Kingdom of Saudi Arabia
Ministry of Education
Majmaah University
College Of Science
Department of CSI

المملكة العربية السعودية
وزارة التعليم
جامعة المجمعة
كلية العلوم
قسم علوم الحاسب والمعلومات

Student Affairs System
For College of science Al Zulfi
Department of Computer Science and Information

‘Ask4Help’ Application

Submitted in partial fulfillment of the requirements for the award of
Bachelor degree of the Majmaah University
(Semester 2, 2019)

Submitted by:
Ayoub Saud Albader
351100537

Under the supervision of:
Dr. Fayez Alfayez

Table of Contents

List of Figures

1.0. Introduction

1.1. Purpose

The purpose of this document is to present a detailed description of the Ask4help program. It will explain the purpose and features of the system, the interfaces of the system, what the system will do, the constraints under which it must operate and how the system will react to external stimuli.

1.2. Project proposal

Technology is one of the most important sources used in the present time and can be utilized in all areas of life, in science, education, engineering, communication, entertainment, housing and many more,
Consequently, the idea was to create a service program to help people spend their needs free of charge.
(Ask4help)
This is the name of the program we would like to do
The program is based entirely on all users in general, as anyone who registers in the program can ask for help for anything they need, and can also volunteer to help others
For example: If you want to inquire about the method of registration in a website,
Or if I wanted to ask how to solve a mathematical issue,
Or if I encountered a mechanical problem in the car and wanted to know how to solve it,
So the person can inquire about all the problems facing him and benefit from the experience of others in ways to solve
* The person can also ask for help from people close to him, by sending a broadcast containing his location and the problem he faces
For example, if a person has a flat tire and needs to be repaired, he sends the broadcast to people close to him for help.

