2581-4575

International Journal For Recent Developments in Science & Technology

Crossref

A Peer Reviewed Research Journal

SMART MARKETING IN AGRICULTURE USING ANDROID

[1]GIRADA BHARGAVI DEVI, [2]CHALLA PRATHYUSHA [3]ANAGANI HARIKA [4]DR K V SAMBASIVARAO

NRI Institute of Technology, Vijayawada, Andhra Pradesh

ABSTRACT

Now-a-days it can be observed that, farmers are facing many problems. There is a lot of difference between price at farmer and marketing price. Because there are many people involving to sell their crop items in market and they are not getting profits for their crop items and also they are unable to store their crop items in a safe place in this context it is proposed to use IT as a tool to bridge the gap between farmer and buyer form open market. SMART application helps for farmers provide place to store their crop items. Many mobile applications are developed for the farmers. All the applications are developed for specific purpose. The functions are diverse ranging from crop items information, rates, sell crop items in online and news about agriculture. This is used to Farmer to get reasonable price for their crop items. By using this Farmer can directly connect to the customer. To develop this application we use Eclipse environment and we run the application by launching emulator.

Keywords— Eclipse, Emulator

1. INTRODUCTION

SMART MARKETING IN AGRICULTURE USING ANDROID is used to farmers to sell their product in market and earn remarkable profit. This application puts power into a farmers hand. This application uses tools like Android SDK, Glass Fish Server, etc. Farmers often struggle to sell their products with reasonable price. Some of them do not know basic information like, crop prices, information about crops and advices. By agriculture we can produce food and raw materials. India is one of the popular countries in agriculture. There is need to improve technology in agriculture. By using technology we can do our work easily. In Agriculture also we can use technology to get more profit. 'Green revolution' is found of pesticides and fertilizers. Agriculture sector of India has 20% of GDP (Gross Domestic Product) and 60% of total population of India farmers, which includes small scale producers, are unable to access information and technological resources that could increase the yield and lead to reasonable prices for their crops and products. It will put agriculture field to high point. The purpose of this application is to develop the mobile phone application that helps in farmers, leads to agriculture yield improvement and helps in care or maintenance of the farms. Smart farming increases the production in almost every sector. The economy of some of the countries is mostly depends on agriculture and farming. A major part of the population is directly involved with agriculture and farming business. Income source of people are limited.most important to agriculture. In India most of the people are depend on agriculture. [2] India one of the large country in the production of rice, wheat, pulses and spices. [3] India is self- explanatory country. By using technology we can improve our agriculture system. To support farmer, government launches new schemes and policies. New technique and inventions help the agriculture domain. But these techniques are not reached to the farmer. The troubles come in the dissemination of this information not reaching to the farmer. So many farmers are uneducated. Some of the farmer does not know this invention. To help farmer government lunches many schemes. This will effectively helps the famer to sell their crop items at reasonable prices. By using this application farmer can easily upload

International Journal For Recent Developments in Science & Technology
2581-4575
Crossref
A Peer Reviewed Research Journal

their information easily. They can sell their product to reasonable prices. By using different platforms we can give information about this application. Farmers can easily use this application to sell their crop items easily.

