1
Delivery	Week-17	1

1.5.1 Release Plan/Milestone

Version	Feature	Date
V0.00	System design,active worker list,message with worker.	02-01-2022
V0.01	Payment method,NID verification	04-04-2022

2 System Analysis

2.1 Requirement Analysis

Requirement analysis is the process of helping users with application requirements. demand analysis Tasks involved in determining software requirements, mainly including Objections and requirements of different customers. Needs analysis needs to be done The quality of the application.

2.2 Requirement Gathering

There are many strategies for collecting requirement gathering, such as brainstorming, questionnaires, interview, and customer observation.

2.3 Feature

- Live chat with a worker.
- List of nearest active worker.
- Admin delete all user information.
- Account verification.
- Profile rating system.
- Real-time distance between the worker and hire.
- Reset password with email and phone number.
- Bangladesh all over services.
- Email and phone number verification.
- Show only active workers.
- Search needed worker.

2.4 Requirements Specification

2.4.1 Functional Requirement

Functional requirements are mandatory for the any system. For this system functional requirements are mentioned below.

2.4.2 Non-Functional Requirement

For this system non-functional requirements are mentioned below.

Table 1: Login User

ID: FRQ-01
Requirement Name: Login User
Description: User can input valid email and password then user successfully login.
Stockholders: Worker, Client or Hire

Table 2: Logout User

ID: FRQ-02
Requirement Name: Logout User
Description: If the user is logged out then user session detail clear and backhome.
Stockholders: Worker, Client or Hire

Table 3: Registration User

ID: FRQ-03
Requirement Name: User Registration
Description: If User input information is valid then user successfully registered.
Stockholders: Worker, Client or Hire

Table 4: View Worker information

ID: FRQ-04
Requirement Name: View worker profile information
Description: Can see information. If client or hire want to see active worker information.
Stockholders: Worker, Client or Hire

Table 5: Search specific worker

ID: FRQ-05
Requirement Name: Search active worker
Description: If want to search worker. Registered user can search worker like Electrician.
Stockholders: Hirer

Table 6: Message

ID: FRQ-06
Requirement Name: Message between hirer and worker
Description: If worker hirer and worker fell important to contact can message each other.
Stockholders: Hirer

Table 7: Privacy

ID: FRQ-01
Requirement Name: Privacy
Description: System has to protect user data and confidential information.
Stockholders: All User

Table 8: Data Capacity

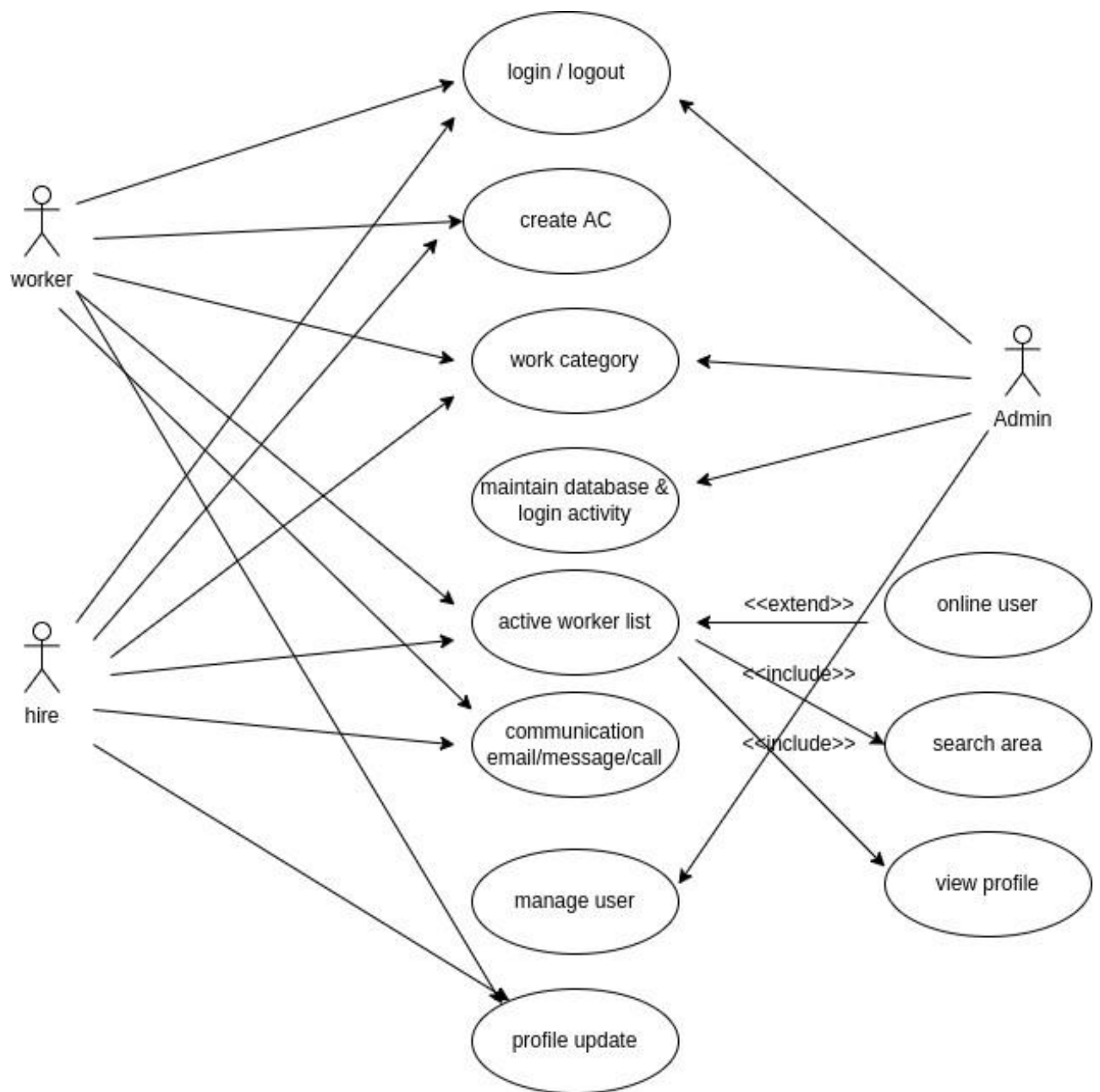
ID: FRQ-02
Requirement Name: Data capacity
Description: This system need to handle thousands of data.If need more storage can extend.
Stockholders: All User

Table 9: User interface requirement

ID: FRQ-03
Requirement Name: Data capacity
Description: System should be user friendly for all users.Available dark and white theme.
Stockholders: All User

