A Web Based Solution System For The Indian Farmers "Agro@ssisT"

A THESIS

Submitted by

SIKANDAR YADAV
(REG. No. 14MCA0153)

In partial fulfillment for the award of the degree of

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DECLARATION

I hereby declare that the thesis entitled "**A WEB BASED SOLUTION SYSTEM FOR INDIAN FAREMERS 'AGRO@SSIST' SUBMITTED TO VIT**" submitted by me, for the award of the degree of *Master of Computer application* to VIT University is a record of bonafide work carried out by me under the supervision of Prof. **Anitha A,** Assistant professor SITE **(**senior**).**

I further declare that the work reported in this thesis has not been submitted and will not be submitted, either in part or in full, for the award of any other degree or diploma in this institute or any other institute or university.

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Internal Guide ***Head of Department***

Internal Examiner ***External Examiner***

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SIKANDAR YADAV

Abstract

Agriculture plays a vital role in the Indian economy. And most of the people belongings to the rural area is dependent on the agriculture, according to the Google 70 % of our rural household are dependent on agriculture, fisheries and forestry. And they are also providing the much contribution in Indian GDP and is its single largest contributor. And now a days people don't wants to go for the agriculture because of the less income and increasing rate of inflation. The main reason behind this is less educated people and lack of related information required for the farming.

So, that I have proposed a system that will connect the Indian farmers with the technology and it provide a platform to the formers to ask the question that they are facing in the cultivation. And they will be given audios and videos by which they can easily understand the way how to solve or achieve the advantages of the technologies in their work.

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LIST OF ABBREVIATIONS

SDK	Software Development Kit
GUI	Graphical Users Interface
GPS	Global Positioning System
GDP	Gross Domestic Product
SDLC	Software Development Lifecycle
APK	Android Application Package
NAEP	National Agricultural Education Project

CHAPTER 1

INTRODUCTION

This system is designed to overcome the drawback of the existing system which are is in used but it's not giving better impact to the users, so that I have selected this idea if for my final project that will provide the good impact on the users as well as for me in learning the technology that I'm going to use in this system.

With this proposed system I have been providing the facilities to connect the agro experts people with the formers , agro experts people will be authorized by administrator of this system and anyone can ask question from them directly whatever problems they are facing. Expert will give the advice to the farmers to do the farming in scientific manner. And they will provide all the alternative that the formers can select any one of them to proceed with easily.

I would like to draw your attention on the following results that will express the need of this system- how the number of cultivators are decreasing in day to day life-

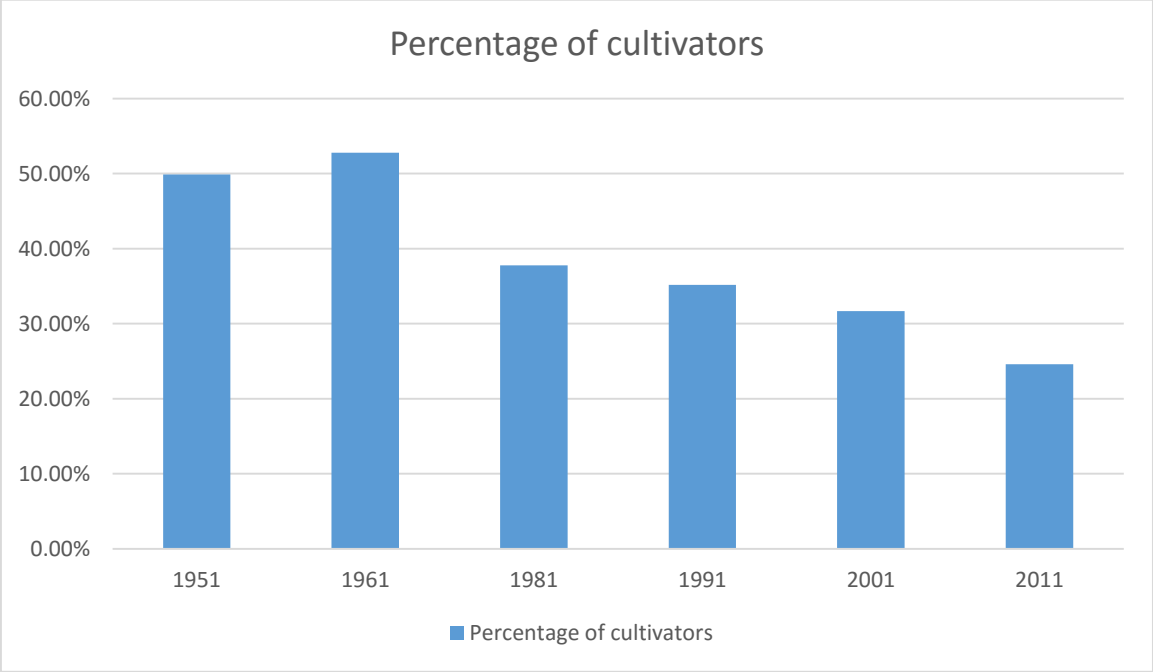


Figure 1 (Cultivator's decreasing ratio)

This chart shows the rate of decrement in cultivators that is very dangerous for the future. So by taking this into the consideration I have decided to do my project on the “Web based solution for the Indian farmers” is known as Agro@ssisT.

Agro@ssisT will provide the following solution to the formers-

- Upcoming Weather condition.
- Crops description suitable for particular season.
- Solution for the Diseases that are harming to the crop.
- Market price of the product that they wants to purchase or sell.
- Market location to purchase or sell the product at best price.
- Planes that are provided by the Indian government (description)

The main thing is to provide them a platform where they can freely ask problem with the experts.

CHAPTER 2

LITERATURE REVIEW

FUTUREFARM-Integration of Farm Management Information Systems to support real-time management decisions and compliance of standards

Although a great many people can see the advantages of utilizing a more exact way to deal with oversee crops with extra data, the instruments gave by exactness cultivating and other data advances have not yet moved into standard rural administration. The expanded unpredictability of the frameworks restrains simple appropriation and makes computations with regards to the monetary regale indeterminate. These issues can be determined by enhancing the basic leadership prepare however better Management Information Systems, enhanced information exchange principles and clear administration strategies. This paper gave a thought which gives the worldwide business sector data to the farmers where the can offer and buy his/her item. Also, they can associate with the innovation too for better accomplishment.

National Agricultural Education Project (NAEP)

The ICAR gives backing to arrangement, quality affirmation through accreditation, regular scholastic regulations, upgraded and contemporary course educational program and conveyance frameworks, change of personnel capability, advancing greatness through grants/partnerships, Niche regions of perfection, experiential learning, National Professors, National Fellows, Emeritus Scientists, confirmations of understudies through All India rivalries, modernization of homesteads, IT bolster and up-degree of foundation and offices including libraries. It is be that as it may, perceived that the real bolster originates from the particular state governments. By concentrating on this paper I attempt to fill the crevice between government approaches data and the agriculturists. Since the vast majority of the ranchers are not knowledgeable so tries to give all the data specifically to them.

A Cloud-Based Framework for Agriculturists on Mobile Platform

IT has to plays an important role in Indian farming to facilitate farmers in improving the productivity allover

Technology can be used in two ways:

- As a direct tool in agriculture production, such as satellite technologies, geographical information systems, agronomy and soil sciences, and
- As an indirect tool for empowering farmers to take information and have discussions which positively improves the agricultural activities that were traditionally conducted.

E-Agro Android Application (Integrated Farming Management Systems for sustainable development of farmers)

This product application is fundamentally for feasible improvement of agriculturists. Commonly agriculturist is befuddled to take choice with respect to determination of manure, pesticide and time to do specific cultivating activities. So to stay away from this issue this application is exceptionally helpful. Compost timetable of every sort of product will get enlisted. Taking into account sowing date of product, agriculturist will get updates about utilization of compost according to plan. Extra guidance will be given in light of Soil sort, climatic condition and so forth. This framework consolidates current Internet and portable correspondence frameworks with GPS for productive and smooth cultivating. This audit paper exhibits the presentation, hypotheses and investigation of DBMS in agribusiness. This paper is created on brief investigation of some basic issues confronted by the ranchers the country over. This anticipate goes for conveying the flash of 21st century to that 70% populace who are area admirers.

By studying these paper I found that there are several technology are there but the lack of information is the very big problem, so that I will fix this problem in my system by providing all the necessary information to the users.

CHAPTER 3

SCOPE AND OBJECTIVE

Objectives

The proposed system objective is to connect the Indian farmers with the technology by which they can get all type of solution/information that is required for the successful farming. And provide them a better platform where they can trust and feel free to interact with this system.

Motivation

- This proposed idea will help the farmers to get information regarding farming in very simple and interactive way.

It will encourage the farmer and it'll provide platform by which they can solve many farming problem like cultivation, upcoming weather condition, diseases that are harming the corps by himself with the use of this system.

CHAPTER -4

Modules and its Descriptions

General:

This Proposed system has several modules that have its own functionality. Each and every module of this system is designed for taking the agro problems into the consideration. Modules descriptions are given in the following.

This proposed project have consist of the following layout that will exactly shows the module description, and it will provide the hyperlink to move from one activity to another activity.

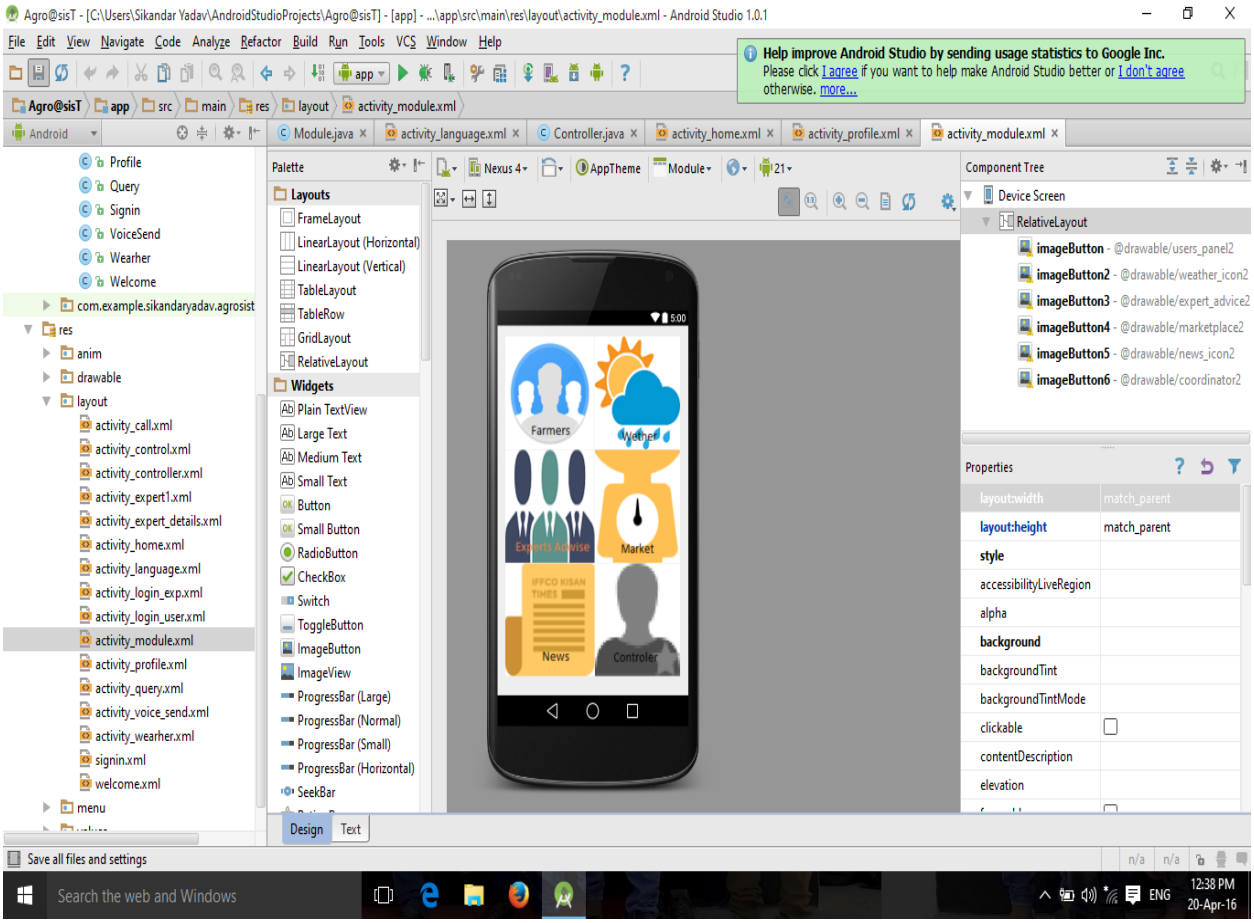


Figure 2 (Modules Description)

Module 1- User (Farmers):

This user module, the one is going to direct benefitted by this system. They can obtain information from this system. Farmers will be able to query with the system and they will get response soon. Experts will serve the users as they needed. The user module will get many facility from this system that are.