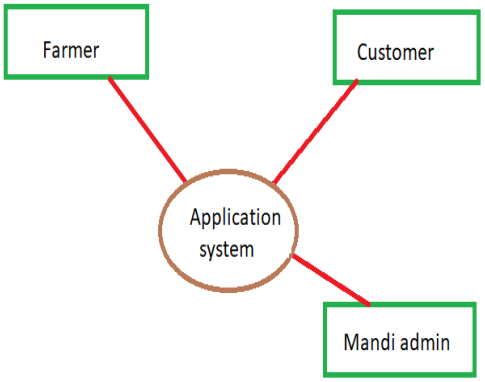


Figure 1: Data Flow Diagram

The data available in the application is not understood by some of the farmer. So many applications are introduced but there are not reaching to the farmer. Some of the applications are difficult to understand. In this case by using smart phones we can solve this problem. By using smart phones we can access the data easily. Now-a-days smart phones usage increased rapidly. Everyone access the data by using smart phone. By using internet they know everything in smart phones. People are using smart phones to perform their daily activities. Mobile usage is increased rapidly. Use of mobile application is increasing rapidly. The transmitting of information between people is done by using smart phones. Farmers are receiving information about weather by using smart phones. There are many application are developed for famers. Some of the applications are not understand by farmers. Farmers are receiving information about prices, weather. The information is available about crop items is available on different platforms. This information is available in the form of video, images, text format. The whole information is available for Farmers. By using technology farmer can know information about farming.

1. LITERATURE REVIEW

Now-a-days usage of mobiles is increasing rapidly. The price of mobiles is decreases, so usage of phones is increased. Android is operating system used for mobile phones. Some of the applications are freely available. The usage of phones is increased in every domain like business, education, etc [2]. In India most of the people depend on agriculture. The technological innovations are not reaching to farmers due to illiterates.

Farmers are fail to get reasonable prices for their crop items in market. This application is used for farmers to solve their problem. The main problem is there are not getting reasonable price for their crop item. The main purpose is farmers have get reasonable prices for their crop items. This application helps farmers to sell their product in global market and earn remarkable profit. By using this application farmer can sell their items easily and get reasonable prices for their crop items. Farmer upload their details and all information is stored in database. There is lot of security for farmers to sell their products. At any time can check their status of their crop items where their products sell or not. Transmitting the crop items from framer to customer is take care by admin. By using smart phone we can easily handle the information by using internet. This the application where various kind of crops items are sell to customer at reasonable prices.

Kisan Suvidha mobile app implemented by government of India. This is developed for farmer and gives information of weather and market prices which is useful to farmers. This will give information about weather, market price. It has more features like weather of current day and next five days.

Varieties of technologies are introducing. In which some of them are developed successfully. Few of them are in validation state and other are ready to release in the market. This is developed by eclipse

International Journal For Recent Developments in Science & Technology
2581-4575
Crossref
A Peer Reviewed Research Journal

and net beans. For this application we use glass fish server. To store data we using database named as agrodb.

The android application for Shetkari has simple interface.

Which need internet to use the application. By using internet they can register and login. They can download by using internet. Once download completed they can use the data without internet.

Farm-O-Pedia is developed by C-DAC Mumbai. This application helps for farmers and it is available only in Gujarati and English languages. The main function of this application to give information about which crop is suitable for soils and what type of crop items are planted for present seasons. We can check weather in our area. By using this we can also mange cattle.

Computers, machine learning, smart phones are technologies are used in all activities. Most of the people are doing their activities by using phones. India is agriculture based country. Most of the people depend on agriculture.

Krishi Market Online is a website which is used for Farmer to sell their crop items directly to the customer

2. PROPOSED METHODOLOGY

After gathering the analysis of current farmers information regarding modern farming methods and the development of modern methods this type of application will be more helpful them to get all type of information only in single touch at any time.

This application used for farmers to sell their crop items for reasonable prices. In which Farmer directly connect to customer.

Agile model is an approach for developing the software and completely depends on iterative development. Generally agile method will be broken tasks into smaller iterations or parts. The project scope and requirements are taken in the beginning of software development process. Plans regarding the number of iterations so that duration and the scope are defined clearly in each iteration. Each iteration is considered as a short time frame in the Agile process model. The division of the entire project into modules and minimizes the project risk and delivery time requirements.

Figure 2: Agile Model

Phases of Agile Model:

The below points are the phases in the Agile model for software development are:

1. Gathering Requirements
2. Designing
3. Construction
4. Testing
5. Deployment
6. Feedback

2.1 Requirements gathering: In the first phase the requirements must be clearly defined. It should be clear about business opportunities and plan the time and effort needed to build the project. Basing on the information technical and economic feasibility can be evaluated.

2.2 Designing: Once the project work with stakeholders are identified to define requirements, the user flow diagram or the high-level UML diagram can be used to work with new features and in my view it can be shown and applied to the existing system.