2.5 Use case of proposed system

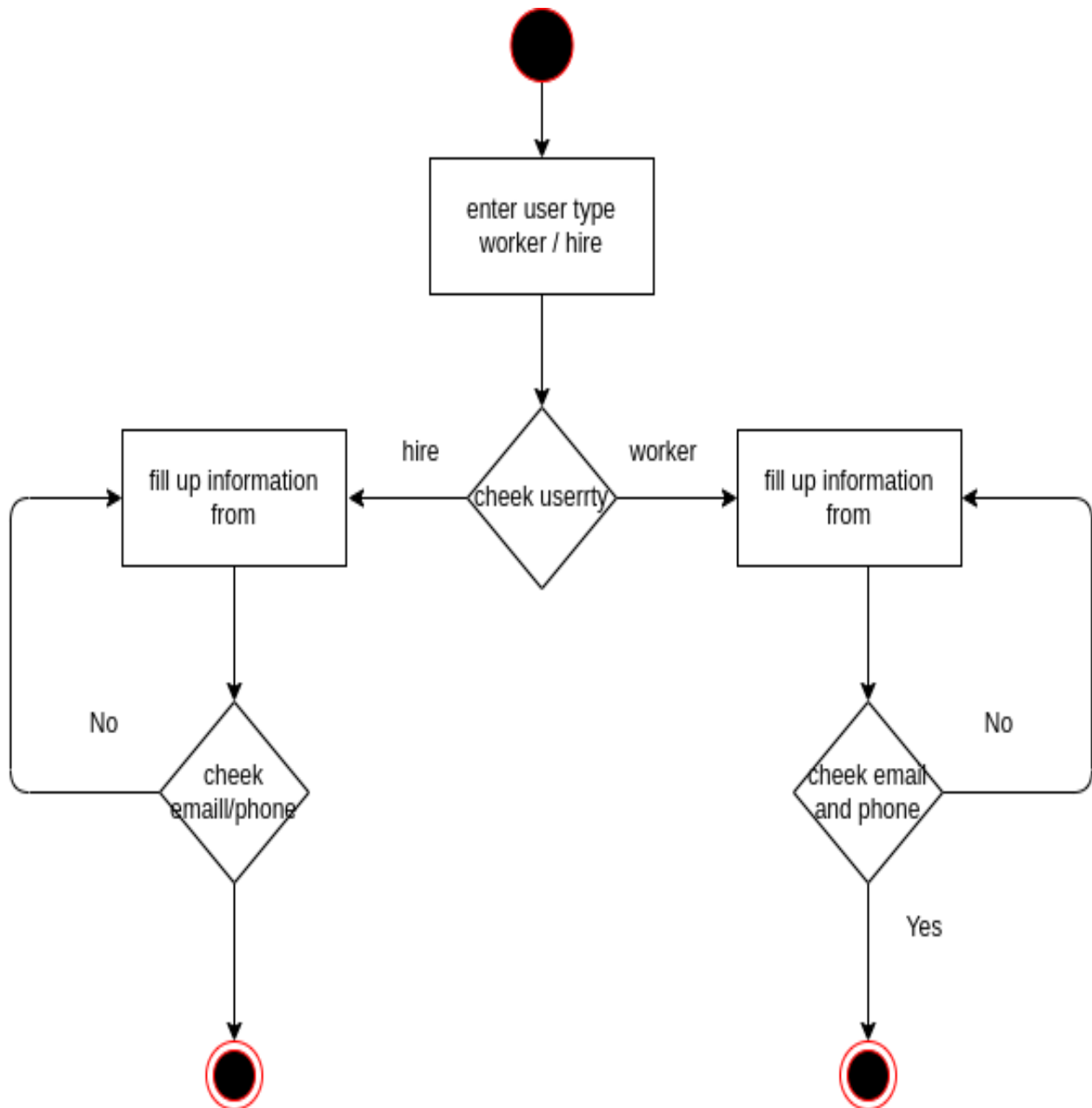
2.5.1 Use-case Diagram



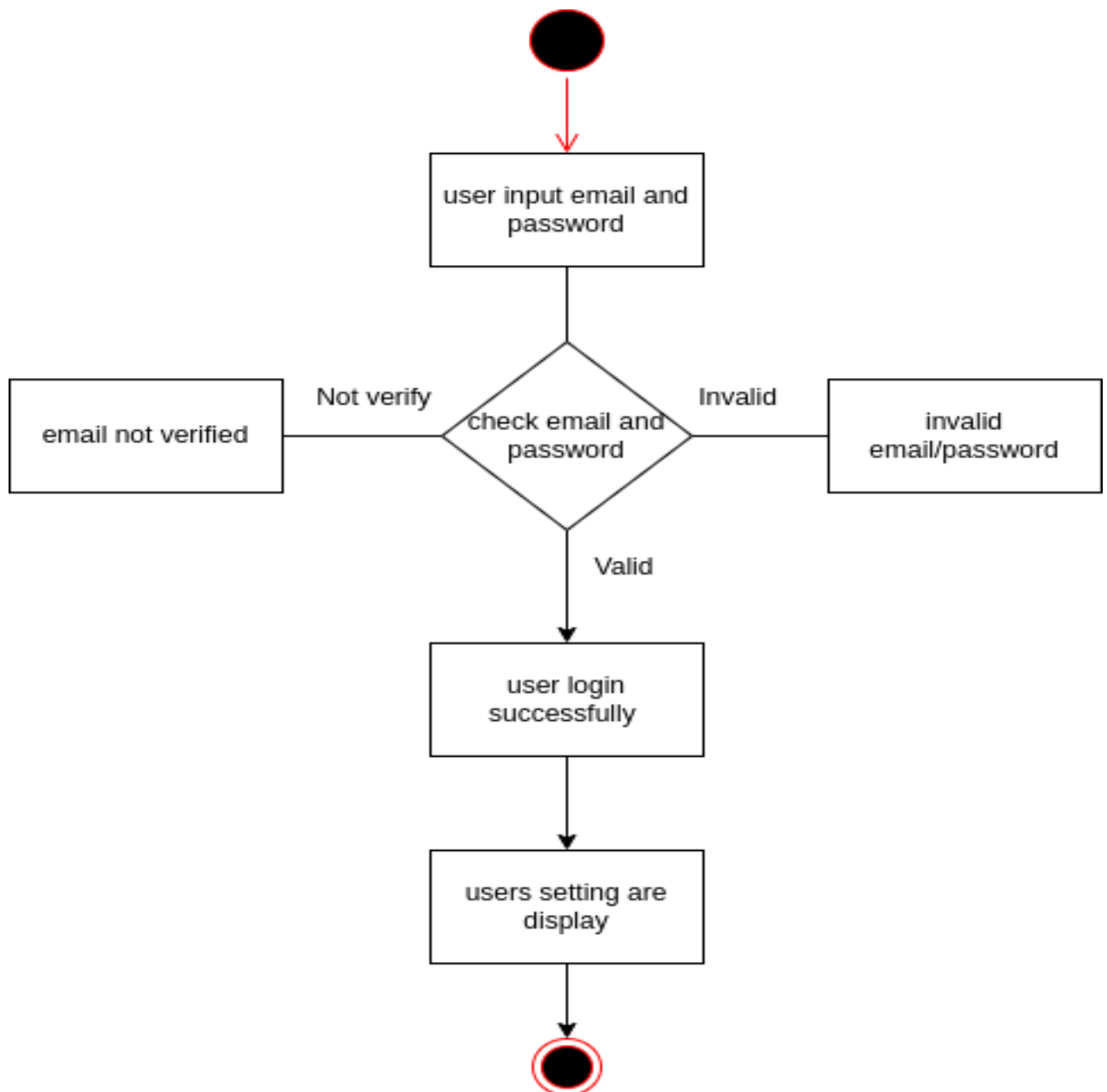
2.5.2 Use case table

3 System Design

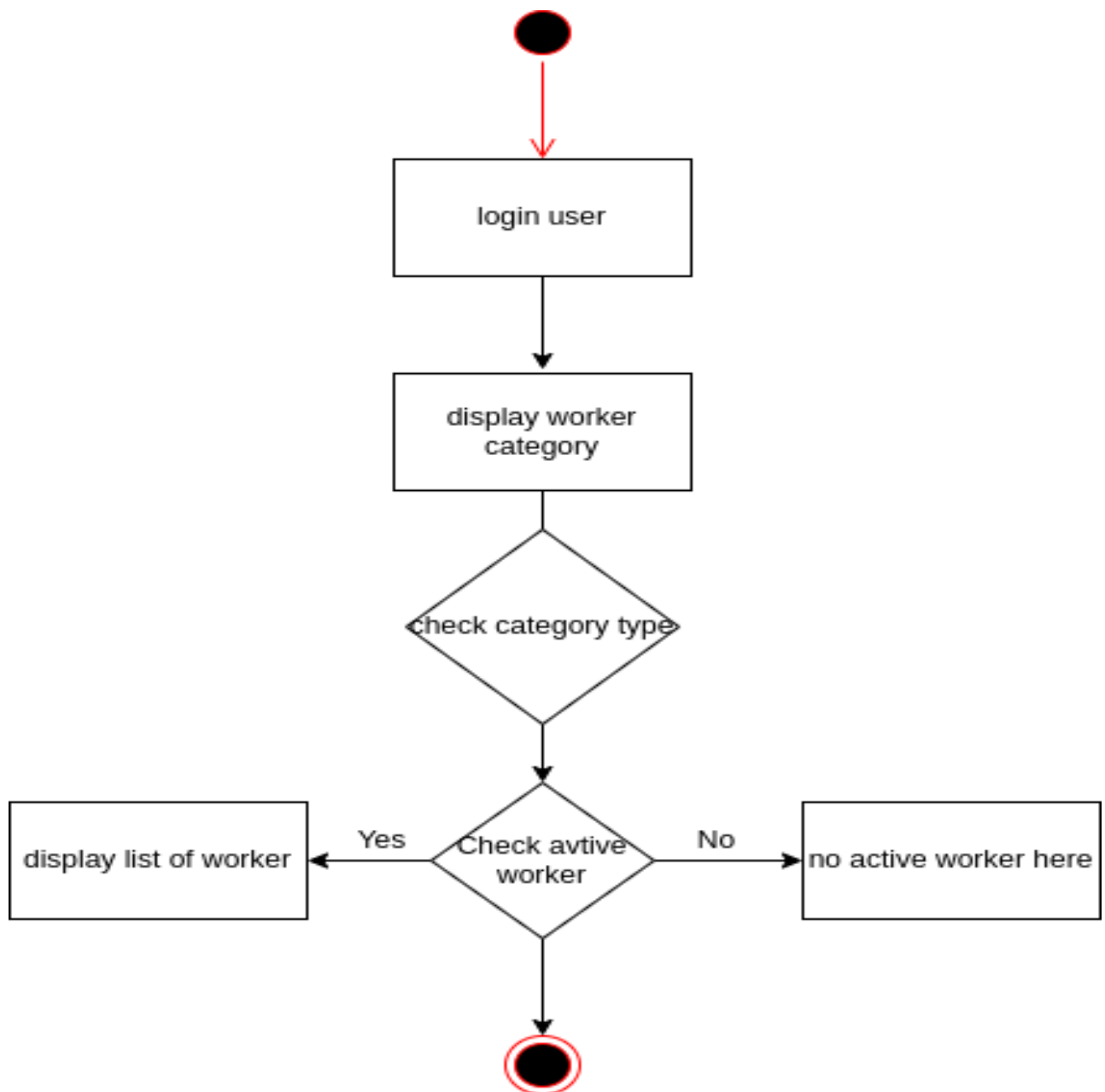
3.1 Activity Diagram(Create account)