- Farming related problem's solution.
- Direct Interaction with the expert.
- Upcoming weather condition information.
- Market Information
- News related to the farmers.
- Voice send /receive to the experts.

The following figure will show the exact description of farmer's module of this system. In the following figure we can see the working scenario of the system from the farmer's perspective. They need to register for the first time to use the system. After registration the users credential will save into the database and from there they can login to the system.

After login the will get interaction panel from there they can select any on according to the need. If they wanted to know the weather condition they can go for weather option provided on the interaction panel. If they wanted to take advice from the experts they select expert advice from the interaction panel.

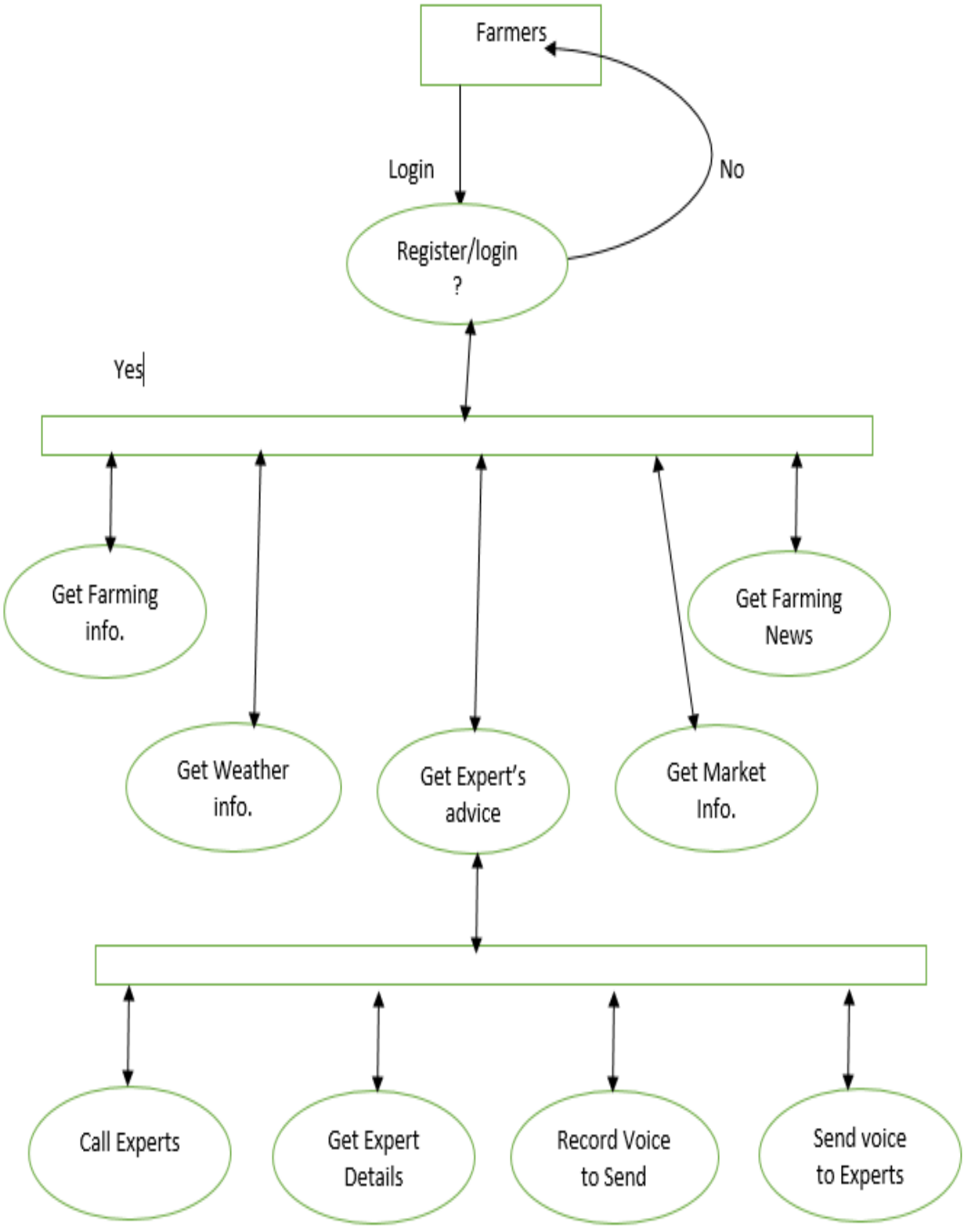


Figure 3 (Farmers Module Description)

Module 2- Agro Experts:

Agro Experts module of this system will provide the frequent answer to the farmers according to their query. Expert responsibility is to attend the call of from the farmers and give them a better assistant as they needed.

Expert will be added by the controller of this system. And controller will allocate the expert's details to the farmers by which they can easy contact and get better assistant. Experts would get query on his email as a recorded voice or text as well as call. They can download the voice sent by user and can provide assistant to them on his registered email.

User will get following interaction panel with the Agro expert of several categories.

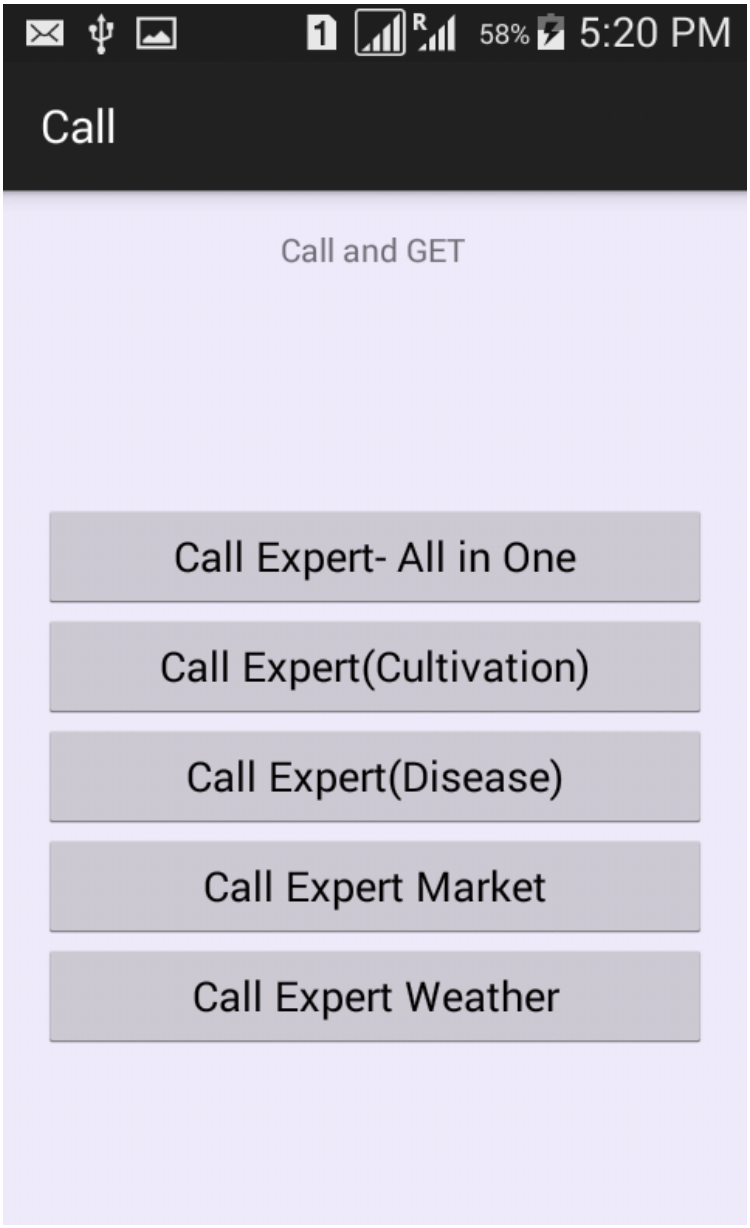


Figure 4 (Users prompt To contact Experts)

And the Controller will get following panel to add new expert, which will be look like.

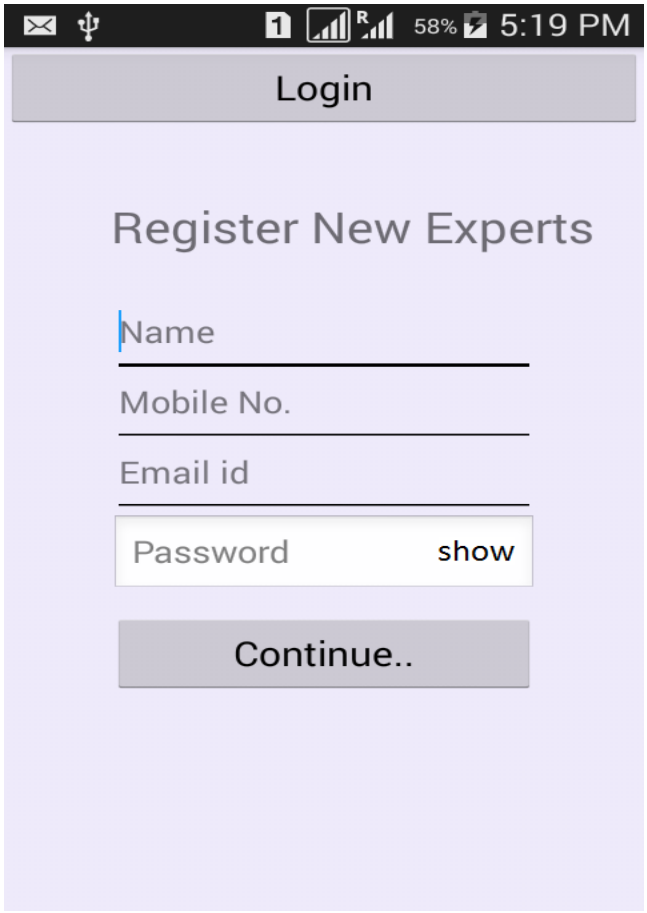


Figure 5 (Add Controller)

Module 3- Controller:

The controller indicate the admin of this system who will be responsible to manage this system. And so that system can serve the farmers easily. Work of controller is to add or remove the Experts. Provide the experts details to the farmer so that farmers can interact with the expert. And controller works is to maintain the database. And controller will also be the responsible for upgrading the version according to the user's needs. As we all know that mobile configuration are changing very frequently so that controller needs to upgrade this system time.