2.0. Overall Description

2.1 System Environment

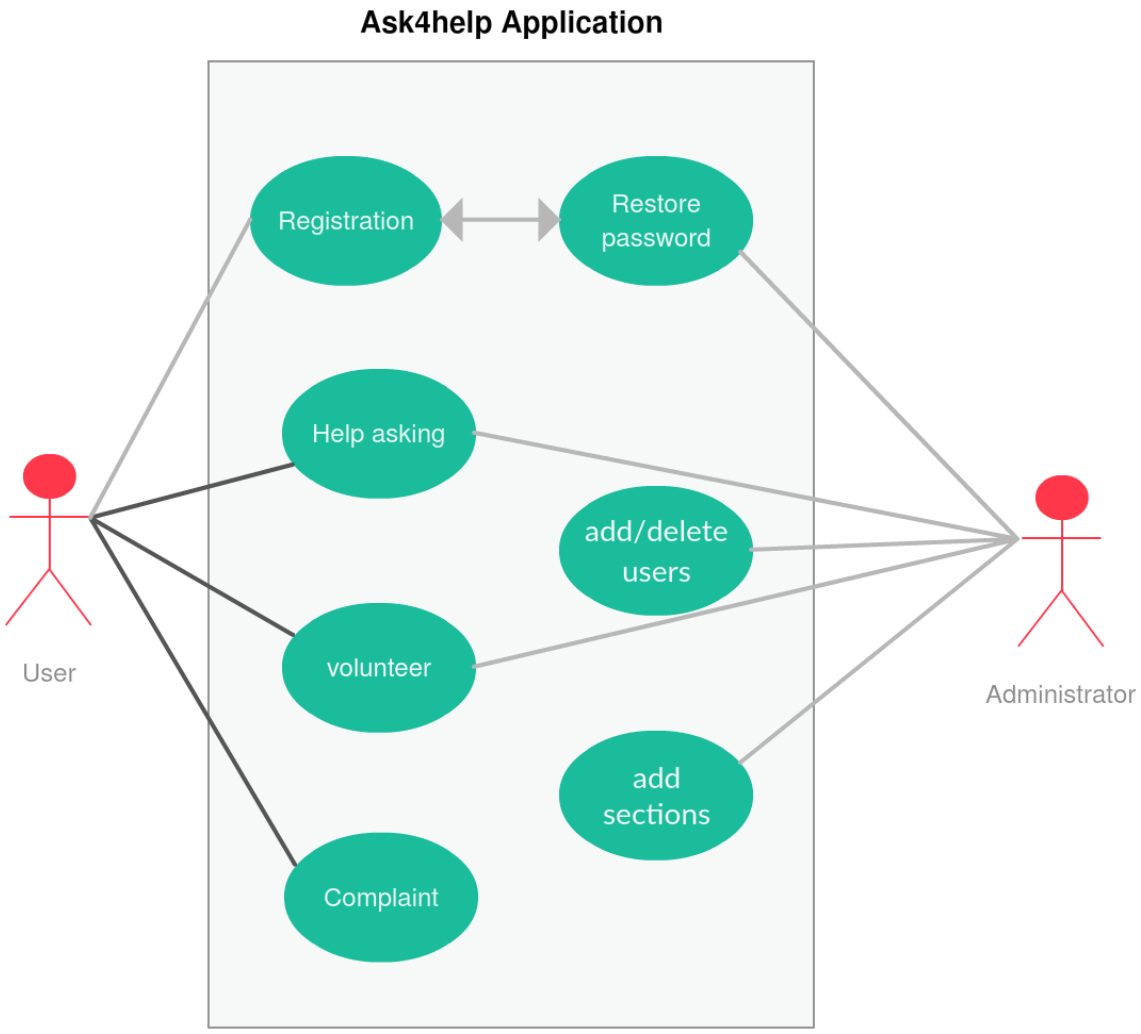


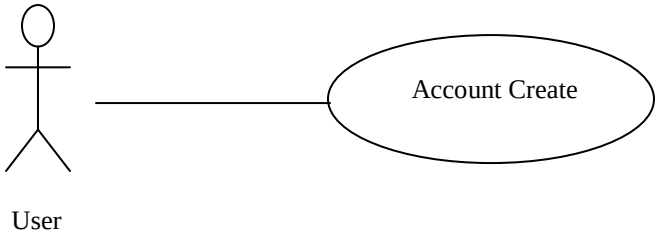
Figure 1 - System Environment

2.2 Functional Requirements Specification

This section outlines the use cases for each of the activities in the program.

2.2.1 Register users Use Case

Use case: Account Create



Brief Description
If the user wants to use the program, he must register within the program to be able to benefit from it.

Initial Step-By-Step Description
Before this use case can be initiated, the user has already the program.

1. The user will be creating an account.
2. The system requires to active the account.
3. The user can reset the password.
4. User access the system.

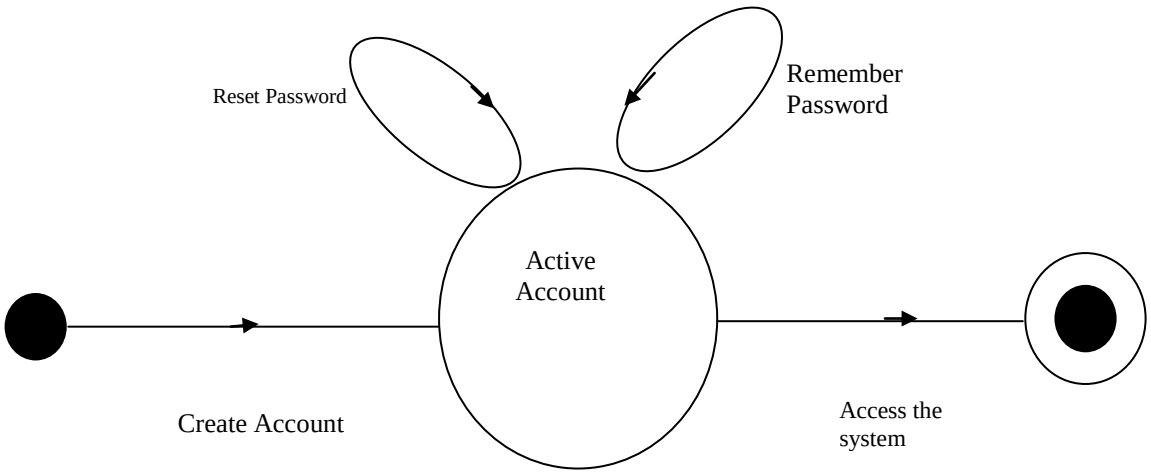


Figure 2 - Create account process

2.2.2 User Use Case

The User after register has the following:

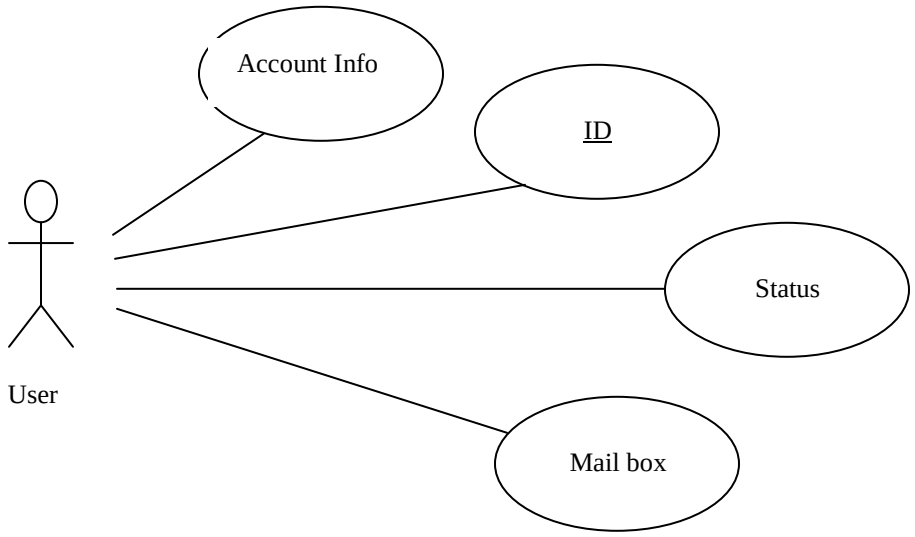


Figure 3 - User Use Cases

2.2.3 Use Case: User volunteer

Diagram:

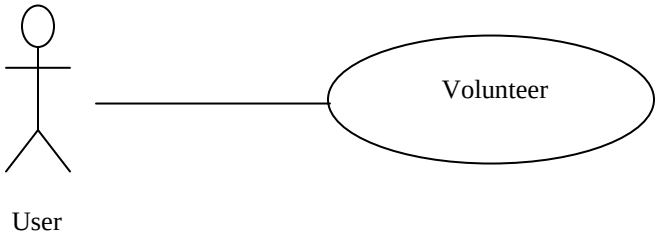


Figure 4 – User Volunteer

Description
Before this use case can be initiated, the user has accessed to the main page of the application.
The user can be volunteer to help other users.

2.2.4 Help ER Diagram

In case of helping ask, this term refers to the way for using the program.

Entity Relationship: Help asking Diagram:

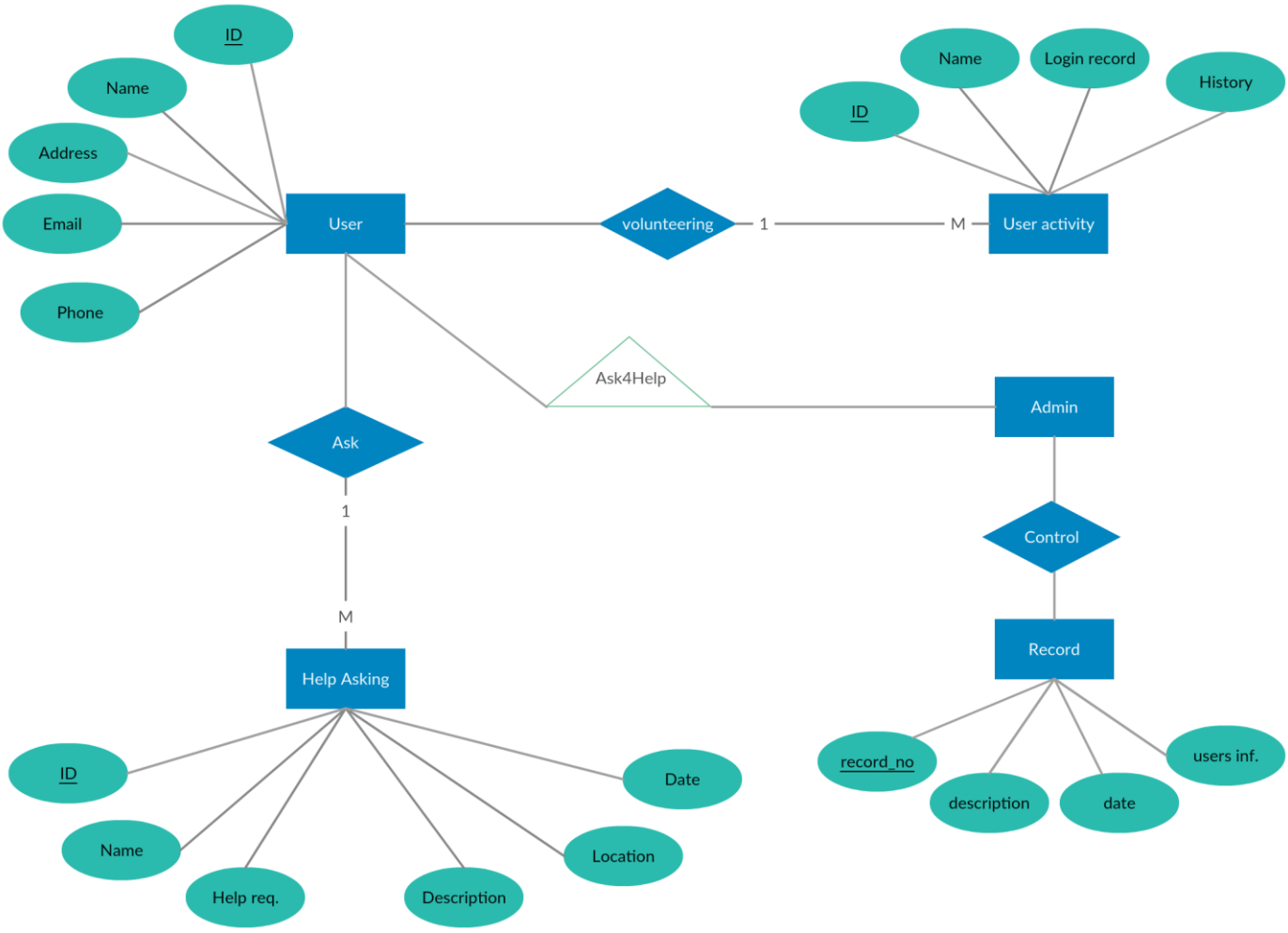


Figure 5 - Help asking Diagram

2.2.5 System Work Data Flow Diagram

DFD: System Details Diagram:

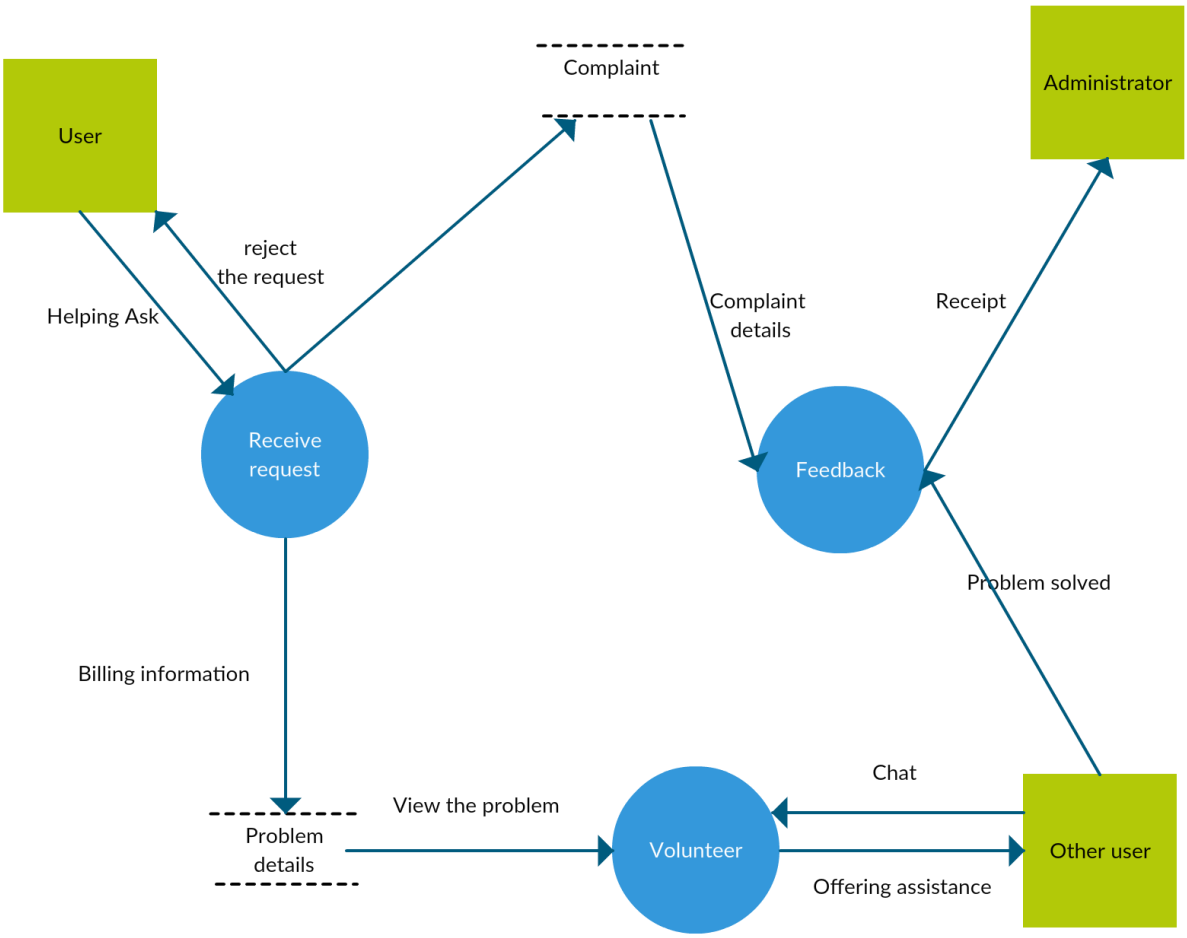


Figure 6 - System work data flow diagram

The User enters a new request for ask help with some information about the problem.

Initial Step-By-Step Description

Before this use case can be initiated, the User has already accessed the main page of the Program.

1. The System display to *Add new request or show the others problems*.
2. The user has a choice of request or show a problem.
3. The user chooses to add or to show.
4. If the user is adding a new request, the system presents a list of type of problems to choose from and presents a grid filling in with the information; else the system presents a blank grid.
5. The User fills in the problem information and submits the form.
6. The system shows the information to other users for get a help.

2.3 Non-Functional Requirements

- **Performance**

When sending a help request an alert will be sent to all registrants in the program.

- **Usability**

Ease of use and clarity of the program.

- **Locating help**

Send the user a location to access if needed.

- **Scalability**

The program is scalable and modifiable by the Administrator.

- **Interoperability**

The program is based on helping Users to each other.

- **Reliability**

The program is reliable during use and browsing inside.

- **Maintainability**

The program is maintenanceable when there is any problem.

- **Serviceability**

User can communicate with the administrator when there is any inquiry or suggestion.

- **Security**

The program is secured from hacking and viruses.

- **Regulatory**

Working within the program is regular and easy to use.

- **Manageability**

There is an administrator who manages and supervises the program.

3.0 System design

3.1 Description of procedures and function

- The application was implemented in Java Langauge.
- Now works on Android devices.
- The application is required to have android system version by 4.0 or above.

4.0 Implementation and Testing

4.1 Introduction

The application was implemented in Android Studio.

The databases were created at Google's Firebase website.

Contains three basic interfaces:

1. Register a new account
2. Log in
3. The main page

Three dialog boxes:

1. Splash Screen
2. Add a new topic
3. Add a comment

And three databases:

1. Users database
2. Subjects database
3. Comments database

4.2 Layouts

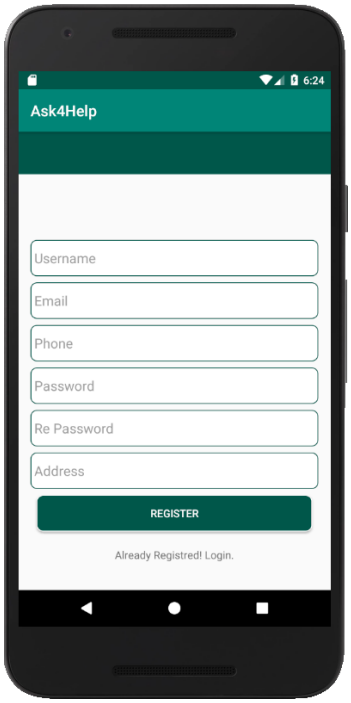


Figure 7 - Register a new account

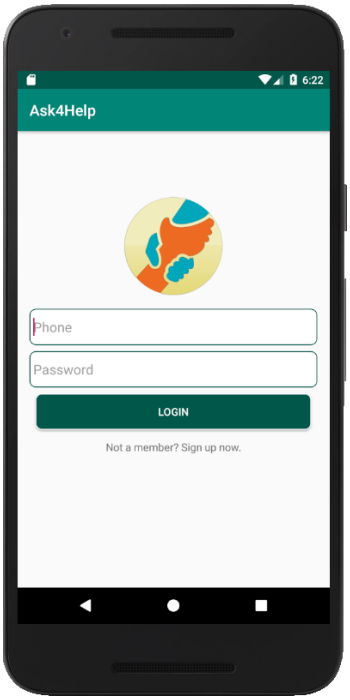


Figure 8 - Log in

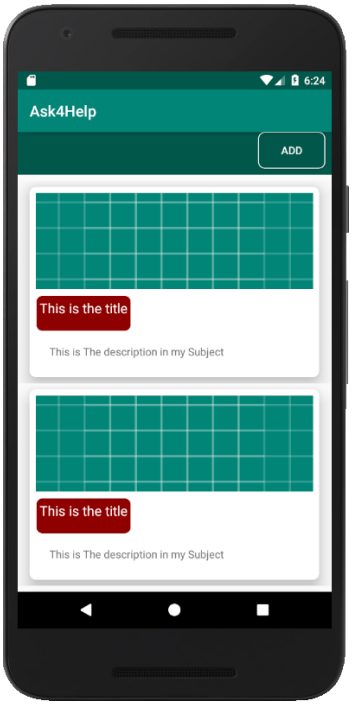
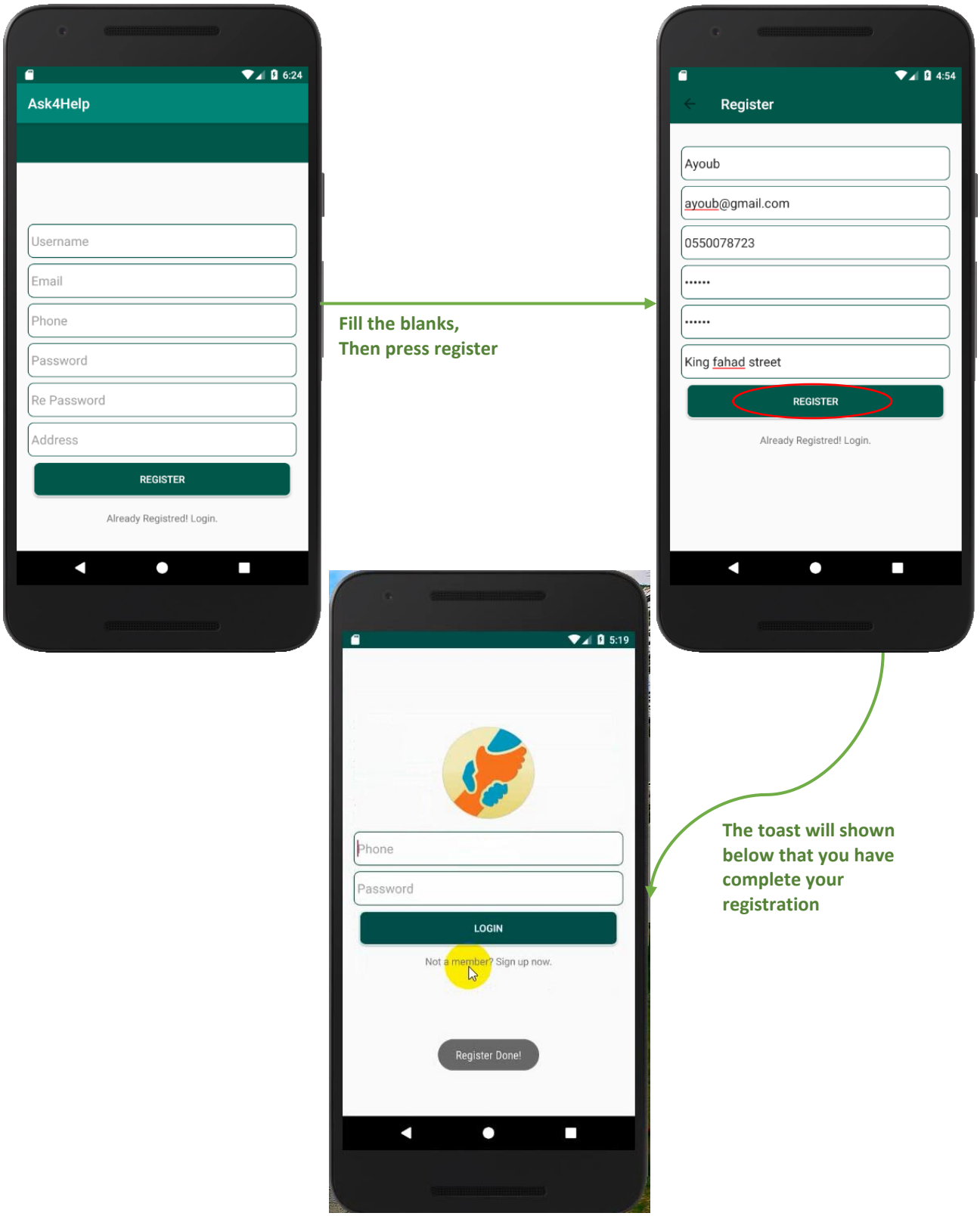