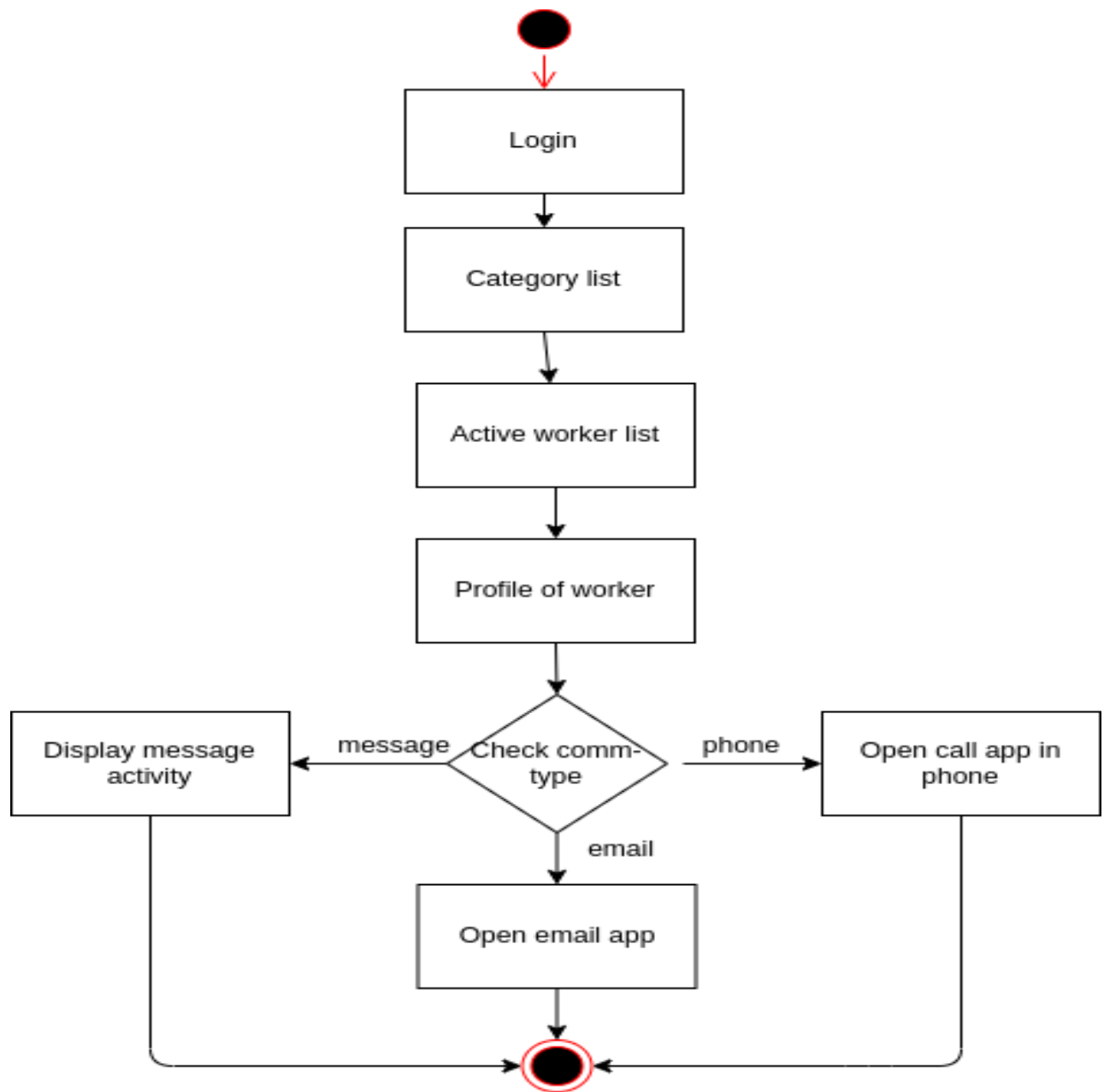
3.2 Activity Diagram(Login account)



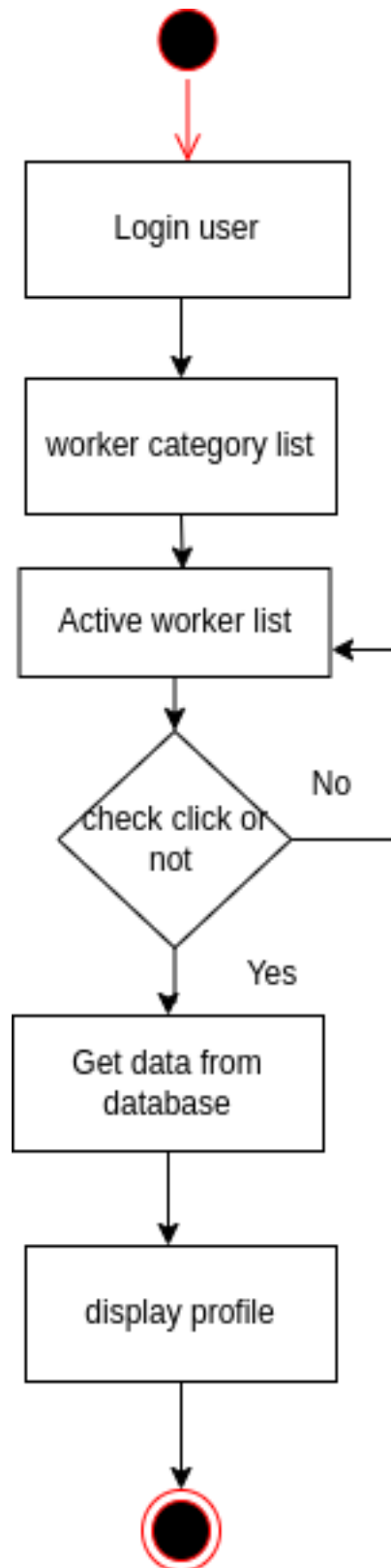
3.3 Activity Diagram(Active worker)



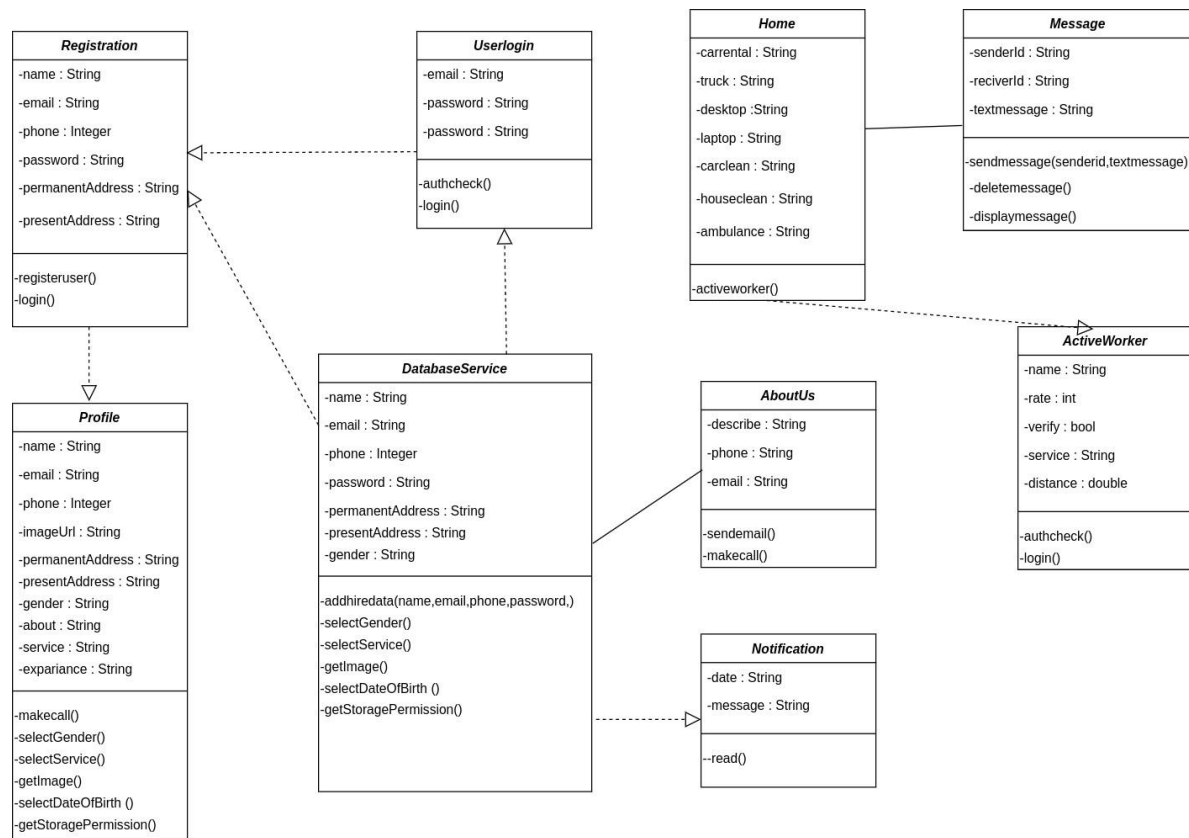
3.4 Activity Diagram(Communication)