Architectural Design of This System:

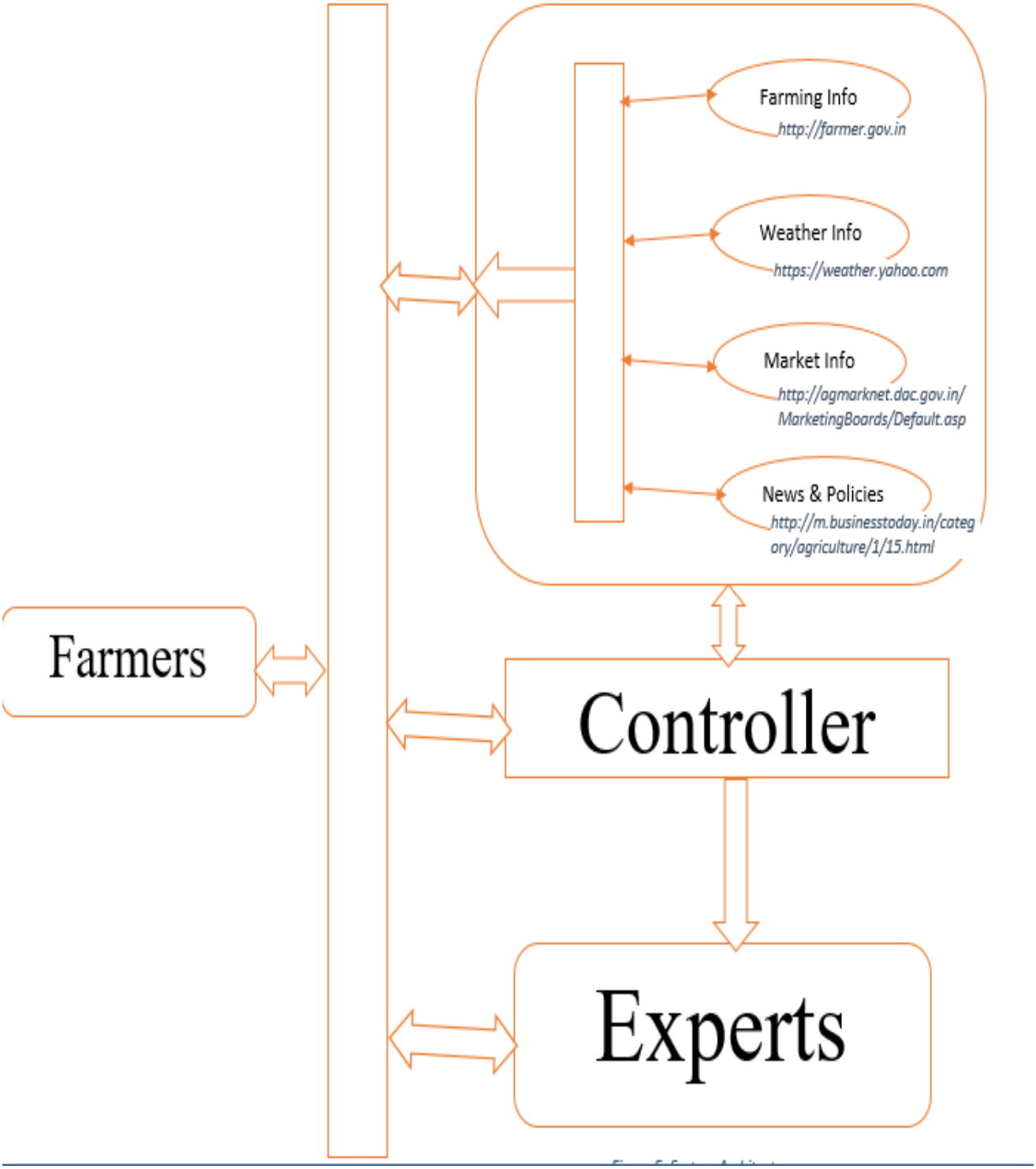


Figure 6 (Complete System Architecture)

Architecture shows how the users are interacting with the system and how the data are transferring among them. It will provide the flow of the interaction between the users of this system. As we can see the architecture the farmers (users), how they are interacting with the various portals of government to access the relevant information

And the layout of this system is given that will provide the 'proceed' buttons to the user to move the next part of the system where they can get register to use this system. One more important thing is that each of the modules users must be registered with this system to access their panel.

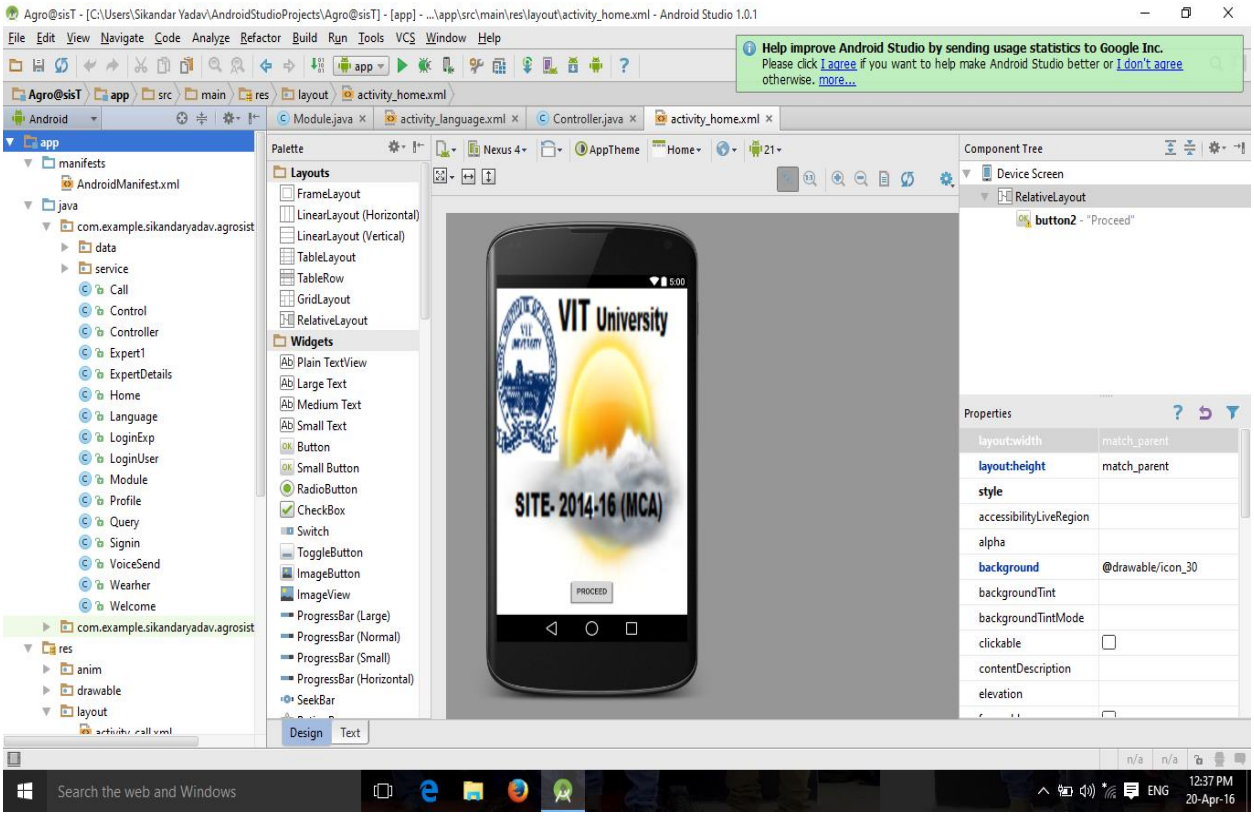


Figure 7 (Home Screen of system)

By clicking this proceed button users can get login and registration page of this system.

CHAPTER 5

MATERIALS

SQLite:

SQLite is used in this project as the back-end of the projects. It implements most of the SQL standard, And SQL standard usage a dynamically and weak typed SQL procedure that is not responsible for domain integrity. Its operation can be the multitasking operations though writes can only perform sequentially. Its source code is in public domain. SQLite has many bases to the programming languages. SQLite is most popular database used in many domains to organize our data in a proper manner and improve the availability and reliability of the data. And I am using Android Studio as the platform to develop this project so that we do not need to install separate database to store the data because the SQLite is already inbuilt with android studio.

Android:

Android is an operating system used in mobile devices, it's based on Linux kernel and currently Google is developing this technology and its Google has provided the facility to use this technology in touchscreen mobile device like smartphones and tablet computers.

Android is a mobile operating system developed by Google. It is used by several smartphone, such as the Motorola Droid, the Samsung Galaxy, and Google's own Nexus One.

The Android operating system (OS) is based on the open Linux kernel. Unlike the iPhone OS, Android is open source, meaning developers can modify and customize the OS for each phone. Therefore, different Android-based phones may have different graphical user interfaces GUIs even though they use the same OS. Android lifecycle is given in the following figure that will elaborate the android technology much better than the theory.

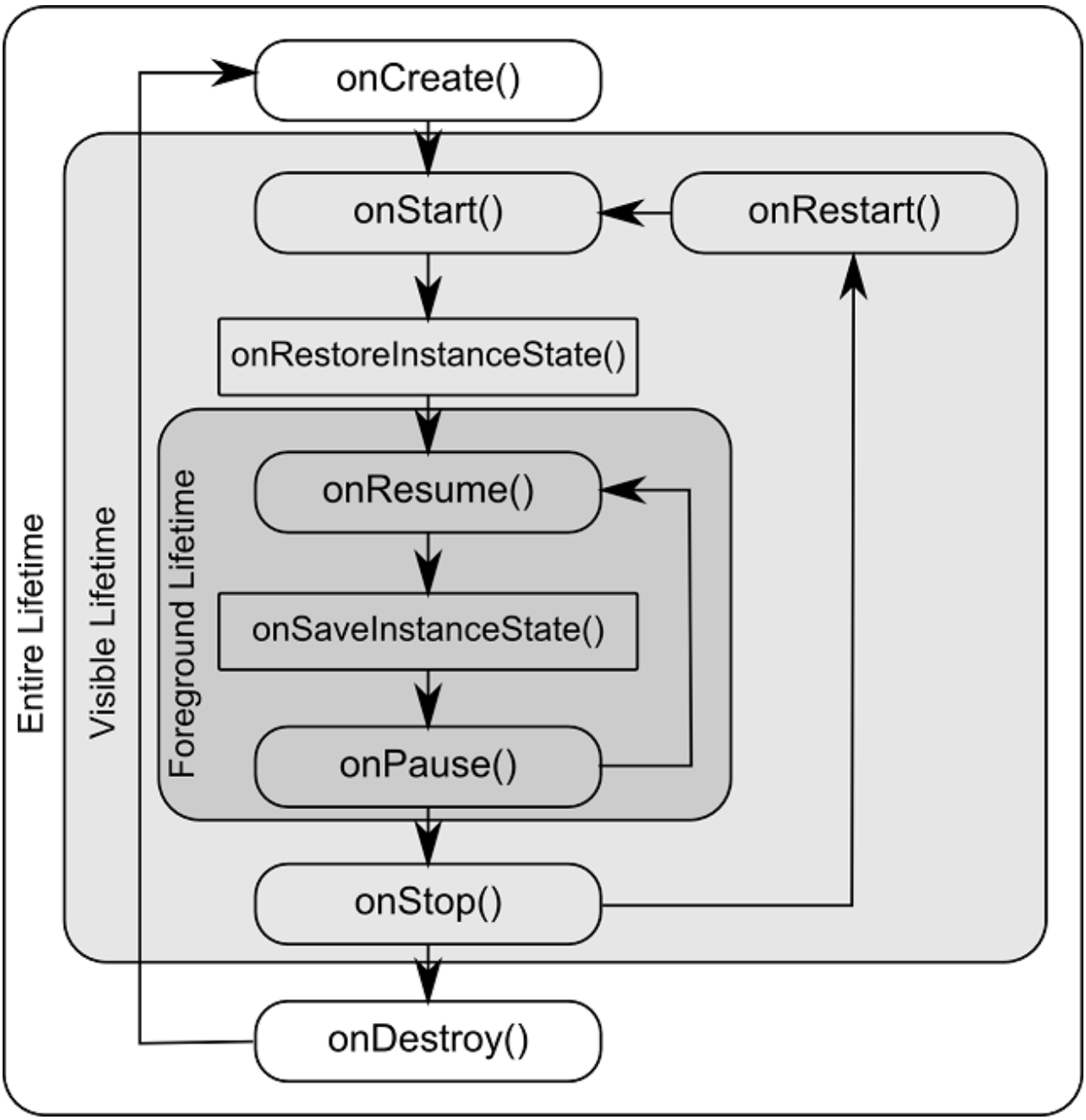


Figure 8 (Android Activity lifecycle)

This lifecycle of android studio shows that how the process are created by the use of onCreate () methods and after that how to start the activity by the onSart () methods etc.

