A
PROJECT REPORT ON

AN ANDROID APPLICATION FOR ONLINE AGRI MARKET

By

JAYKUMAR PATEL (CE-42) (16CEUON083)
BHAVIN MAJITHIA (CE-57) (16CEUOS100)

B.Tech CE Semester-VI
Subject: System Design Practice

Guided by:
Prof.Pandav K. Patel
Assistant Professor
Dept. of Comp. Engg.

Faculty of Technology
Department of Computer Engineering
Dharmsinh Desai University

Faculty of Technology
Department of Computer Engineering
Dharmsinh Desai University

CERTIFICATE

This is to certify that the practical / term work carried out in the subject of

System Design Practice and recorded in this journal is the

bonafide work of

JAYKUMAR PATEL (CE-42) (16CEUON083)
BHAVIN MAJITHIA (CE-57) (16CEUOS100)

Of B.Tech semester **VI** in the branch of **Computer Engineering**

during the academic year **2018-2019**.

Prof.Pandav K. Patel   Dr. C. K. Bhensdadia,
Assistant Professor,   Head,
Dept. of Computer Engg.,   Dept. of Computer Engg.,
Faculty of Technology   Faculty of Technology
Dharmsinh Desai University, Nadiad   Dharmsinh Desai University, Nadiad

Acknowledgements

We are so thankful to our mentor Prof. Pandav K. Patel who has helped us allot during this project. He is having good domain knowledge about this and moreover that he has motivated us to meet our deadlines, he was always ready to guide us whenever, we were in need.

TABLE OF CONTENTS

Chapter I

Introduction

Agriculture, with its allied sectors, is unquestionably the largest livelihood provider in India, more so in the vast rural areas. It also contributes a significant figure to the Gross Domestic Product (GDP). Sustainable agriculture, in terms of food security, rural employment, and environmentally sustainable technologies such as soil conservation, sustainable natural resource management and biodiversity protection, are essential for holistic rural development. Indian agriculture and allied activities have witnessed a green revolution, a white revolution and now it's time for digital revolution.

As we have came to know how this domain is helpful to our society, we are excited to put some efforts which will be helpful to the people which are currently engaged with this field and we have done survey and came to know there is no such communication medium between different entities of this domain so we are came up with an Idea of "Online Agri-Market" where user can easily get in touch with each other and we also try to provide simple and user-friendly interface like popular chat application "WhatsApp" because we know that end user of this application is from non technical background.

Online Agri-Market would be an android application which can be accessible from any android supported device by registered users. This app will be very helpful to people who are engaged with agriculture like farmers, traders and some food industries. With the help of this app all these people can interact with each other to fulfill their requirements. Farmers can post details about crops he is having and willing to sell, same way traders and food industries like Balaji Wafers or Lays can post their requirements on this app. This app would help both of these entities reach out other directly which would be cost-effective to both of them.

Technologies Used:

Front-End:

Back-End: Android (JAVA)

Styling:

Database: Firebase

Development Tool: Android Studio

Diagram Tool: Umlet

Software Requirements Specification

for

Android Application

Online Agri-Market

Version 1.0 approved

Prepared by Jaykumar Patel, Bhavin Majithia

Introduction

Purpose

This is the documentation for Online Agri-Market which is going be an Android application.

Intended Audience and Reading Suggestions

This document is meant for the developers, testers and designers of the application.

Product Scope

This Application will help Farmers and Traders to make deals on commodity. Both of them can contact directly to each other without any third person involved.

Overall Description

Product Functions

User registration, login to the system, upload details about commodity, find commodity, find rate of commodity, find Trader, find Farmer, Share posts on other social media platforms.

Operating Environment

The app would run on any Android device with android version of at least

Assumptions and Dependencies

The app would require the user to have a stable internet connection and to provide necessary details whenever needed.

Functional Requirements:

1. System provides Registration Functionality:
Input: User details.
Output: User registered successfully.
Description: User details are validated and added to database.

2. System provides Feature to Buy Goods:
Input: Search item.
Output: List of matched items.
Description: Item name is searched through database and all items with matching names are shown to buyer.

3. System Provides Feature to Sell Goods:
Input: Details of item to be sold.
Output: "Successfully posted" message if details are valid.
Description: Item details are checked and stored in item's database.

4. System Provides Feature To Contact Another User:
Input: User's credentials.
Output: User's contact information.
Description: User's contact information will be fetched from database.

5. System Provides Feature To Get Details Of Rate:
Input: select commodity item.
Output: provides current rate of selected commodity item in local market.
Description: System displays current rate of selected item in local commodity market.