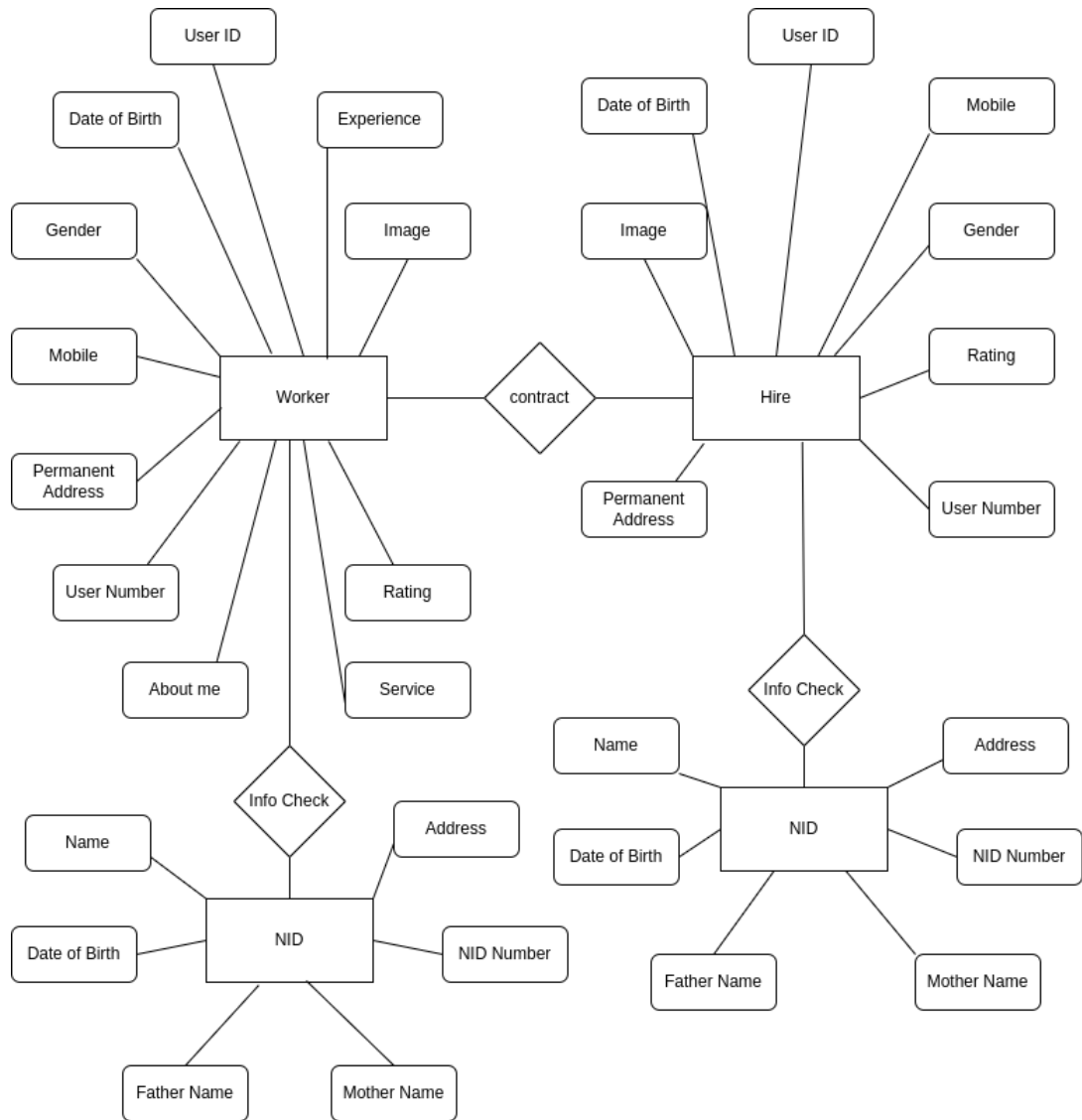
3.5 Activity Diagram(Worker profile)



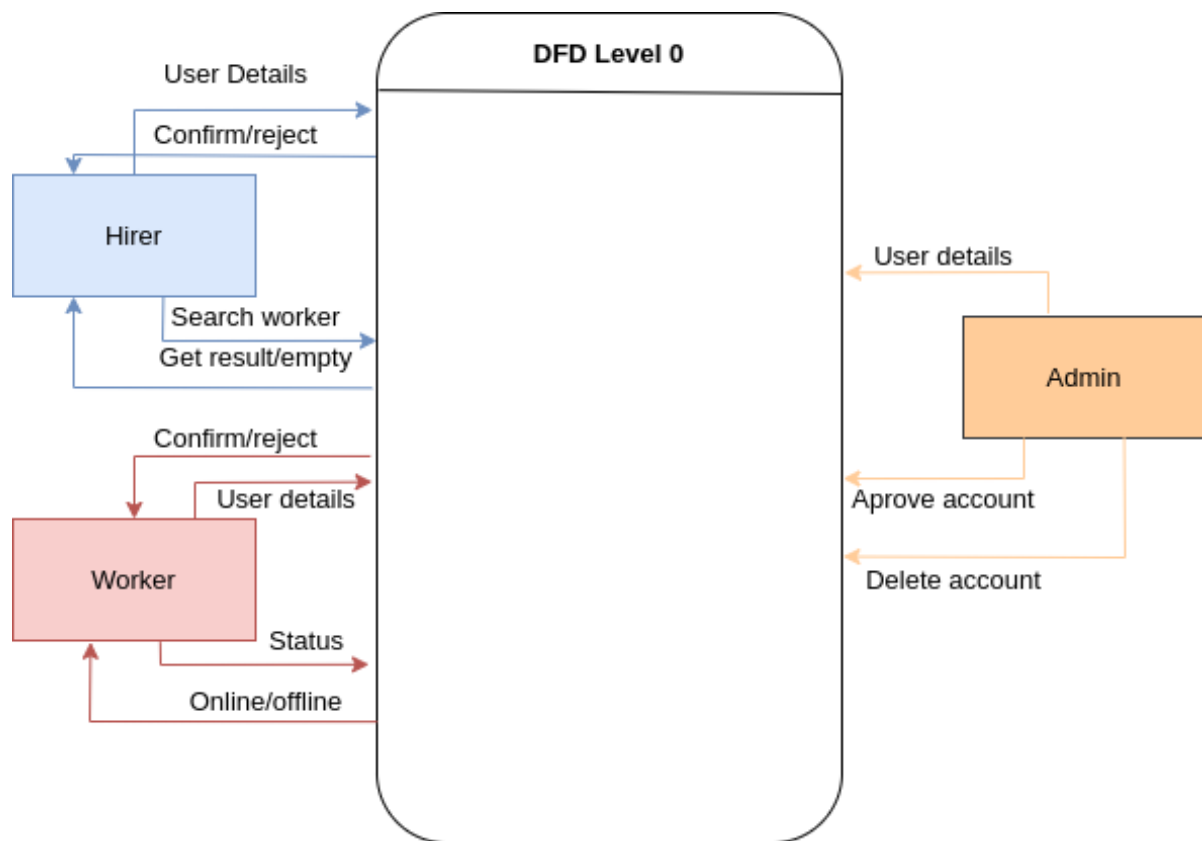
3.6 Class Diagram



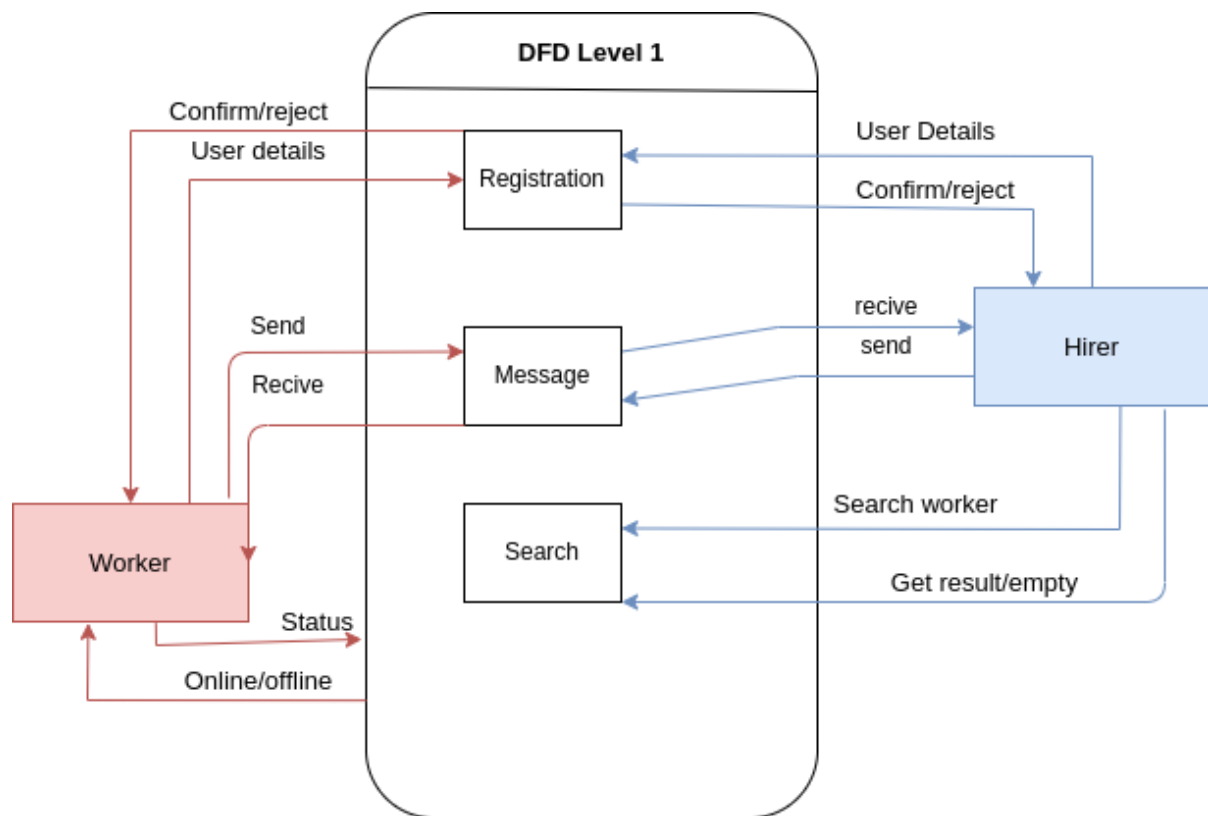
3.7 ER Diagram



3.8 Dataflow Diagram (Level-0)



3.9 Dataflow Diagram (Level-1)



3.10 Development Tools & Technology

This system is a mobile application. I used tools and technology for built this system given below.

- **Presentation layer** : Flutter Framework.
- **Application layer** : Dart programming language.
- **Data layer** : Firebase database.
- **Tools** : Android Studio.

3.10.1 Reason behind choosing

- **Flutter Framework** : Flutter is a cross platform framework that is the selected reason.
- **Dart** : It is a perfect combination for flutter framework.

Table 10: Features to be tested

Feature	Priority	Description
Login	2	User must be authenticated by login.
Logout	1	Session must be destroy after logout.
Registration	2	Before use service Registration first
Search worker	2	Search specific type of worker
View Worker information	1	Hirer can see worker information
Message	1	Message between hirer and worker

Here, 1 = Low Priority, 2 = Medium Priority, 3 = High Priority.