Android Studio

Android studio is an IDE for developing android application like eclipse and phongap, like phongap we do not need to make HTML, CSS and JAVASCRIPT for development. In this we need to prepare XML and JAVA file to develop an application.

Android studio is a more powerful developing tools provided by inteliJ. Android Studio offers even more features that enhance your productivity when building Android apps, such as:

- A flexible Gradle - based build system
- Build variants and multiple APK file generation
- Code templates to help you build common app features
- A rich layout editor with support for drag and drop theme editing
- Lint tools to catch performance, usability, version compatibility, and other problems
- Code shrinking with ProGuard and resource shrinking with Gradle
- Built-in support for Google cloud platform, making it easy to integrate Google Cloud Messaging and App Engine

Project Structure in Android Studio:

Each project in Android Studio contains one or more modules with source code files and resource files. Different types of modules include:

- Android app modules
- Test modules
- Library modules
- App Engine modules

By default, Android Studio displays your project files in the *Android* project view, as shown in figure 1. This view is organized by modules to provide quick access to the key source files of your project.

All the build files are visible at the top level under **Gradle Scripts** and each app module contains the following three elements:

- **Manifests**: Manifest files.
- **Java**: Source code files.
- **Res**: Resource files.

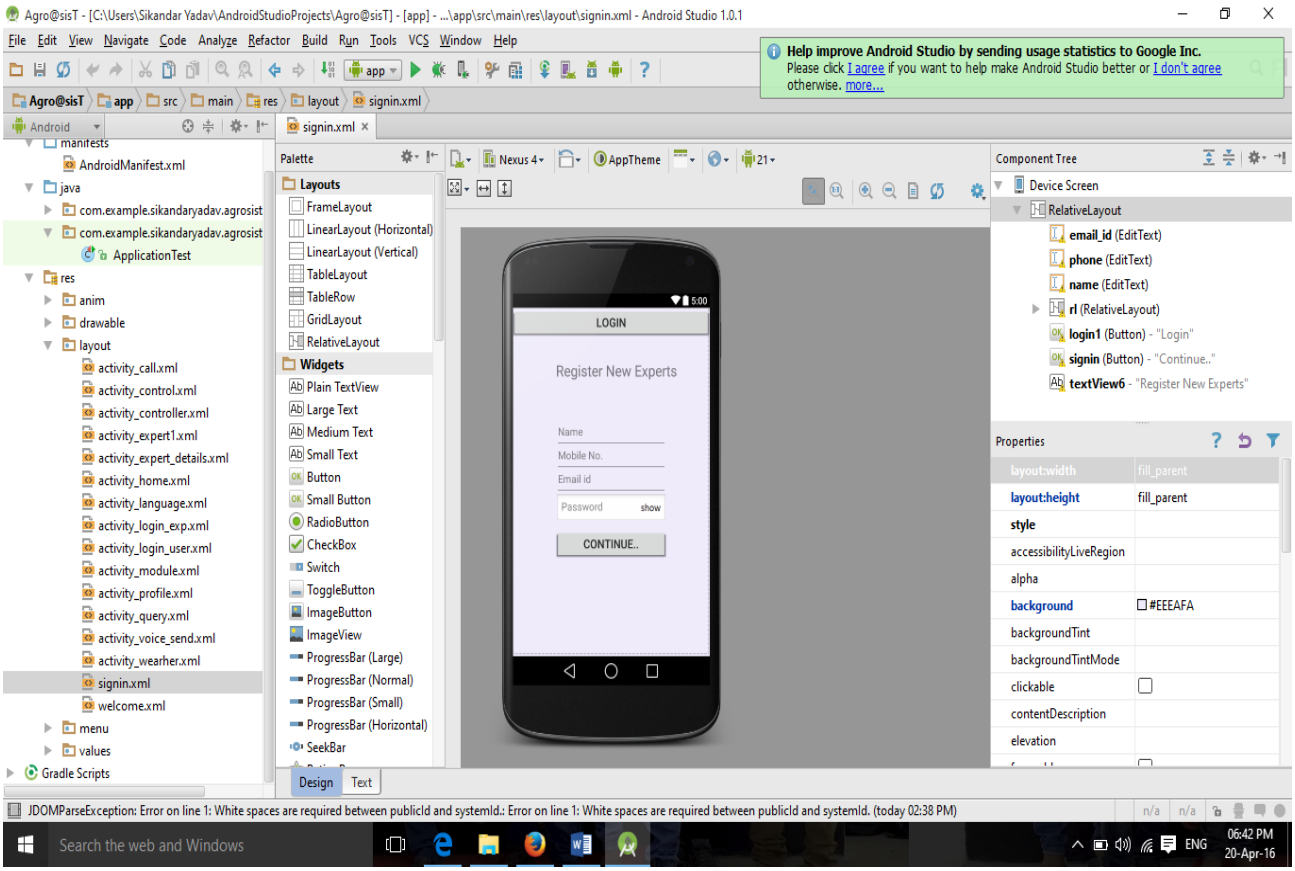


Figure 9 (Android Project Structure)

METHODOLOGY

Software engineering is the discipline whose aim is:

1. Production of quality software
2. Software that is delivered on time
3. Cost within the budget
4. Satisfies all requirements.

Software process is the way in which we produce the software.

A software life cycle is the series of identifiable stages that a software product undergoes during its lifetime. A software lifecycle model is a descriptive and diagrammatic representation of the software life cycle .A life cycle model represents all the activities required to make a software product transit through its lifecycle phases.

LIFE CYCLE MODELS USED IN THIS PROJECT:

WATERFALL MODELS: *This model contains 7 phases:*

Feasibility study:

The feasibility study activity involves the analysis of the problem and collection of the relevant information relating to the product. The main aim of the feasibility study is to determine whether it would be financially and technically feasible to develop the product.

And in this project, I have identified that the problem related to the farming is becoming a very serious issue that can affect our social as well as daily routine life. For this project I have identified that to solve this problem we need the following consideration.

We should have connected with the internet. So it's not a serious problem because of great improvement telecom companies. And we need to have device to use this system so we are in mobile area most of the Indian people are using smartphone. So that they can use this system in his/her own mobile to avail the facility.

Sources that are need to access the information are freely available to access and can access the information from the government of India websites. And many other websites to access the information and provide that to the farmers.

Requirement analysis and specification:

The goal of this phase is to understand the exact requirements of the customer and to document them properly. This phase of SDLC is bounded for gathering the requirements that is needed for the further processing. Some of the requirements are given in the following.

- Who is going to use this system?
- What is the purpose of this application?
- What will be the system requirement for the development?
- What are the stakeholders?

And the milestone of this project are recorded into this phase of the SDLC.

Design:

The goal of this phase is to transform the requirement specification into a structure that is suitable for implementation in some programming language. The recorded requirements are designed into this phase of the SDLC. Design consist of the instruction based on any programming language.

This phase of the development is for providing the interaction modules to the users. And it is the way to identify the needs how the requirements will be fit into the design. In this project I have made several numbers of activity for the different – different users. Graphical user Interface (GUI) are provided into this system to make the easy use of this system.

Following is the Login Layout that will made available to the user for login into the system.

Figure 10 (User Login Prompt)

This login page is consist of two field mobile No. and the password that will user got from registration part by clicking the signup button provided on the top corner of this layout.

And whenever Farmers needs to get advice from the experts they not need to do go with any serious stuff they can simply record his voice and can send it to the provide experts so that experts can reach to the farmers with required solution.

The Interaction panel is very easy to navigate and understand because of its GUI platform. We can see the following figure that will elaborate the working scenario of this panel.

In the figure no.-7, the attachment button is there for attaching the audio file and the other field like email, subject and message field is the fields for elaboration of the problem, and after filling all these details the farmers can send this to the experts. And farmers can get experts details from his panel.

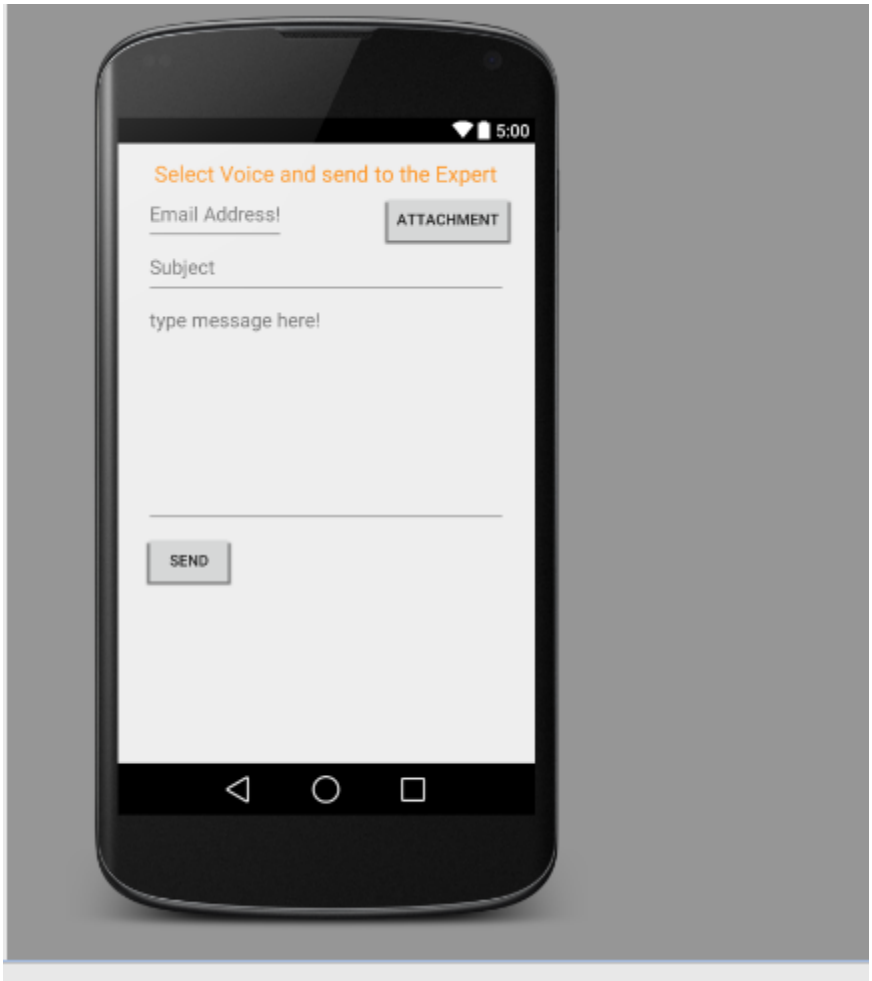


Figure 11 (User's prompt to send audio)

Coding:

During this phase the design is coded in a particular language and we chose the language for development of this project is Android programming that usage JAVA code for the development.