6. System Provides Feature To Edit Details:
Input: Enter updated details.
Output: Validate updated details of user.
Description: System provides editable page to user and when user provides updated details it will validate it and reflect them to database.

Non-Functional Requirements:

1. Security
Any user who uses the system shall have a valid phone number. No one can have access to other user's data.

2. Performance
The system shall give rapid responses after checking the seller's information.

3. Maintainability
The system shall provide the capability to back-up the Data.

4. Availability
The system shall be available all the time.

5. Accessibility
The system is accessible by both sellers and buyers.

6. Reliability
The data provided by the system will be correct. The system will work 7 days a week.

7. Accuracy
The system will accurately provide real time information taking into consideration various concurrency issues.

8. Efficiency
Even if the system fails, the system will be recovered using back up data in short period of time.

9. Usability
The system is user friendly and it being online makes it easy to use. The interface would be an Android Application.
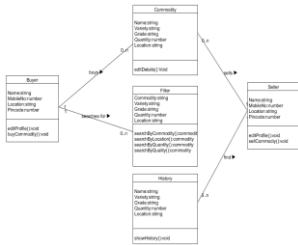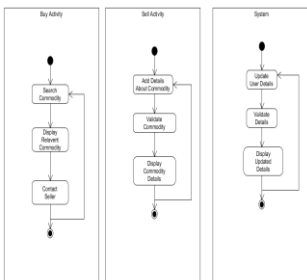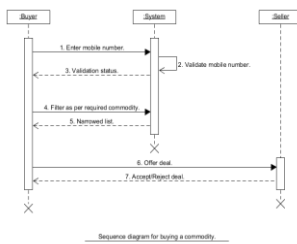
Use Case Diagram:

Use case diagram for Online Agri Market
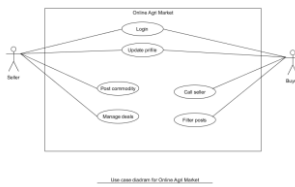
Class Diagram:

Activity Diagram:

Sequence Diagram:

Sequence diagram for buying a commodity.

:Seller		:System

1. Enter mobile number to login.

2. Validate mobile number.

3. Validation status.

4. Select option to sell commodity.

5. Provide form to fill commodity details.

6. Submit filled form.

7. Commodity posted for selling.
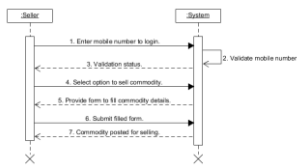
Sequence diagram for buying a commodity.

Design

Database:

We have used firebase cloud storage and which has following collections:
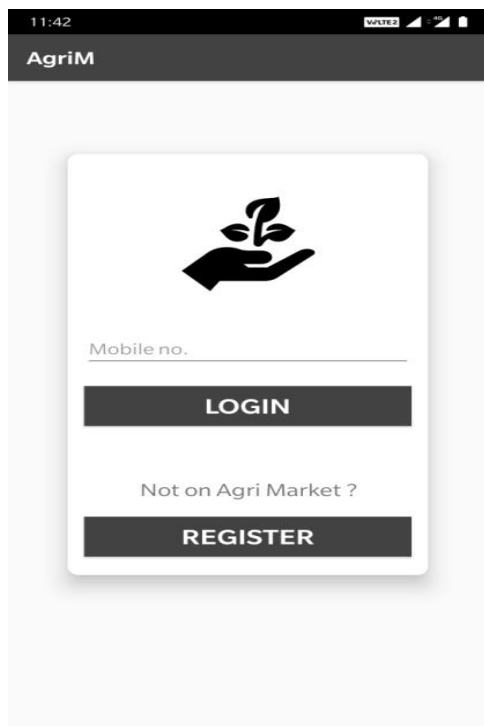
1. User

   - First Name
   - Last Name
   - Email
   - Phone No.

2. Commodity
   - Name
   - Quality
   - Quantity
   - Location
   - Image

Validation:

We have used firebase to validate the user, whenever any new user wants to register, he/she needs to provide the phone no. and OTP would be sent on that number after that he/she can be login into the system anytime.