2.3Construction: Once the requirements are defined by team the work begins. After analysis the requirement, they are design the product. The product will be undergoing various stages of

International Journal For Recent Developments in Science & Technology
2581-4575
Crossref
A Peer Reviewed Research Journal

improvement so that it includes simple and minimal functionality.

2.4 Testing: In testing phase the quality assurance team will check the product performance and fix the errors.

2.5 Deployment: The deployment phase consists of the team who gives a product for the users work environment.

2.6 Feedback: The sixth phase in agile process is feedback. In feedback the team will take feedback about the product and works according to the feedback.

METHODOLOGY

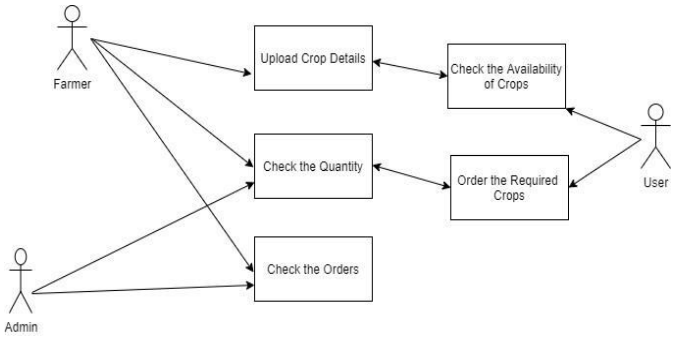


Figure 3: Process flow Diagram

3. DEGISN OF VARIOUS MODULES

Farmer:

First farmer registered and then login through email id, password. After login farmer enter their crop details like crop name, quantity, rate, description about crop (which include quality and type of crop like hybrid). Farmer can upload more than one crop items. Farmer can update already existing details. Farmer can check status of the crop items whether their items are purchased or not or how much purchased

Customer:

First customer registered and then login through email id, password. After login they request crop item and they mention their requirement about the crop item. After receiving the crop item they give rating for crop items. If the crop items are not good customer can return their goods

E-Mandi:

Admin check the details of farmers and customers. Based on customer requirements admin send crop items to them and give updates to the farmer.

From above diagram Farmer enter the crop details like crop name, quantity, price, type of a crop, description about a crop and Farmer can update their crop items or Farmer can enter more than one crop item. Customer choose the crop items and place order and if the crop items are not good they can return. After they can give

rating for their crop items. Admin will see all transaction between Farmer and Customer

4. DEMONSTRATION OF THE MODEL:

First Farmer register and login, after login Farmer enter crop details on their profile. Customer searches the particular crop items. Based on that related crop items are display. Customer chooses the crop items and places the order. The order quantity must be in available quantity mention by farmer. The price will automatically calculate based on quantity required by the customer.

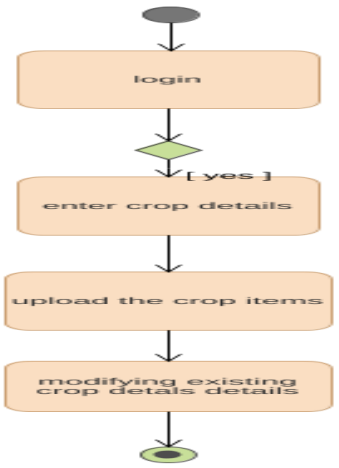


Figure 4 :Farmer

International Journal For Recent Developments in Science & Technology
2581-4575
Crossref
A Peer Reviewed Research Journal