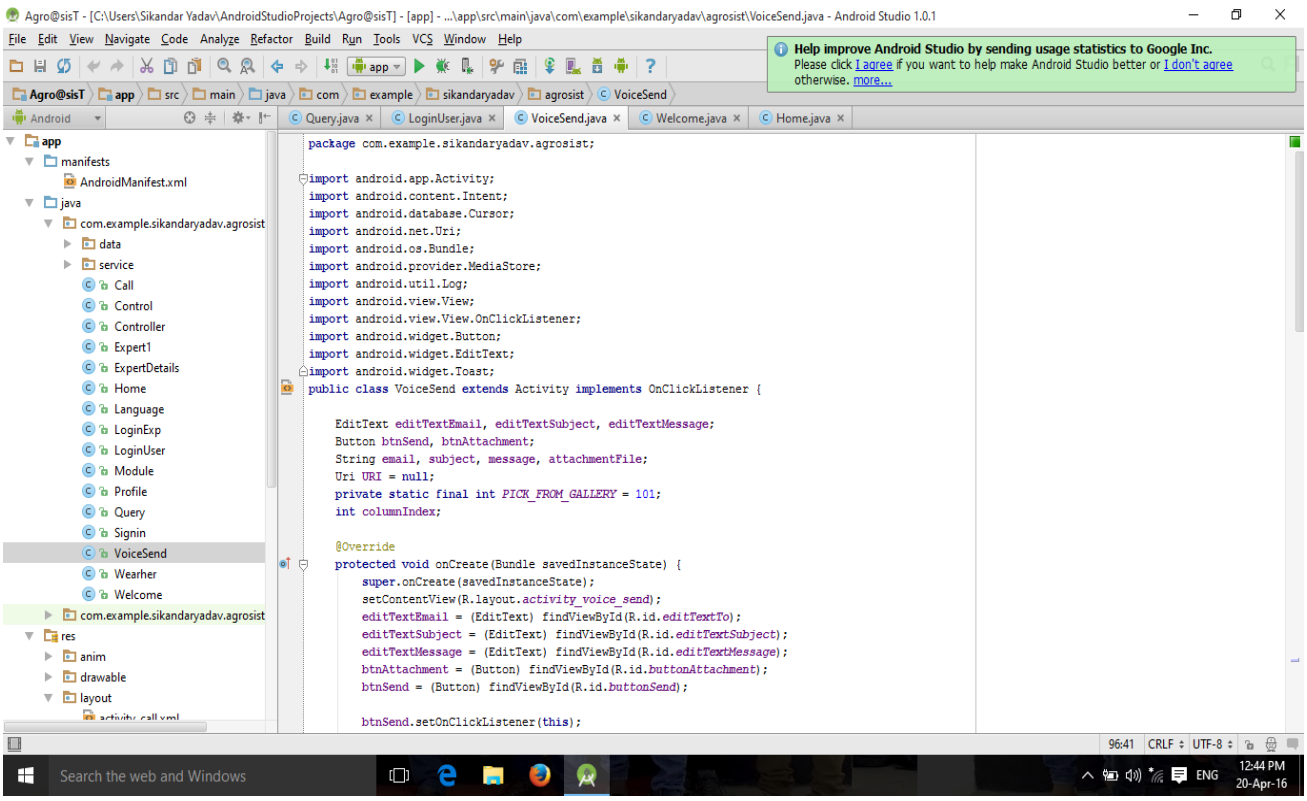
In this phase of development I have coded the each activity to give the functionality to its components. Show that it can work accordingly. We can see in the given figure No- that contains the code for The Home Activity of the project.

HomeActivity.java

```
package com.example.sikandaryadav.agrosist;

import android.content.Intent;
import android.support.v7.app.ActionBarActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;


public class Home extends ActionBarActivity implements View.OnClickListene

    private Button proceed;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_home);
        proceed=(Button) findViewById(R.id.button2);
        proceed.setOnClickListener(this);
    }


    @Override
    public void onClick(View v) {
        Intent intent = new Intent(this, Language.class);
        startActivity(intent);
        finish();
    }
}
```

Figure 12(sample Code of Home Activity)

And the following code is to attach the audio file to send the experts and for opening the gallery to attach the audio by selecting from the phone. An interaction panel is given to the farmers to record their voice by click a simple start and stop button. To select and send these files, the sample code is given in the following.



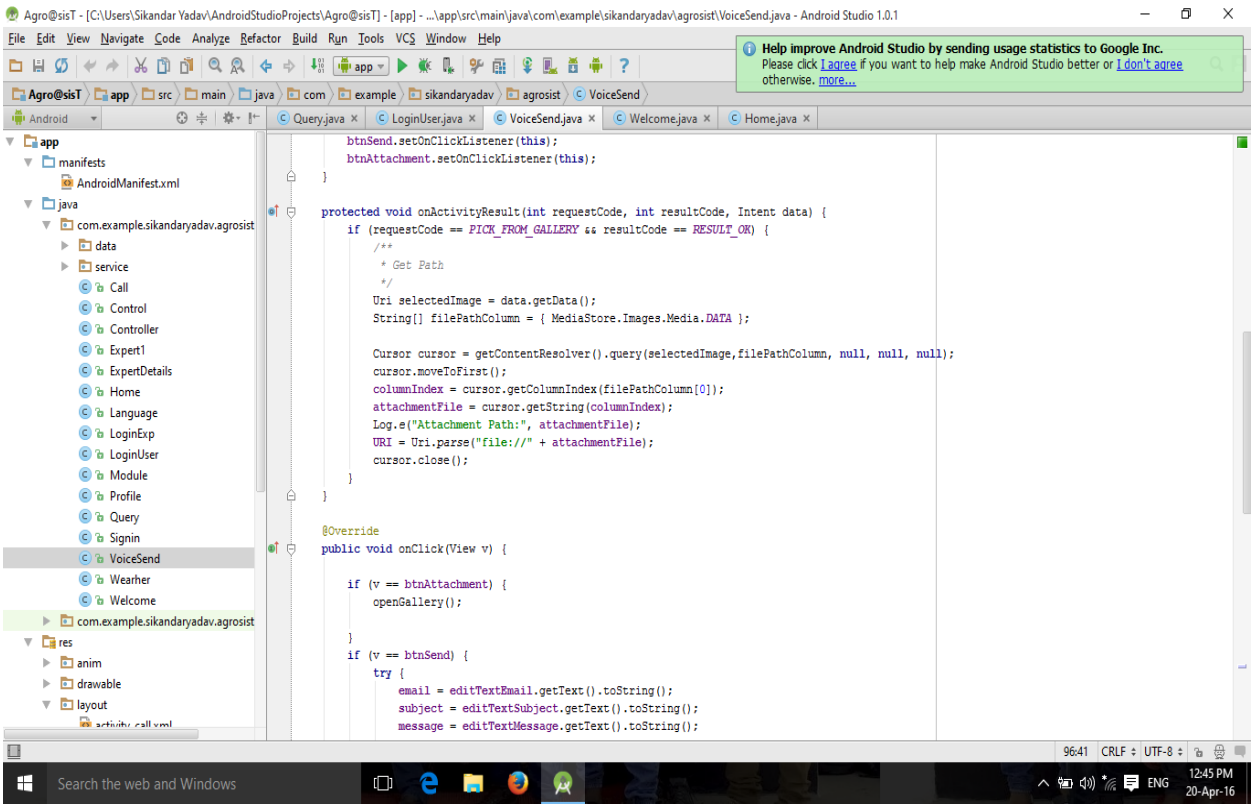


Figure 13 (Sample code to send audio)

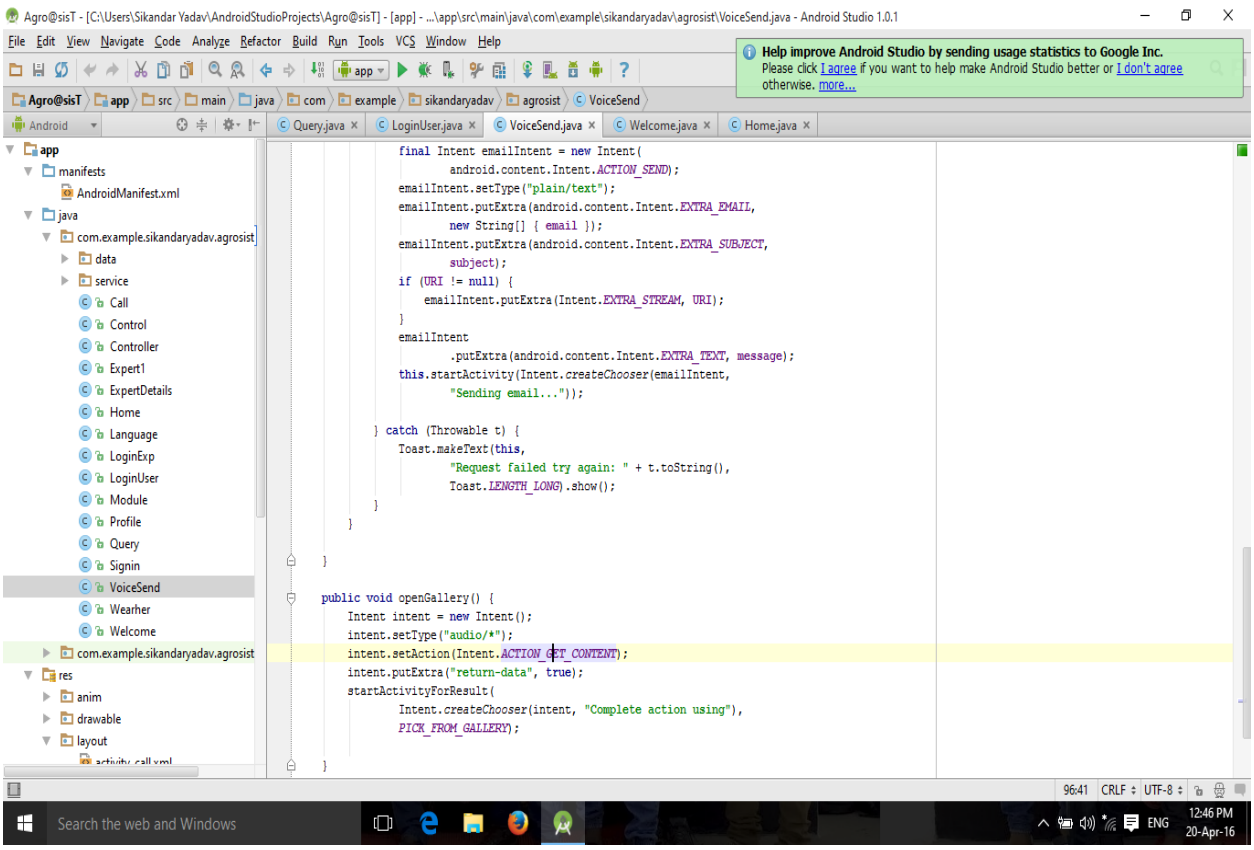


Figure 14 (Sample code to attach audio)

Implementation and unit testing:

During this phase the design is implemented. Initially small modules are tested in isolation from rest of the software product. Integration and system testing in this all the modules are integrated and then tested altogether.

After successful completion of our design and coding, we needs to check or test the application is working properly or not, each and every parts should work properly. That will be test in this phase of the developments.

Let's start with the weather activity, in this activity when the users click on the weather button weather of that particular location should be shown. We can see in the following figure its shows that the result after clicking the weather button of the app.

Figure 15 (Snapshot of weather working module)

Now we can see that after clicking the weather button it's showing the exact weather condition and it's also showing the prediction for the next some five days. That is very useful to the Indian farmers to be the pre-planned for the upcoming days.