- **Firebase database:** Initially fire base give us some free storage and some exclusive data analyse tools and offline data read write permission.
- **Android Studio :** This tools gives some exclusive feature like,Live app perfor- mance test.

4 System Testing

4.1 Introduction

This mobile application services. There are several types of users and features. so i think this application requires a system.To ensure application quality, testing needs to be done. The user use will give some data so be careful about the data. have worked with that test they are given below.

Table 11: Test Case: Login

Test Case #1			Test Case Name: Log in		
System: Mobile Jobs			Subsystem: N/A		
Designed By: Tanvirul Islam			Designed Date: 12-12-2021		
Executed By: Tanvirul Islam			Executed Date: 12-12-2021		
Short Description: If the user data is correct, log in will be successful					
Preconditions:					
1. User must be registered					
2. Assume that username is tanvirul15-1664@diu.edu.bd and password is abcd					
Step	Email	Password	Executed Result	Pass/Fail	Comment
1	tanvirul15	abc	Wrong credentials	Pass	
2	tanvirul15@diu.edu.bd		Password Required	Pass	
3		abcd	Email Required	Pass	
4	tanvirul15@diu.edu.bd	abcd	Successfully login	Pass	
Post Conditions: After the login user can see the home page					

Table 12: Test Case: Logout

Test Case #2			Test Case Name: Logout		
System: Mobile Jobs			Subsystem: N/A		
Designed By: Tanvirul Islam			Designed Date: 12-12-2021		
Executed By: Tanvirul Islam			Executed Date: 12-12-2021		
Short Description: If the user want logout, then user will chose logout button and click the button.					
Preconditions:					
1. User must be login					
Step	Action	Response	Pass/Fail	Comment	
1	Click logout from drawer.	Successfully logout	Pass		
2	After logout button back to login page	Back to login activity	Pass		
Post Conditions: Session will be destroy					

Table 13: Test Case: Search Worker

Test Case #3		Test Case Name: Search worker		
System: Mobile Jobs		Subsystem: N/A		
Designed By: Tanvirul Islam		Designed Date: 12-12-2021		
Executed By: Tanvirul Islam		Executed Date: 12-12-2021		
Short Description: Click Create account bottom				
Preconditions: N/A				
Step	Action	Response	Pass/Fail	Comment
1	Click create account button.	Present registration form	Pass	
2	After registration	Go home page	Pass	
Post Conditions: Create session				

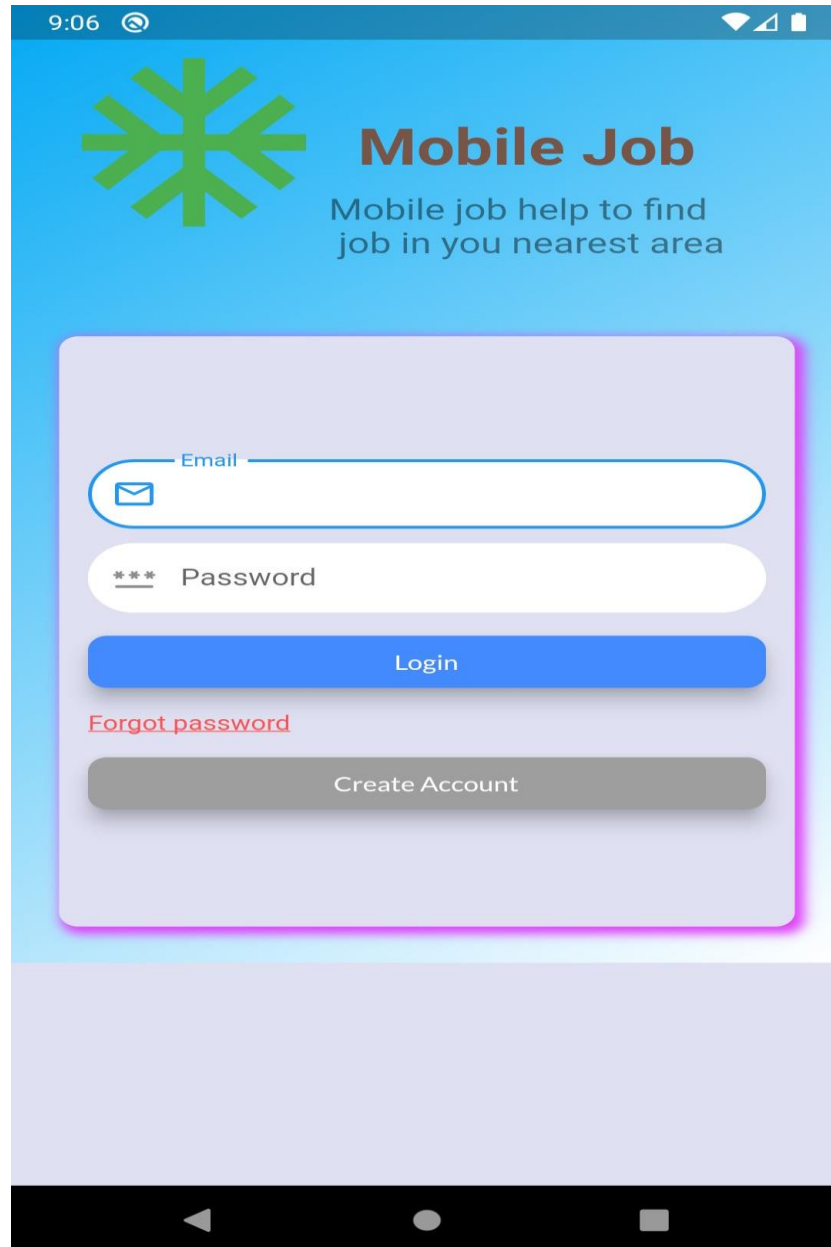
Table 14: Test Case: View worker information

Test Case #4			Test Case Name: View worker profile		
System: Mobile Jobs			Subsystem: N/A		
Designed By: Tanvirul Islam			Designed Date: 12-12-2021		
Executed By: Tanvirul Islam			Executed Date: 12-12-2021		
Short Description: Hirer can see worker information in profile					
Preconditions:					
1.Must be login user					
Step	Action	Response	Pass/Fail	Comment	
1	Show active worker list	List of worker	Pass		
2	Show profile	profile page	Pass		
Post Conditions: Category page					