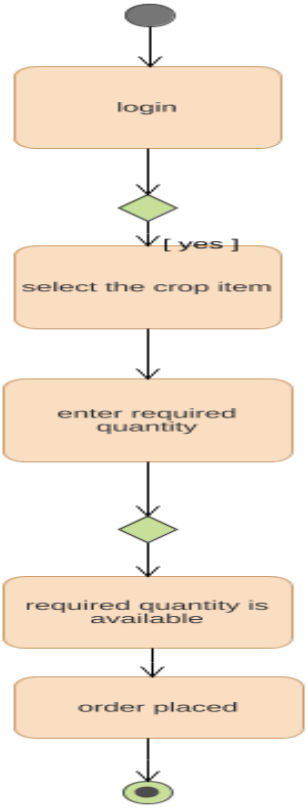


Figure 5: Customer

5. Agile Testing Methods:

- Scrum
- Crystal
- Dynamic Software Development Method
- Feature Driven Development
- Lean Software Development
- Extreme Programming

Scrum:

Scrum is an agile development process focused completely on how to manage tasks in team-based development conditions.

Scrum has three roles and responsibilities are:

Scrum Master: The scrum can organize the master team, arrange the meeting and remove obstacles for the process.

Product Owner: The product owner makes the product backlog, prioritizes the delay and is responsible for the distribution of functionality on each repetition.

Scrum Team: Scrum team manages and organizes the work to complete the cycle.

Extreme Programming: These types of methods are used for customers, when they are constantly changing the demands or requirements or if there are not sure about system performance.

Crystal: They are three methods for Crystal:

Chartering: Different activities are involved in this method are development team, performing feasibility analysis, developing plans, etc.

Cyclic delivery: Cyclic delivery consists of two cycles are Team updates the release and plan Integrated product delivers to the users.

Wrap up: stabled with the user environment, this phase performs deployment, post-deployment.

Dynamic Software Development Method: DSDM is a rapid application development strategy for software development. It provides distribution structure. DSDM has features are users are actively connected and give right to make decision to team

The techniques used in DSDM are:

1. Time Boxing
2. MoSCoW Rules
3. Prototyping

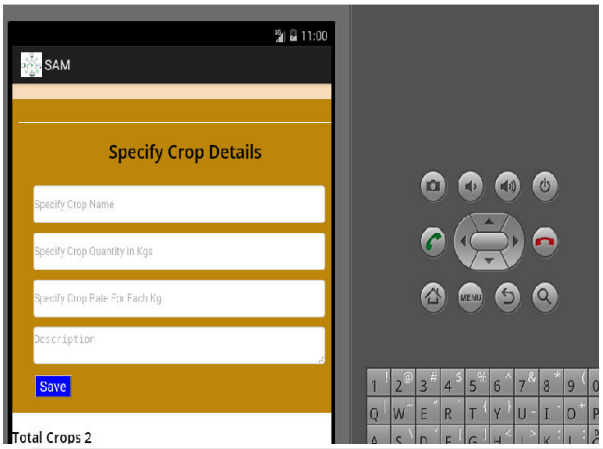
DSDM has seven steps:

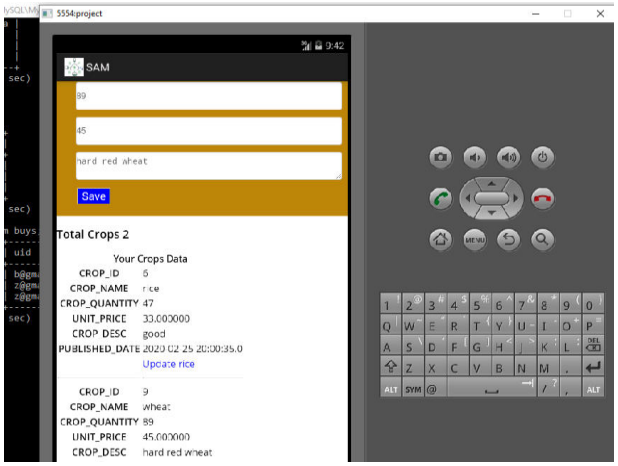
1. Pre-project
2. Feasibility Study
3. Business Study
4. Functional Model Iteration
5. Design and build Iteration
6. Implementation
7. Post-project