And we can test the farmers button provide to the users, by clicking that button users can get the user panel from there they can get each and every knowledge regarding the farming provided by the farmers portals. Let's see how the farmer's portal prompts to the user, and what facility they can get from there.

Figure 16 (Snapshot of farmers portal)

From the above portal farmers can select any of the option in any language they can get relevant information. Regarding crop, seed and whatever they needed. Following information they can get from this portal

- Crops description suitable for particular season.
- Solution for the Diseases that are harming to the crop.
- Market price of the product that they wants to purchase or sell.
- Market location to purchase or sell the product at best price.
- Planes that are provided by the Indian government (description)

After checking farmer's button we will proceed with market info button, let's check is it working

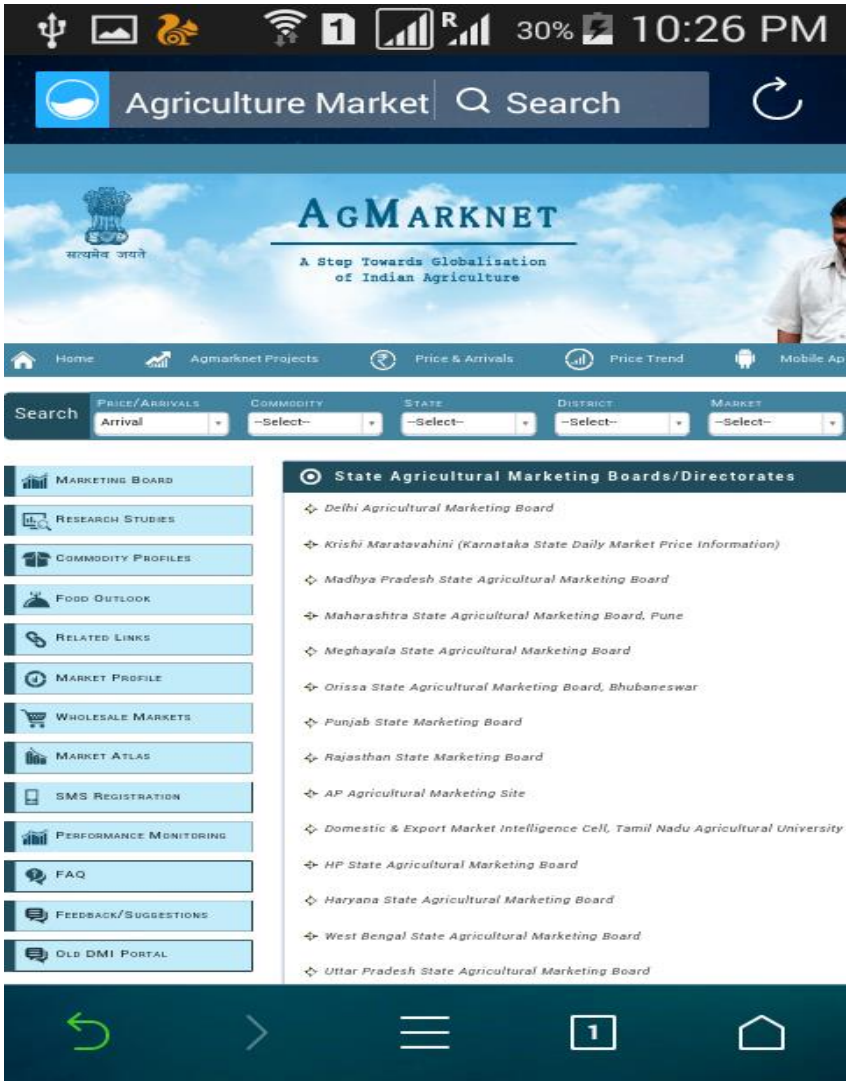


Figure 17 (Snapshot of Market portal)

properly or not, input will be the single click on market image button provided into user's panel. Then the output should be the market information regarding farming should provide to the users. The above figure show that this system is working properly for the market button click.

Its show the zone wise market information to users to access the same. Users can select the field value provided on the menu bar of the market portal and according to that they can search information. They can get the following market boards information.

- Delhi Agricultural Market Board
- Karnataka State Daily Market Price
- Madhya Pradesh State Agricultural Market Board
- Maharashtra State Agricultural Market Board
- Meghalaya State Agricultural Market Board
- Orissa state Agricultural Marketing Board, Bhubaneswar
- Punjab State Marketing Board
- Rajasthan State Marketing Board
- AP Agricultural Marketing Site
- Domestic & Export Market Intelligence Cell, Tamil Nadu Agricultural University and Agri Marketing Board, Tamil Nadu
- HP State Agricultural Marketing Board
- Haryana State Agricultural Marketing Board
- West Bengal State Agricultural Marketing Board
- Uttar Pradesh State Agricultural Marketing Board
- Gujarat State Agricultural Marketing Board
- Jharkhand State Agricultural Marketing Board
- Goa State Agriculture Marketing Board
- Maharashtra State Agriculture Marketing Board

By selecting any of that market listed above users can get information regarding that particular market. And they also can get so many info from this portal regarding market, and they can register their mobile number on that portal to get direct alert on the mobile.

The news button also should be tested, the input will be the single button click on the news button provided to the users in their panel so the output should be the news related to the Indian farmers.

This portal refers to the business today agriculture portal, so that I have connected my system to this portal to get latest news and update regarding Indian farmers. Se we can see the following figure that will give the look of this portal.

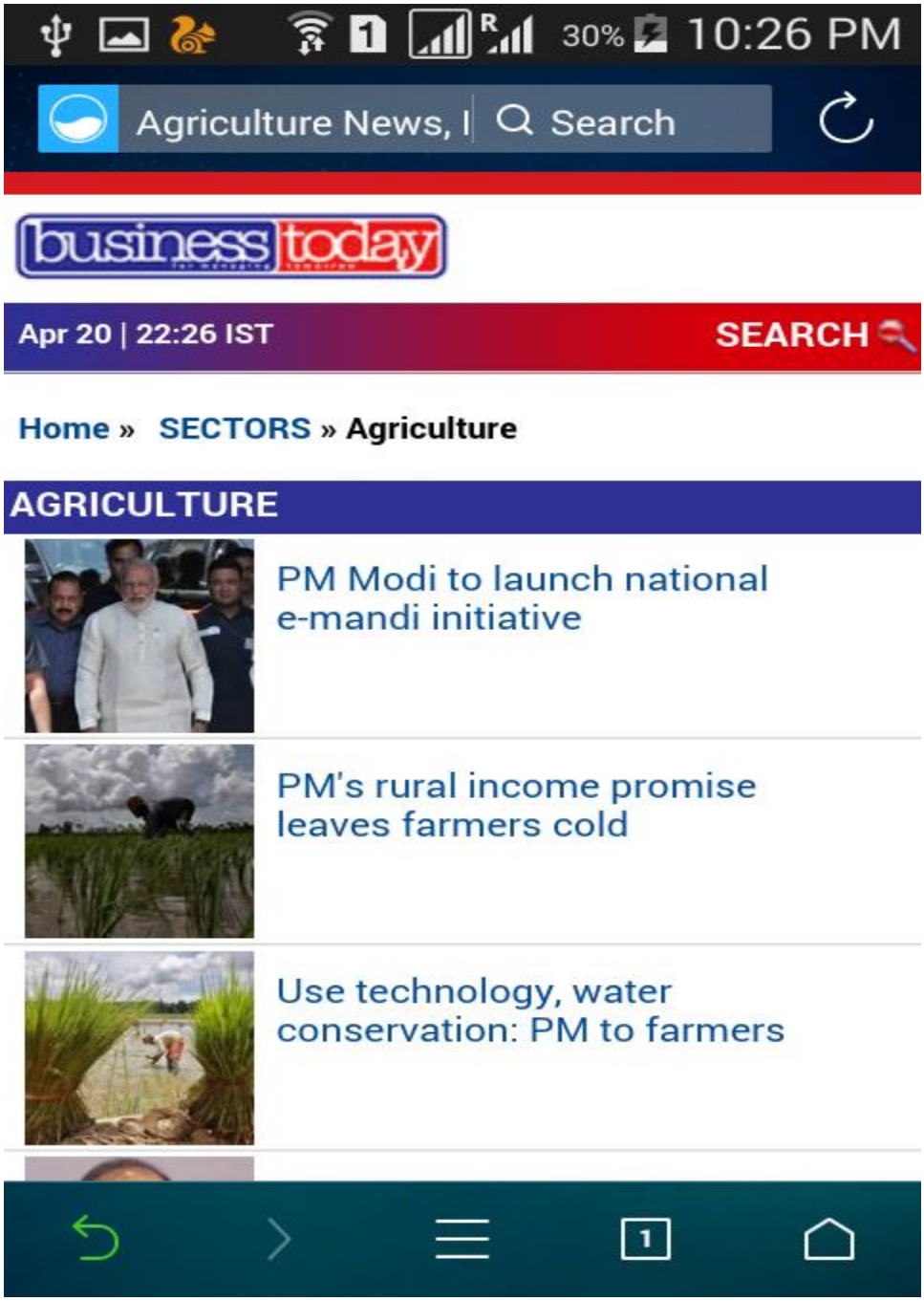


Figure 18 (Snapshot of news portals)

And in the last, recording button should be tasted, in this input will be the single button click to start recording and one single click to stop the recording, so by clicking the start button it will start the recording of audio that can be send to the experts for getting the solution. Once the recording is over users' needs to click the stop button to stop the recording. Let's have look on that-

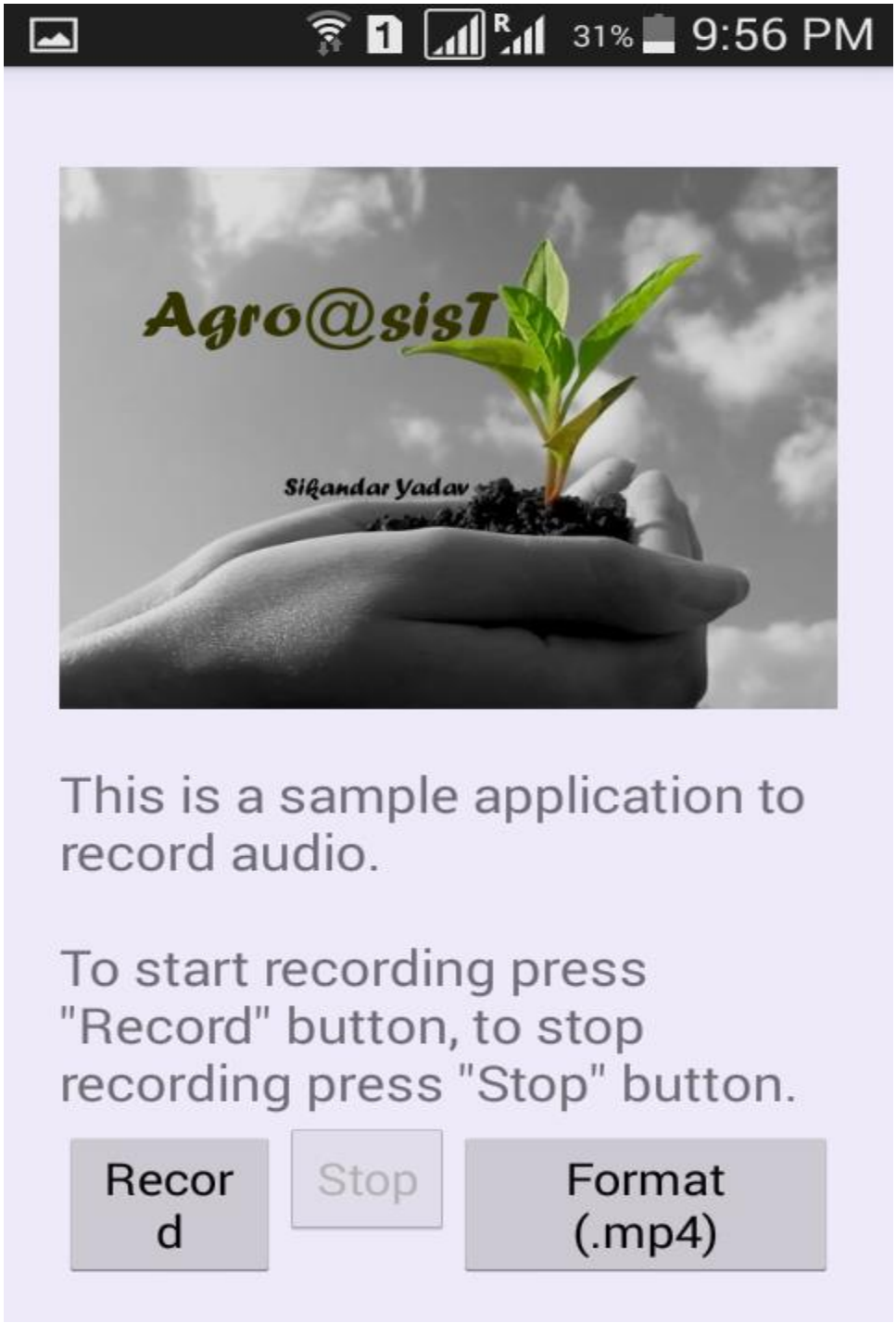


Figure 19 (Snapshot of voice recording portal)

They will also be able to select the format whatever format they wants to send to the experts either .mp4 or .mp3.