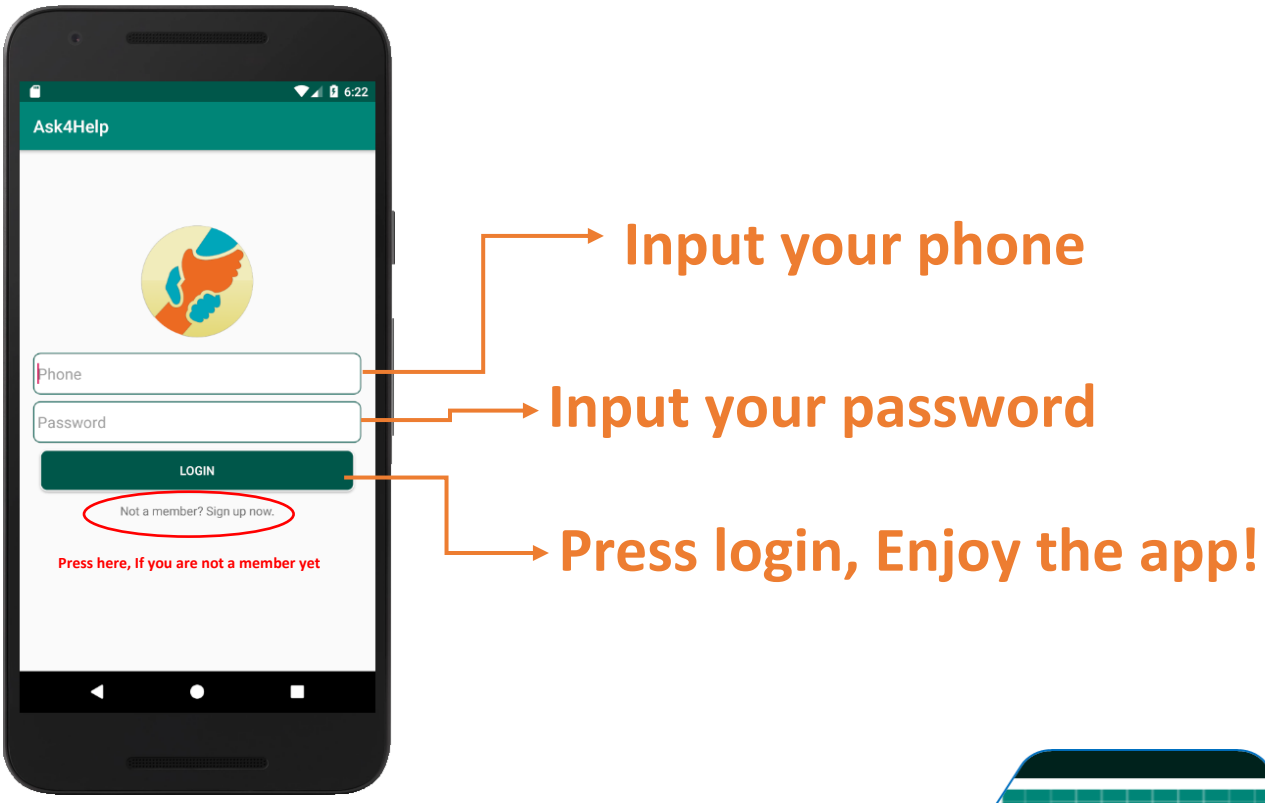
Figure 9 - Subjects list

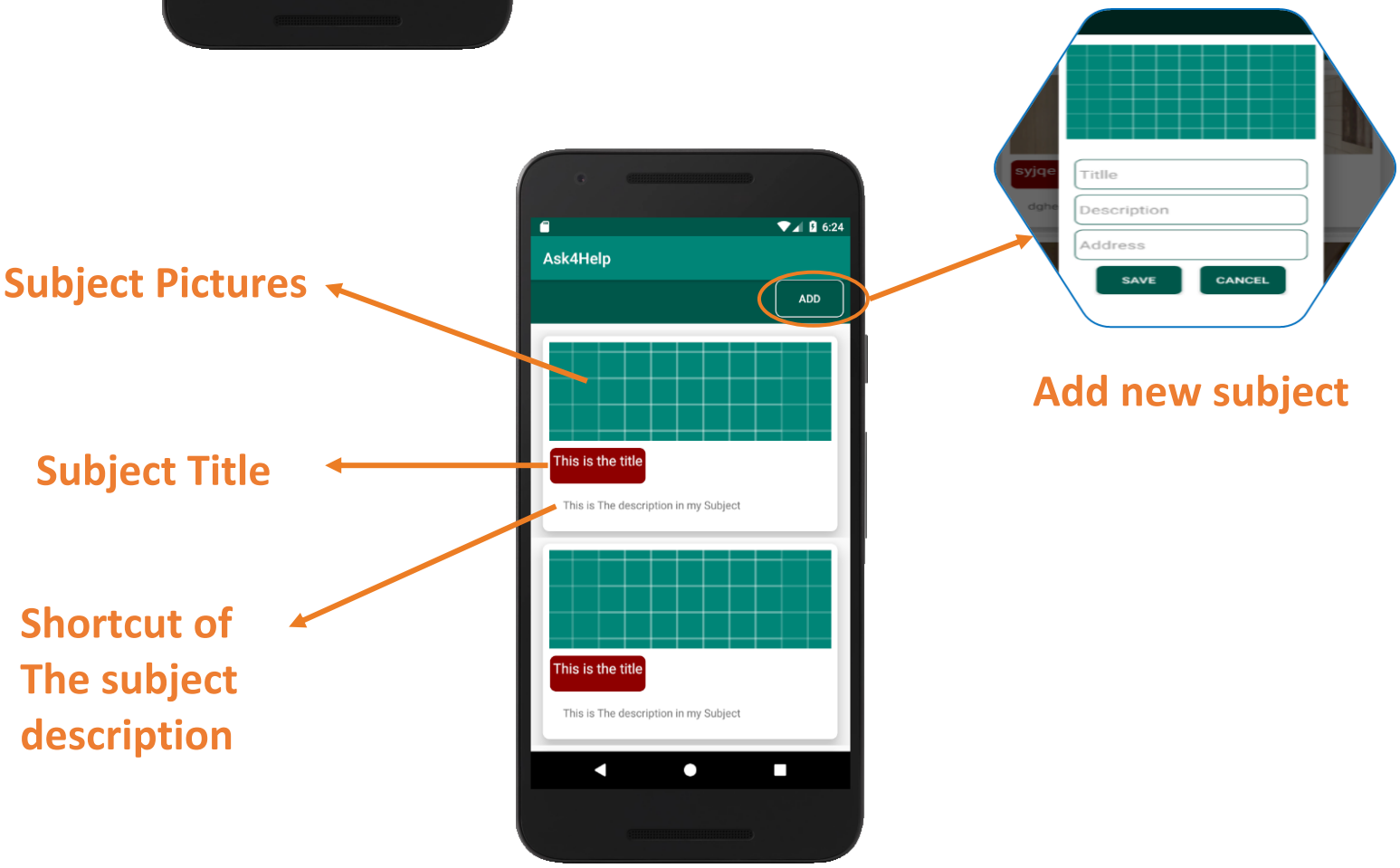
4.2.1 Layouts report

1. Register layout



2. Login layout





References

1. https://en.wikipedia.org/wiki/Software_requirements_specification
2. https://reqtest.com/requirements-blog/functional-vs-non-functional-requirements/
3. https://creately.com/app/#
4. https://www.edsd.com/portfolio/mobile-applications
5. https://stackoverflow.com/tags
6. https://github.com/topics