6. Output:

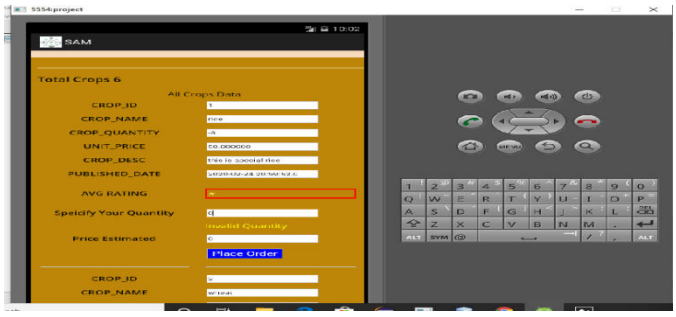
First farmer registered through mail and then login. After login Farmer can see below application. In that we have crop name, quantity, price, description about crop. Farmer fill all the fields and save it. Farmer can change existing details and also upload more than one crop item.

International Journal For Recent Developments in Science & Technology
2581-4575
Crossref
A Peer Reviewed Research Journal

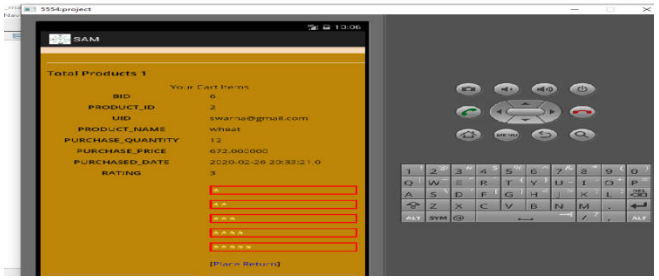




First customer register and login through mail id and password. After login customer can below page. Customer enter the quantity they want.



Customer can place order based on their requirement and admin will take care about transport. All the details are stored in database. Every update is done by using Internet.



7. CONCLUSION

Smart phone plays a major role of transmitting data to farmers. These applications are introduced by the sack of farmers. All these applications are developed to get profit to the farmer. In this application Farmer enters their crop details and they can check their status of crop items whether their crop items purchased or not. Some of the applications are difficult to understand. Few of them farmer are uneducated. The main problem is language. So many applications are developed in English.

Many mobile applications are being developed for farmers, but there are not reaching to all farmer. This is used to Farmer to get reasonable price for their crop items. By using this Farmer can directly connect to the customer. Many applications are developed for farmers but there are not reached to farmers. This application is easily handled by Farmer. Farmer can easily sell their product for reasonable prices.

8. REFERENCES

[1] India's farmers turn to mobile apps. Enterprise Innovation | Asia's Premier Business and Technology. Publication https://www.enterpriseinnovation.net/article/indiasfarmers-turn-mobile-apps-1956219016. (Accessed: 2nd January 2018)

[2] Pti. 'Agriculture dependent population in India grew by 50% during 1980-2011". The Hindu Business Line(2014).Available at: http://www.thehindubusinessline.com/economy/agriculture-dependent-population-in-india-grew-by-50-during19802011/article5732072.ece.(Accessed: 3rd January 2018).

[3] Ministry of External Affairs (2015) India in Business. Investment and Technology Promotion Division, Govt. of India

[4] What is Android? Here is a complete guide for

2581-4575
International Journal For Recent Developments in Science & Technology
Crossref
A Peer Reviewed Research Journal


beginner.AndroidPIT:https://www.androidpit.com/what-is-android.(Accessed: 13th January 2018)K. C. Yowand, R.

[5] Mittal, S., Gandhi, S., & Tripathi, G. (2010) ―Socioeconomic impact of mobile phones on Indian agriculture‖, New Delhi: Indian Council for Research on International Economic Relations, (p. 53).

[6] UHSB HORTI FARMER - Android Apps on Google Play. Google Available at: https://play.google.com/store/apps/details?id=com.exarcplus.sys.horti&hl=en. (Accessed: 7th January 2018)

[7] Emausamhau Krishi Mausam Seva - - Android Apps on Google Play. Google Available at: https://play.google.com/store/apps/details?id=com.emosumhisar.hau&hl=en. (Accessed: 7th January 2018)