One more thing should be tested and implemented that is admin role in this, the role of admin is to add more number of experts with this system so that user can get good information from the particular experts of the particular area.

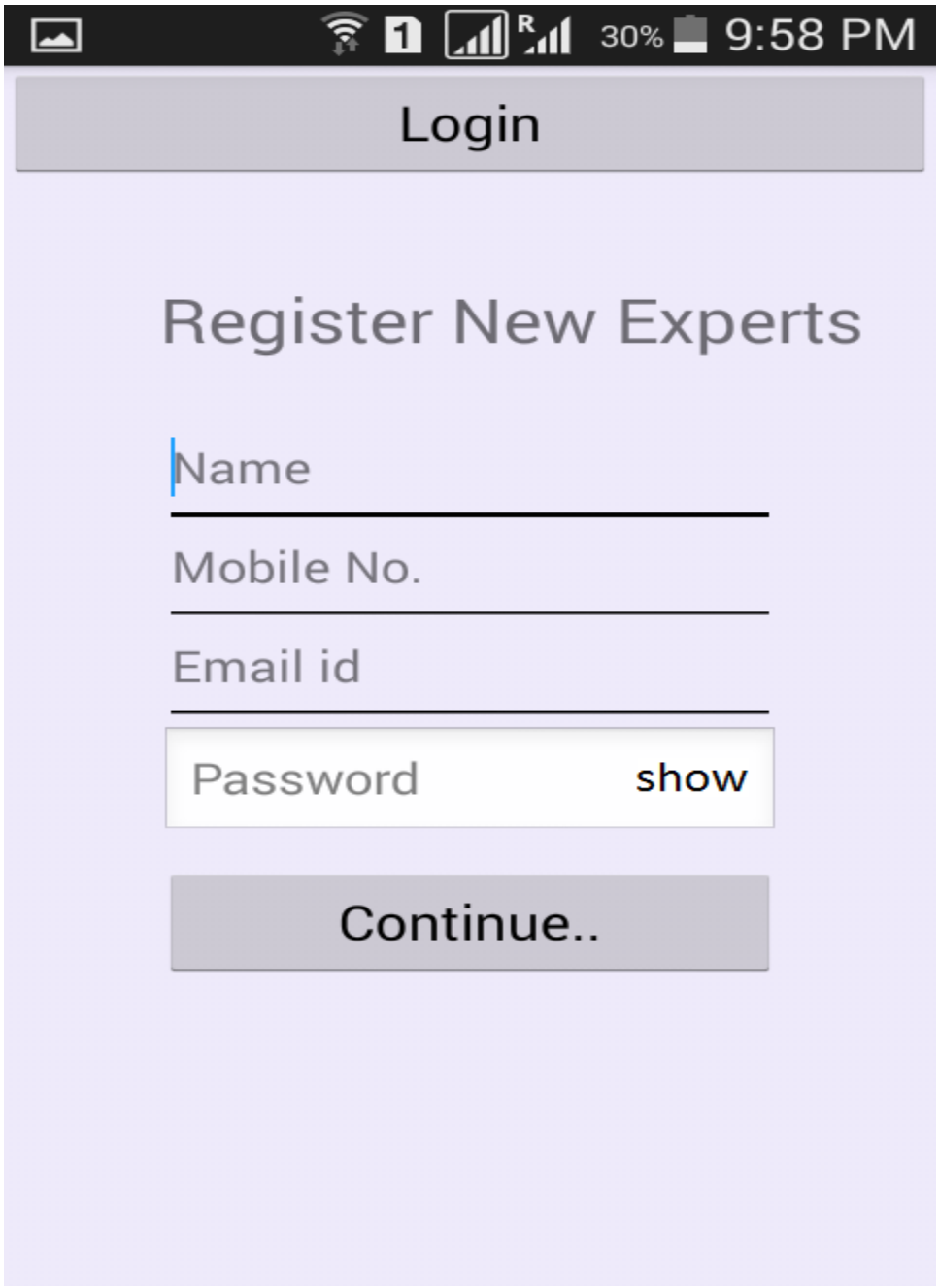


Figure 20 (Snapshot of Controller module to add experts)

Admin will gets the login prompt to this system and from there they can add the experts. They will gets above form to add the admin. After filling the form when admin will click the submit button, so that he/she will get confirmation message whether experts successfully added or not.

Operation and maintenance

Release of software inaugurates the operation and life cycle phase of the operation. The reason why I choose this methodology (waterfall model) for development of this project because I was previously cleared with the problem definition that are very clear, which cause the farming activity. So I found that the waterfall model is suitable for this projects.

This phase of developments is deployment phase, in this the developers need to give the assurance to the client that the system will work properly till what time and what will be the circumstances if the system will fail in between the contract.

The whole working diagram of the selected model that is waterfall models is given in the following.

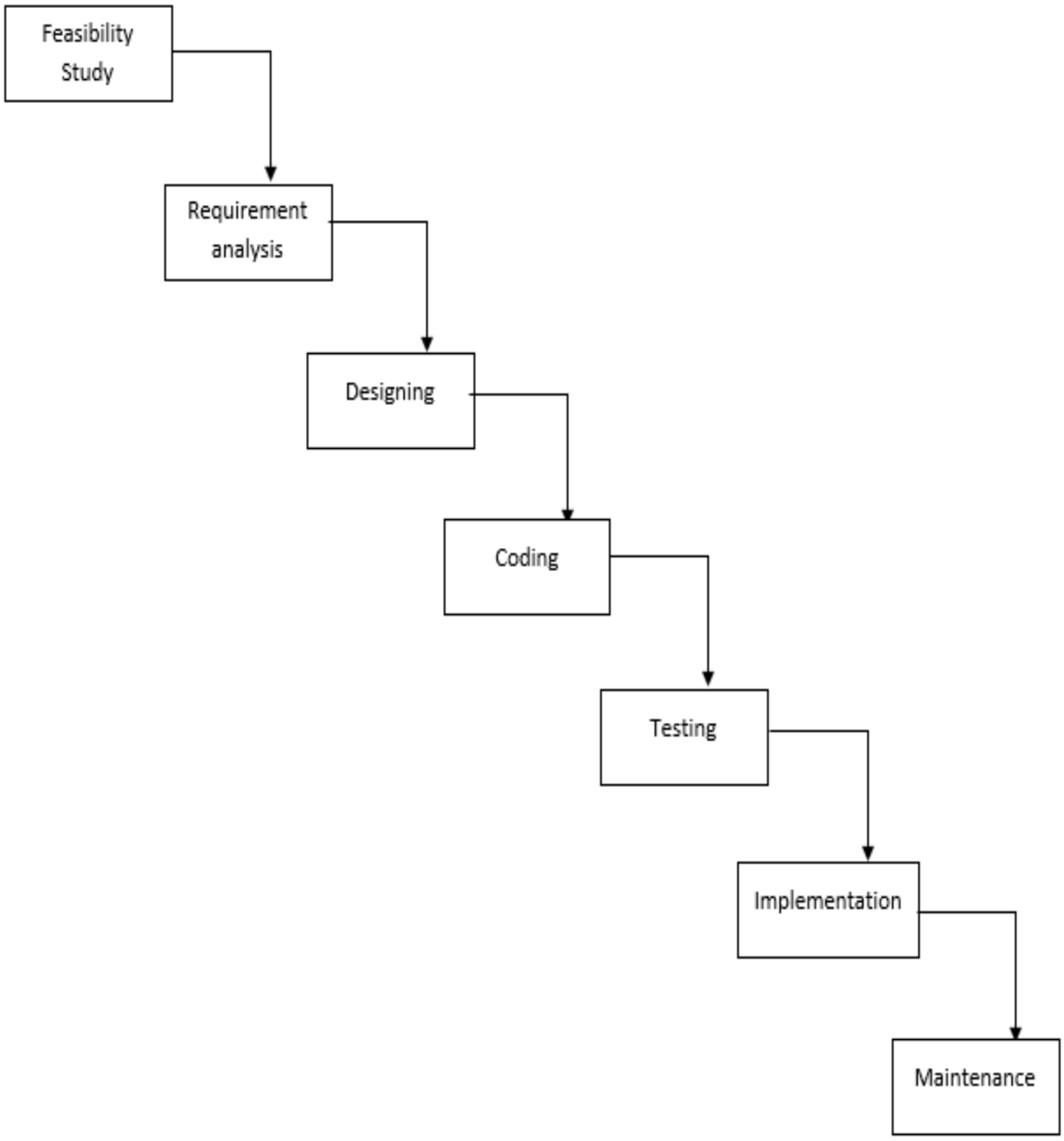


Figure 21 (Waterfall Model)

CHAPTER 6

RESULTS AND DISCUSSION

RESULTS AND POSSIBLE TEST CASES:

Testing plays an important role in software development. It provides the result to the developer after completing the developer task. In this project there are following units that are needs to be tested.

a. In scope

- Registration
- Login
- Function test
  - I. Call to the experts
  - II. Get expert's details
  - III. Record voice to send
  - IV. Send voice

b. Out scope

- Performance test
- Configuration test

A. In scope

- **Registration**

Test ID	Test case	Expected output	Actual output	Remark
1	Name length<3 Name == " " Name == null	Please Enter Correct Name	Please Enter Correct Name	Pass
2	Mob_no. length<10 Mob_no.=null Mob_no.=" "	Please Enter Correct mobile number.	Please Enter Correct mobile number.	Pass

3	Email_id length<10 Email_id= null Email_id=" "	Please Enter Correct Email id.	Please Enter Correct Email id.	Pass
4	Password length <6 Password=" " Password=null	Please Enter Strong Password.	Please Enter Strong Password.	Pass

Table 1 (Registration test)

- **Login**

Test ID	Test case	Expected output	Actual output	Remark
1	Mob_no. length<10 Mob_no.=null Mob_no.=" "	Please Enter Correct mobile number.	Please Enter Correct mobile number.	Pass
3	Password length <6 Password=" " Password=null	Please Enter Strong Password.	Please Enter Strong Password.	Pass
4	Mob_no.>=10 Pass match with DB password	Redirect to the Module panel	Redirect to the Module panel	Pass
	Mob_no not match with DB Mobile no or mob. not match with DB pass	Wrong Password or Mobile number.	Wrong Password or Mobile number.	Pass

Table 2 (Login Test)

- **Function test**

Test ID	Test case	Expected output	Actual output	Remark

1	Call Expert button= onClick()	Open call panel	Open call panel	pass
2	Get Expert Details button= onClick()	Open display panel of expert	Open display panel of expert	pass
3	Record voice button= onClick()	Open Recording panel	Open Recording panel	pass
4	Send voice button= onClick()	Open send panel	Open send panel	pass
5	Farmers button= onClick()	Redirect to http://farmer.gov.in/#	Redirect to http://farmer.gov.in/#	pass
6	Weather button= onClick()	Redirect to https://weather.yahoo.com	Redirect to https://weather.yahoo.com	pass
7	Market button=onClick()	Redirect to http://agmarknet.dac.gov.in/MarketingBoards/Default.aspx	Redirect to http://agmarknet.dac.gov.in/MarketingBoards/Default.aspx	pass
8	News button= onClick()	Redirect to http://m.businesstoday.in/category/agriculture/1/15.html	Redirect to http://m.businesstoday.in/category/agriculture/1/15.html	pass

Table 3 (Function Test)

B. Out scope

Configuration test- minimum sdk required to compile this app is sdk-16

OS required to run- Android Kit-Kat 4.4

Development tools required – Android studio 1.0

Results and finding

General:

In this section of thesis writing I will show what the findings are and how the results are taking care about the findings. There are following reason which makes the situation to take this into the consideration.