Chapter V

Implementation
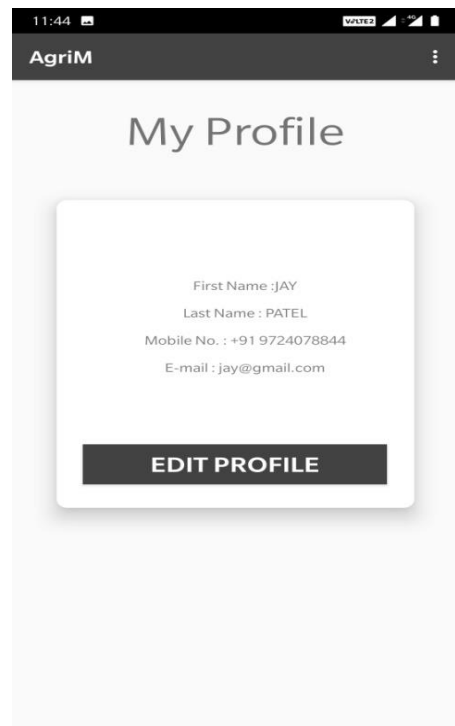
Registration

First Name : _____

Last Name : _____

Mobile No. : _____

*Email : _____

Fields with (*) are optional.

REQUEST OTP

Enter OTP : _____

SUBMIT

Edit Profile

First Name : Jay

Last Name : _____
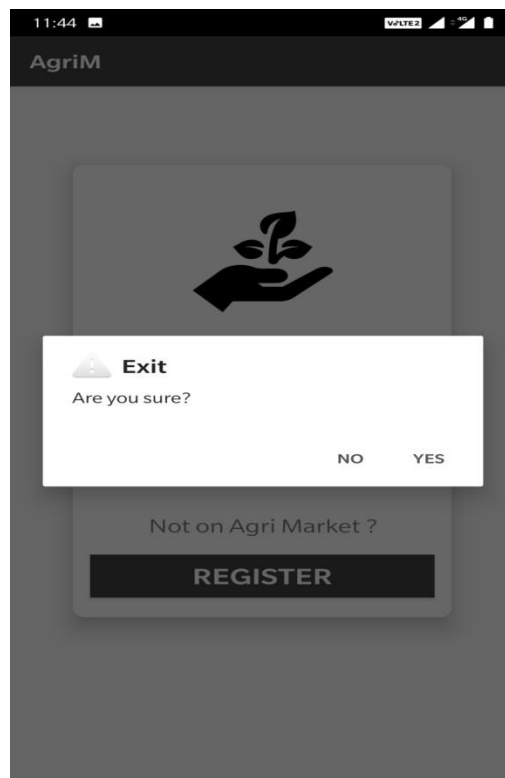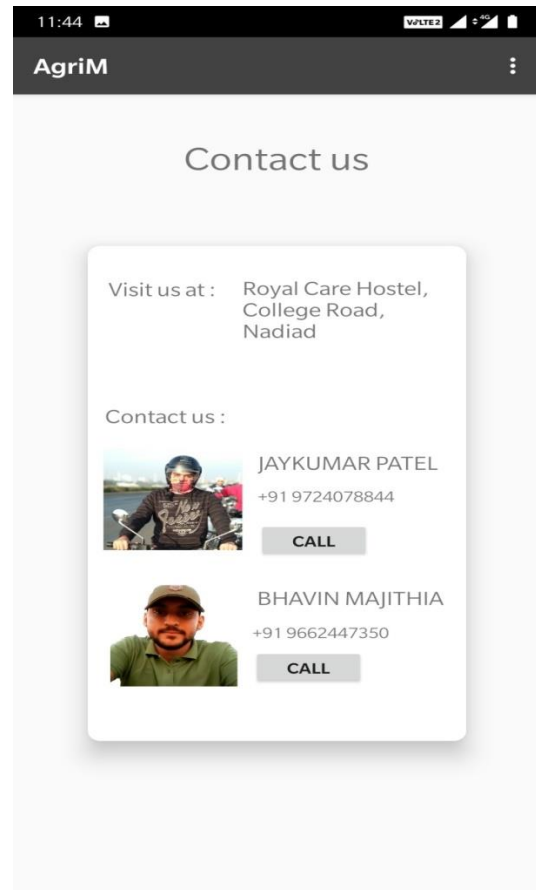
E-mail : _____

SUBMIT

SELECT IMAGE

SUBMIT

Ongoing Deals

DEAL DONE

Commodity : Banana
Variety : Variety2
Quality : Grade B
Quantity : 24 quintals
Location : Surat

Conclusion:

Thus, the application fulfill all the user requirements and will helpful to farmer whenever they want sell their crops or any other agriculture related products and this application will be also helpful to the traders or food industries whenever they are in need of some particular agricultural product.

Future Extension:

- Here we have only considered farmers and traders as an end users but we can also introduces some other users which are related to this domain like cold storage providers, dairy industries etc.

- We can also introduces the concept of premium users and provide them some additional benefits like their post will be display in some particular area of page where other users can easily view its content.

- We can also introduce some feedback kind of system like users can rate other user after dealing or get in touch with other. So user can trust on each other while making their deal.