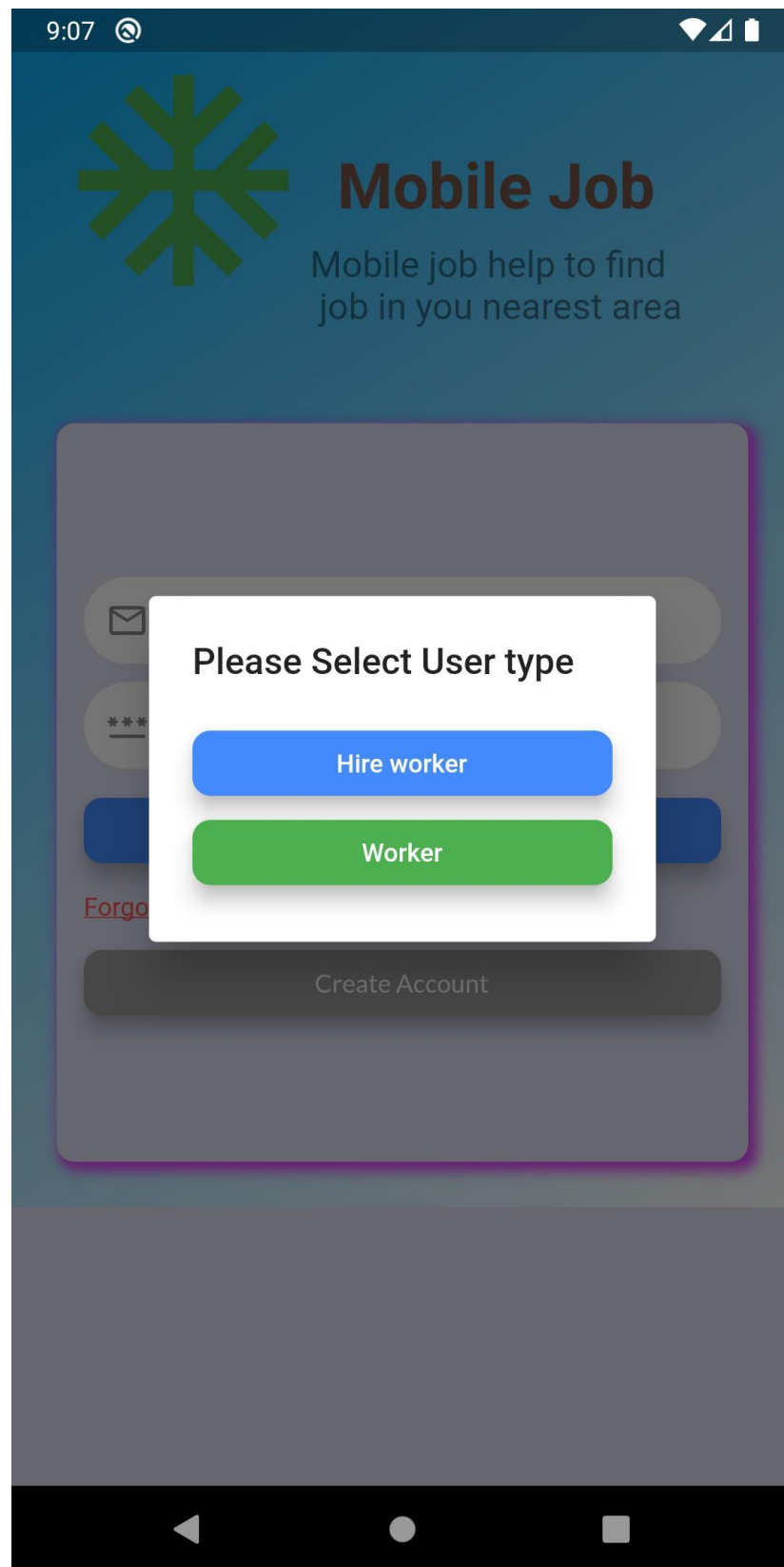
4.1.1 Features to be tested

5 User Manual

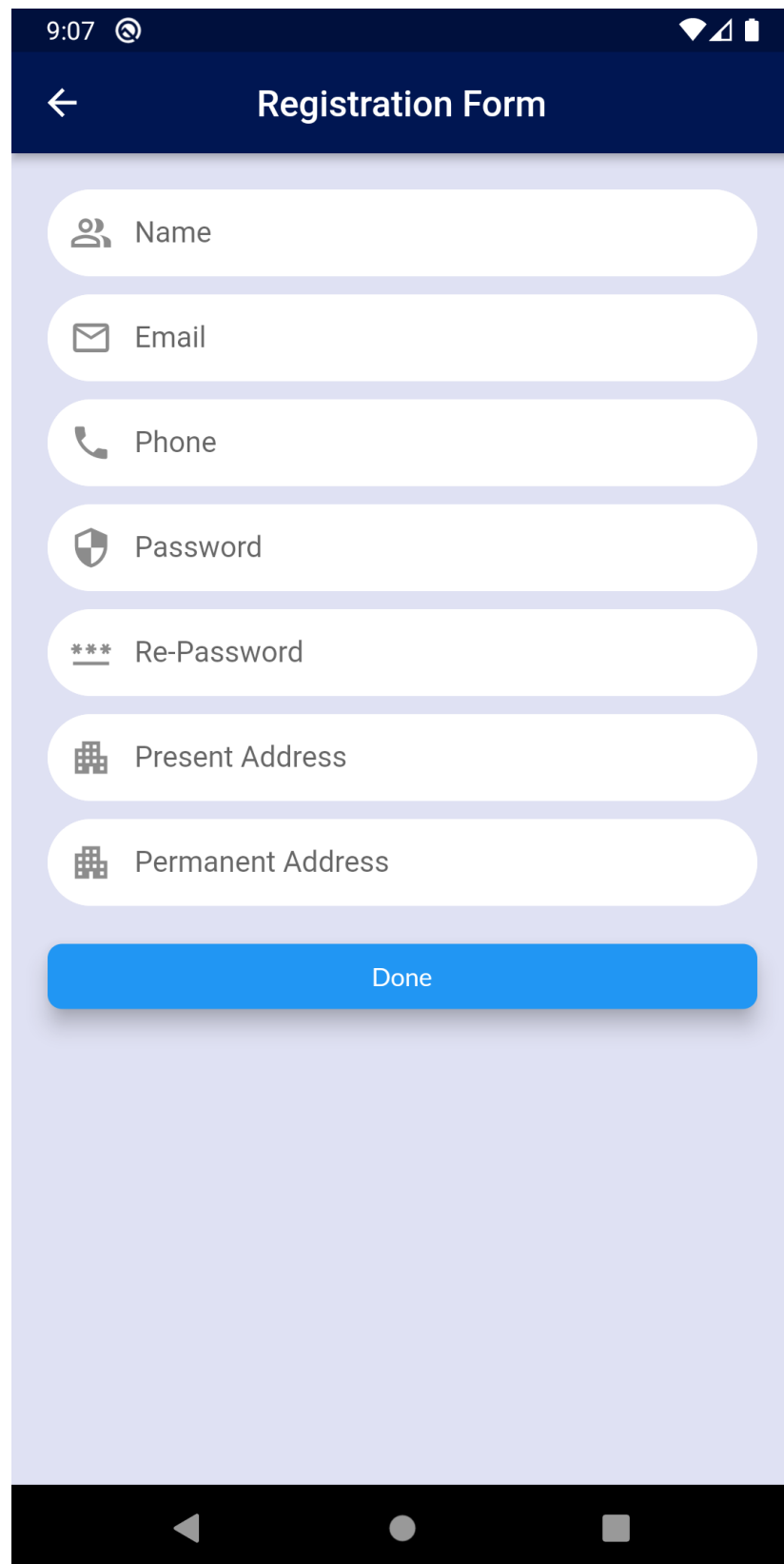
5.1 Login Screen



5.1.1 Select User type



5.1.2 Registration Screen



A mobile application registration screen titled "Registration Form". The screen features a dark blue header with a back arrow and the title. Below the header, there are seven white input fields with rounded corners, each containing an icon and a label: "Name" (person icon), "Email" (envelope icon), "Phone" (phone handset icon), "Password" (shield icon), "Re-Password" (three asterisks icon), "Present Address" (house icon), and "Permanent Address" (house icon). At the bottom of the form is a blue button labeled "Done". The screen is framed by a dark blue status bar at the top showing the time 9:07 and a black Android navigation bar at the bottom.