I have suggested the way by which the farmers can get expert advice. That method is given in the following.

- Direct call method (Between experts and farmers)
- Several categories of experts provided to the farmers
- Email method communications.
- Voice sharing methods for communications
- Weather coasting information provided to the farmers
- Market News portal provided to the farmers
- Business News portals provided to the farmers
- Farming portal provided to the farmers
- Base of communication is mobile device

Direct call methods

This method provide the facility to connect the farmers with the experts, there may be the other way of communication but this way is easy and fast in which the farmers can get instant solution for their problem.

Several categories of experts provided to the farmers

This system provide the categories of experts so that there will not be any confusion to the user like experts should they contact. They can easily select a category like (Marketing related expert, Diseases related experts, weather related experts etc.).

Email method communications:

Email exchange facility provided to the farmer to communicate with experts is there for supporting them to contact and make use of mobile facility in the farming activity.

Voice sharing methods for communications

This system has very strong facility for the user to record their voice and send that to the expert, this for those people who are less educated and not able to express their feelings directly to anyone. So they can select this way of communication for the help.

Weather coasting information provided to the farmers

The portal connected to this system is providing the upcoming 5 days of weather forecasting, which will make use of this technology to be the preplanned for the upcoming uncertainty.

Market News portal provided to the farmers

Business today news portal is connected to this system to provide the farming related news and the policies provided by the government to the farmers, by accessing this system they can be currently aware by the news and the government's offers.

Farming portal provided to the farmers

One of the best farming portal is connected to this system to get all the relevant information related to the farming in the several languages. And I found this portal is best for those also who have not well educated, it means the interaction portal is too easy to understand by any one.

Base of communication is mobile device

The communication base I have selected is mobile device because the now a days most of the people are using mobile device as it's their primary needs. So I thought that if the information sharing base will be the mobile device so it become most suitable. With mobile handsets being used in nearly every country and community, the development

of applications for them offers uses that extend well beyond voice and text communications.

Mobile applications for agricultural and rural development could provide the most economic, practical, and accessible routes to information, markets, governance, and finance for millions of people who have been excluded from their use.

The following figure will show the reason the why I gone through the mobile device. Because of Number of increasing Mobile users and the internet users see the figure 22-

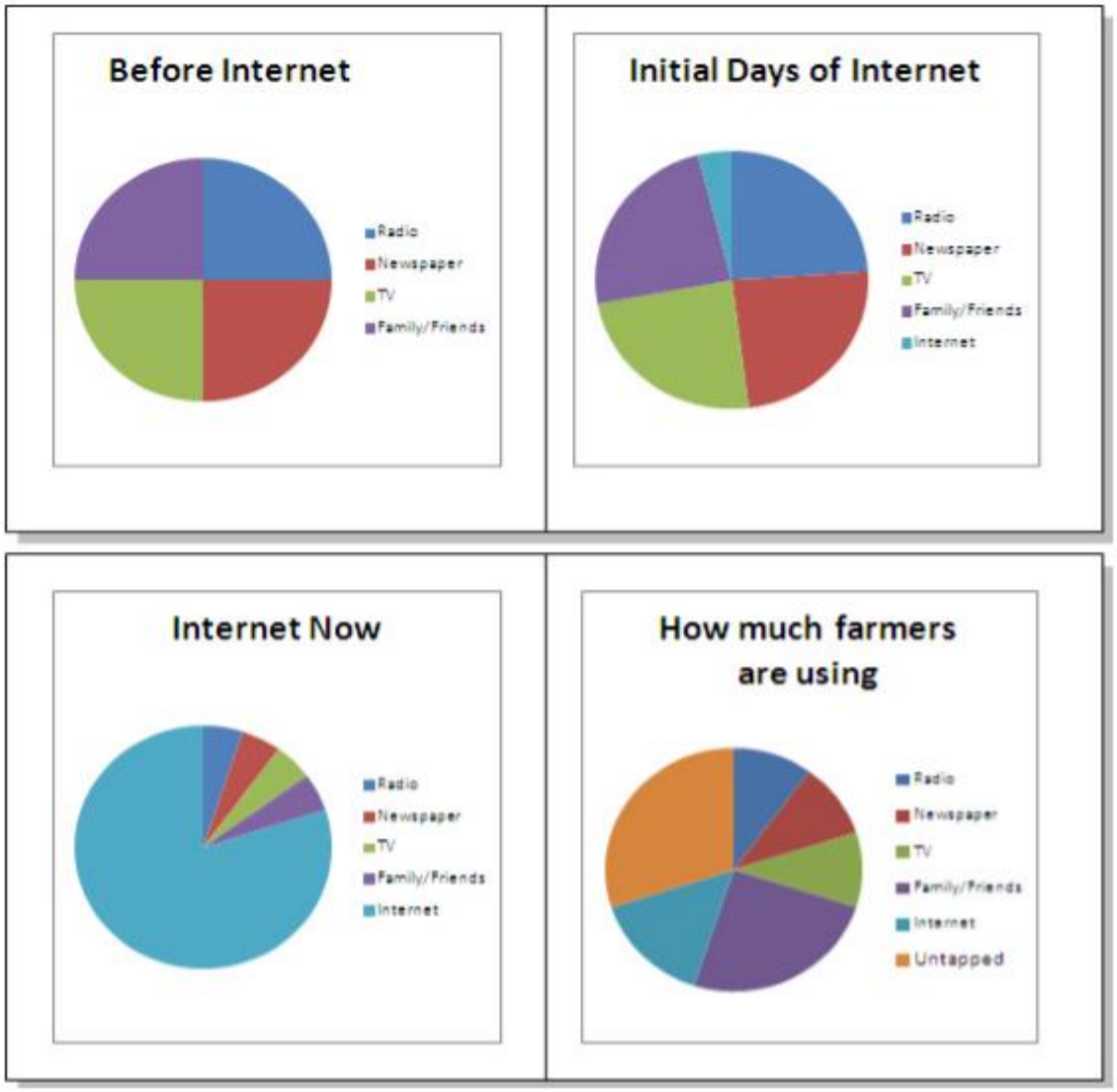


Figure 22 (Internet evolutions)

Discussion

In this section of this paper I will discuss all the approaches, ideas, methods, and its benefits and the reasons of selection of that ways. Let's start with the very first there are following questions should be answered.

- Why this project is selected for the thesis?
- What is the way have followed in the completion of this?
- What will be the future scope of this?
- Is there improvements required in future?

Why this idea is selected for the final project?

The main reason to select this project is for my thesis is that is the only place where I can provide the solution two the people who is really required. As for selection of this project the main reason is I belongs to the farmers family and I can understand the problem which we are facing in real life during the farming activity. And now I am at the point where I have to provide a project to our college for my final degree. So that I have selected this idea for my final thesis.

And the main thing is that the people are avoiding to go with the farming activity because of the less income and hard work required in the farming activity. Youngsters don't wants to go with this that is the big problem because previously I have discussed that 70% of Indian economy is dependent on the agriculture.

Increasingly fewer young people in developing countries are aspiring to lives as farmers. The trend is not new, nor is it a problem faced only by poorer nations. What we now have is a better sense as to why it is happening.

The following most occurrences findings are related to youth avoidance:

- Youth want to be better educated to get good jobs.
- Farming is mentally and physically challenging.
- Youth don't consider agriculture as a future in part because of a lack of access to inputs and land.

- Changing norms, especially for women, are creating new opportunities to seek education, employment, etc.

  Education is one of the key components, but that does not necessarily lead to employment. In many instances, government jobs were found to be the most desirable for their stability. The trouble is that there are only so many and there are countries where bribes are necessary to reach such positions. Parent after parent expresses the desire for their children to live a life better than their own.

What is the way have followed in the completion of this?

In the next part of discussion, it's the need to be discussed that way I have followed in the completion of this project, I Will discuss about the platform which we have selected for the development.

- The developments tools have selected for this project is 'Android studio' because this is the latest development tools which provides the best facility to the developers to develop the applications.
- Mobile device is selected for the communication is the good thing or not? – if we see the ratio of mobile user that are increasing very frequently, and the most of the people are currently using the mobile device, so the information which this project is going to provide will need a device, I have selected the mobile device that will work for information retrieval as well as phone call, and it also reduce the cost of purchasing extra device per user.
- After this I will talk about the methodology which is used in this project development- I have selected Waterfall model for the development of this project, the reason to choose this method is the requirements of this projects is previously defined there were no further increment was require as for now.

What will be the future scope of this?

The future scope of this this project is, it will increase the number of cultivator in India by correlating them with the technology, there reason is it's a new things to them who are thinking that there is no technological support to the farmers , they can feel good and they can access this technology.

Is there improvements required in future?

Yes, in future I wants this to be the work like social media, so that a group of farmers can interact with each other and they can get information from there. And I also wants to add more languages in this so that the rural language can also be accessed by this system.

CHAPTER 7

CONCLUSIONS

Conclusion

In the conclusion this system comes with the advantage to the Indian farmers. As it's a technological movements, so that it will draw the attention of the people to do the farming activity without having trouble. It will help them in terms of News, in terms of market info, in terms of farming related assistance. They will get all this facility by installing this application into your mobile.

Future proposed work

In future I have decided that to provide several languages to the system so that anyone can interact with this in their regional language.

And also I thought to add the discussion forum for the experts. As well as for the farmers as well. So that it will create a link between the farmers they will be socially connected with them.

And they can share information among them which will be the most suitable part for them to be the connected with the society so they can be proceed with the group.

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APPENDIX A:

A major reason and need for this application is the alarming issue of farmers facing various problems in relation with farming and agriculture. Though there are several examples that we have already came across many a time, but the most recent one is the case of Maharashtra where according to a survey 3,228 farmers were recorded committing suicide because of lack of knowledge of what is going to happen so that they can be precautions or necessary actions for the same. With the completion of this project, farmers can be updated with all the necessary information they should be aware of and which is easy to learn, use and manage

PERSONAL INFORMATION

1.	Name	:	SIKANDAR AYADAV
2.	Sex	:	Male
3.	Marital status	:	Unmarried
4.	Telephone Number	:	+91-9788928317
5.	E-Mail	:	sikandar152gmail.com
6.	Address	:	170/MARUI, POST- JAKKHINI, DIST- VARRANASI- 221305, UTTAR PRADESH, India.