9:07

← Registration Form

Name

Email

Phone

Password

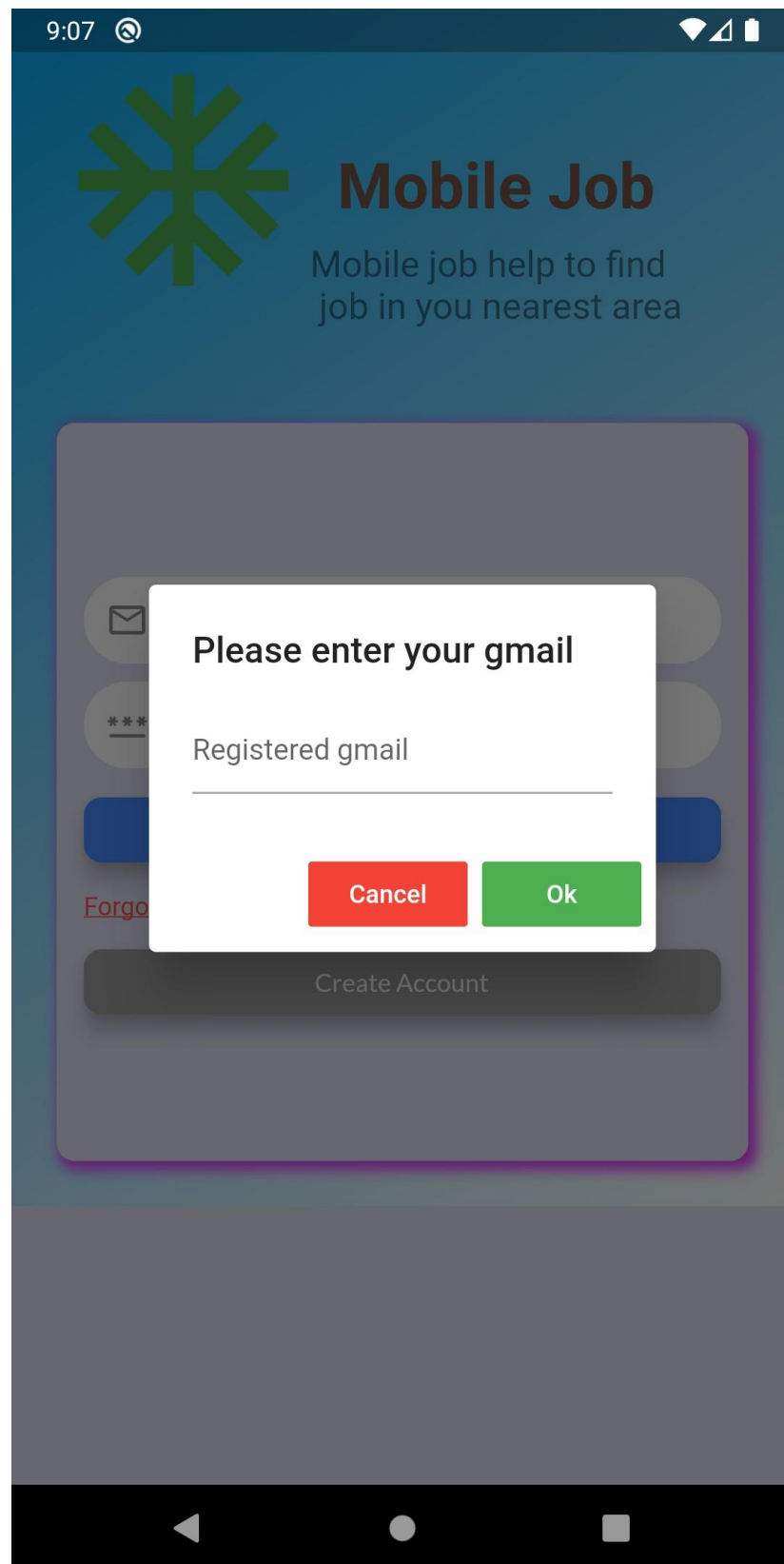
*** Re-Password

Present Address

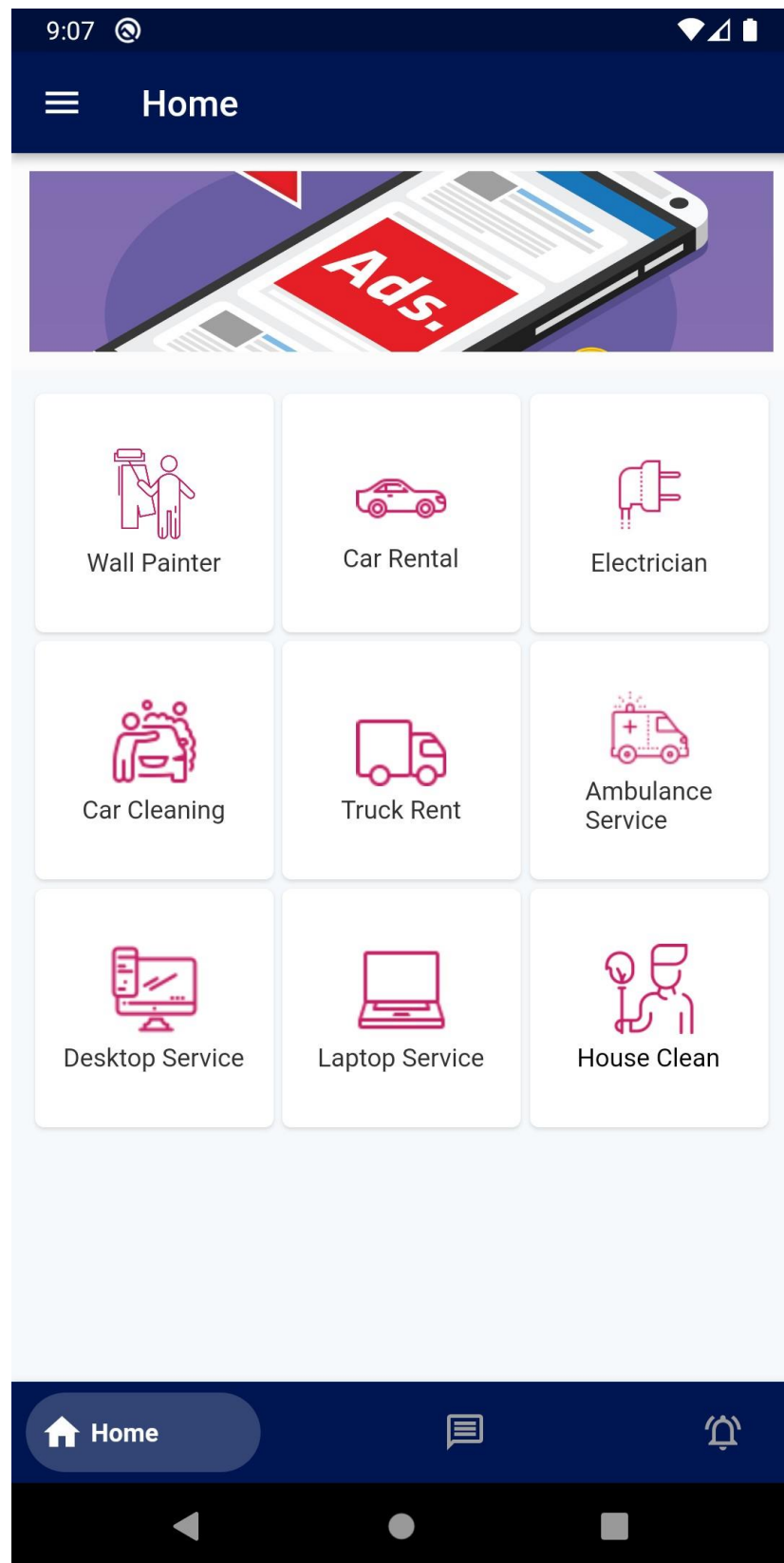
Permanent Address

Done

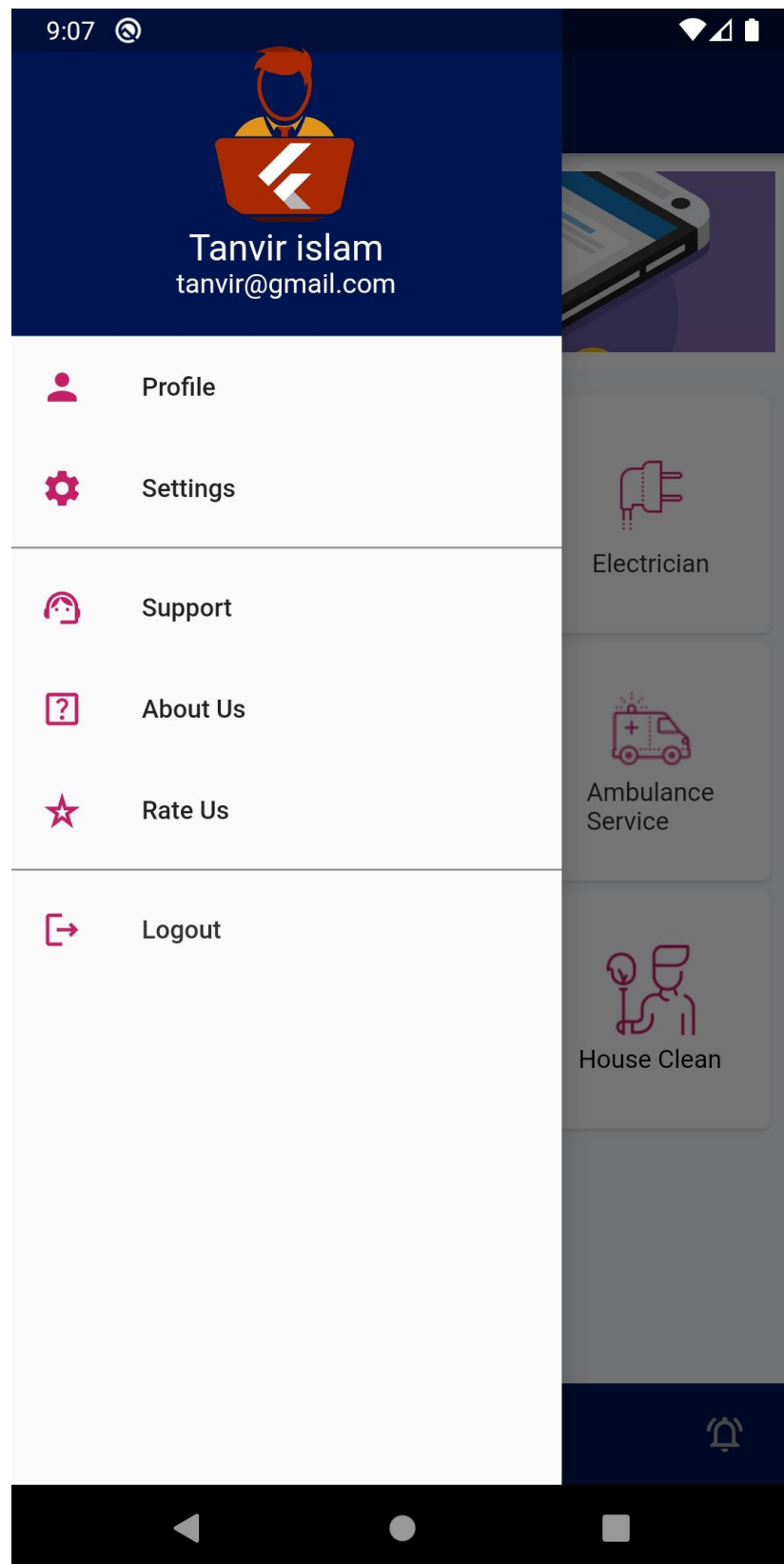
5.1.3 Reset password



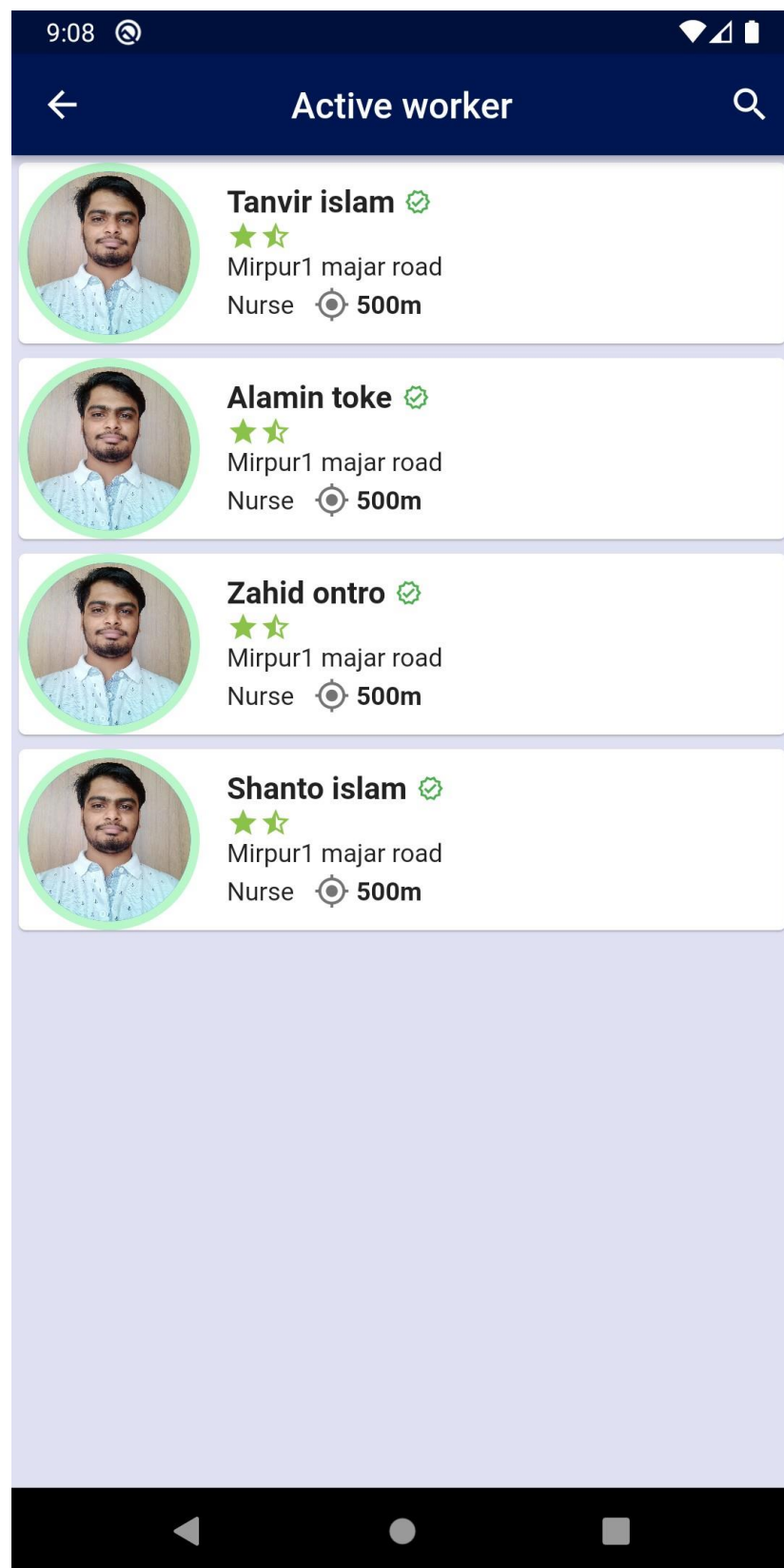
5.1.4 Home Screen



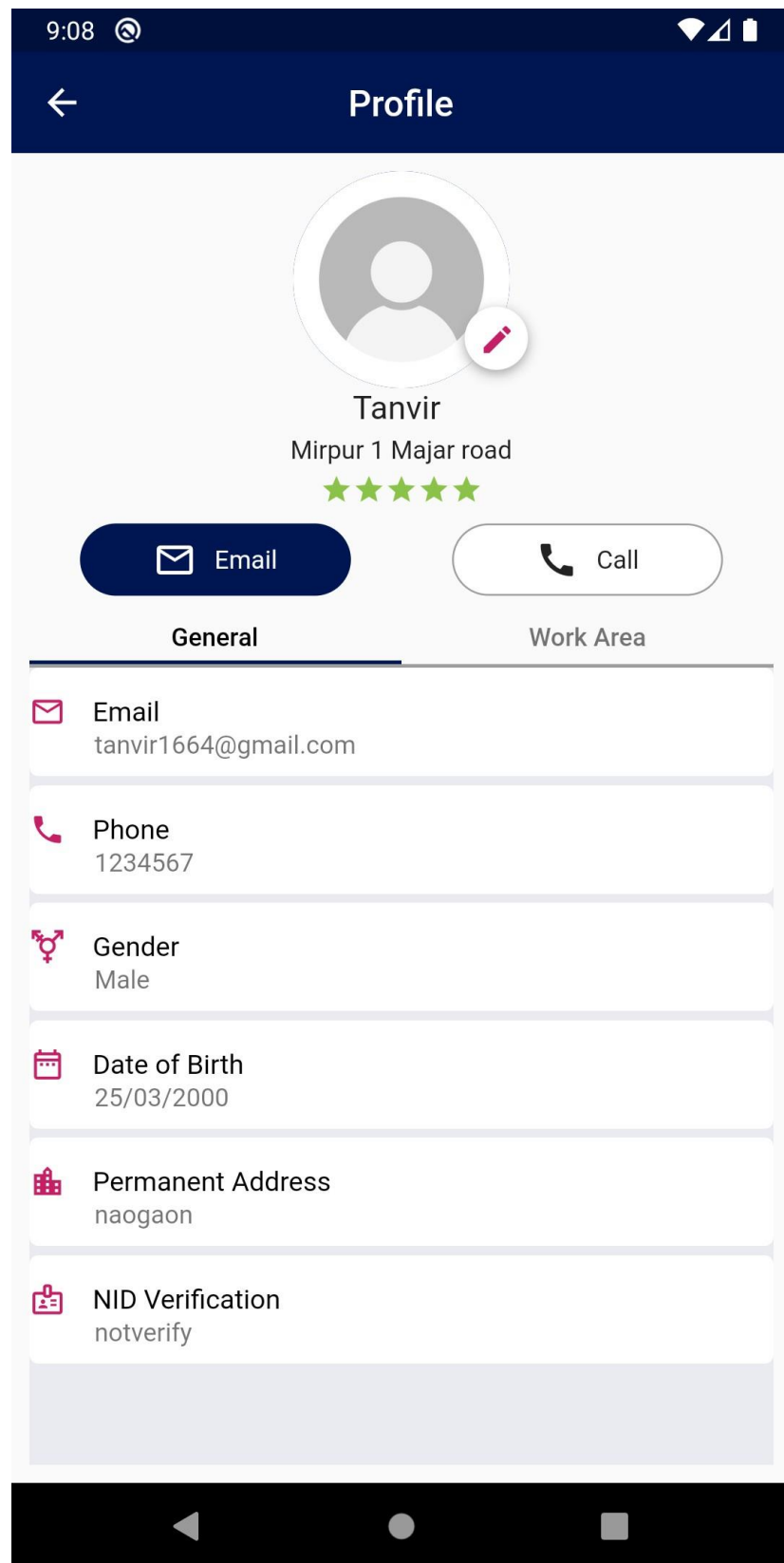
5.1.5 Drawer multiple settings

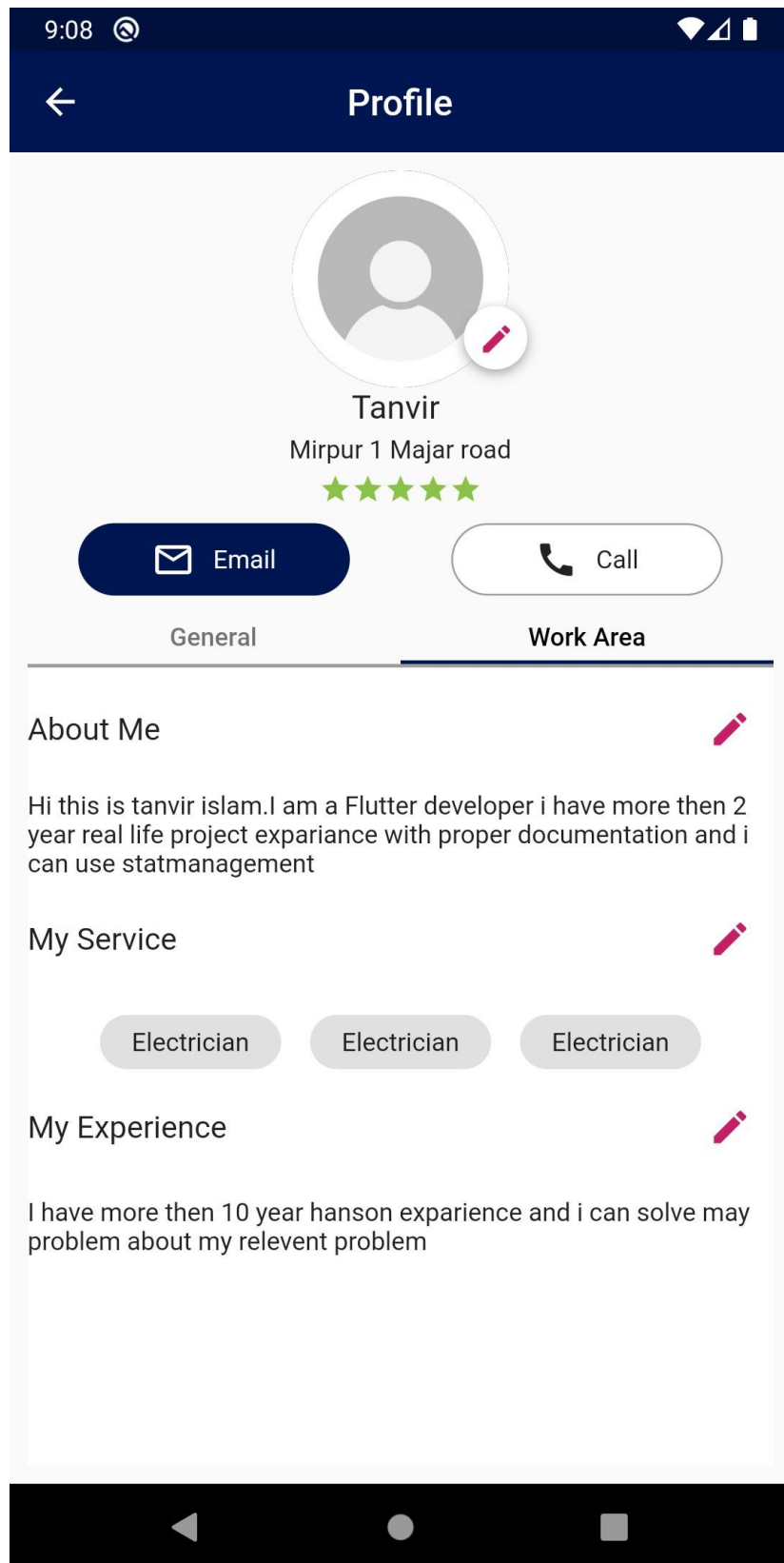


5.1.6 Active user list



5.1.7 Profile Screen





6 Project Summary

I have started the project work from January. I have first discuss to my supervisor then I will write down the features. After confirming the features then I started the system diagram and database design. After ensure the diagram the diagram and system design of my project then I started the coding part. After complete the coding part then I am started the testing part. To started testing work I have been taken some idea of testing and that's my supervisor helped me.

6.1 Limitations

I try my best to make a better application and full fill requirements. but somehow not possible to make for a short time.

6.2 Future Scopes

I think this project learned much thought. I will thank my all-lovest people for supporting me. I think this experience help me in the future also help to add new features.

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