International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395 -0056
Volume: 04 Issue: 03 | Mar -2017 www.irjet.net p-ISSN: 2395-0072

E-trading of Agricultural Products from Farm to Customer Application

Rituraj Chauhan[1] , Shreevyankatesh Jagtap[2], Shubham Ahire[3] , Akshay Bhoyate[4] , Prof. Dr. K.C. Nalavade[5]

[1]Computer Engineering, Sandip Institute of Engineering & Managemen
t[2]Computer Engineering, Sandip Institute of Engineering & Management
[3]Computer Engineering, Sandip Institute of Engineering & Management
[4]Computer Engineering, Sandip Institute of Engineering & Management
[5]Assistantprofessor, Computer Engineering, Sandip Institute of Engineering & Management

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Abstract - *In our day to day life we consume food and our survival is based on mainly food. A considerable amount of our food is coming from farms and other means too. These farmers do their hard work for growing and serving many lives across the country, which pays for their source of income. But due to intermediates in the selling of their final products the farmers are unable to make their profit and mostly live poor. By this project we will be able to connect farmers directly to the customer so that direct dealing of products can be accomplished. This will result in a significant decrease in the prices of the products currently available in the market as well as the profit will directly reach the farmers pocket.*

We are surrounded by technology but there are many people who are still unaware of the benefits of this technology or its use, by the help of this project and the support for the awareness of the projects many farmers will be able to use as well as will be taught how to use this application with its benefits.

Key Words: GPS(Global Positioning System),OTP(One Time Password)

1. 1. INTRODUCTION

As we step forward into the modern era of technology, we may find many engineering related applications very beneficial for improvements into the society. This is the world of technology where people use smart phones for completing their daily tasks like shopping, paying bills, managing work and much more. The idea of this project is to add its features into the lives of the people so that the food which they buy can be bought directly from the farm so that the profit can reach directly to the farmers. Because in India we follow a supply chain of farm product making things too much indirect for the farmers due to which the farmer still reaming poor and the intermediates are gaining profit which ultimately makes them rich. So in order to break that supply chain of indirect sales, we can make use of this application so that the farmer can be connected directly to the customer and the selling can be done accordingly. Since the farmer will be dealing with the customer directly so the prices of the products offered by the farmer to the customer will also be affordable to customer, which will help both the farmer and the customer where the customer can save some money and the farmer will gain extra profit that he deserved.

1.1 Objectives of the project:

The main goal of this project is to provide a bridge of communication between the farmers and customers across the country so that they can get together and do business that is beneficial for both ends. Basically it will be a challenge for most of the farmers since they lack the knowledge about the new technology and trends of this fast developing world. The success of this project will provide its fruitful benefits for both the customer and the farmers, providing knowledge and covering different aspects of the resources that they are unaware of till date. The objectives of this project are:

- Connecting Farmer to the Customer via application.
- Chatting option for Farmer and Customer.
- Providing knowledge to the farmers by the means of government schemes available to them.
- GPS location stored into system database for location of the farmer.
- Multiple language option for ease of understanding.
- Review and comment option.
- Notifications to the farmer and customer from server side.

1.2 Conventional Systems for online sales:

There are several online web portals as well as android based applications which are based on a similar idea. But most of them end up adding sellers as one of the intermediates which again starts the indirect selling chain of supply of the products.
For example if we consider

1) **Big basket (Online Shopping web portal)**: In this website the products available are of different verity and may also differ in quality but most of them are from the wholesalers or retailers etc. Adding them into the selling process again decreases the profit margin window for the farmers due to which the intermediates gain high profit.
2) **MyRML(Online Mobile Application):** In this application the products are from different areas , locations and states but most of the products were either having some specific brands or belonged to some of the wholesalers and retailers. Due to which things again goes towards the favour of the intermediate even though the food may be of good quality.

Many of the users of the application faced the language problem in the beginning plus the basic nature of the applications and web portals made things too much easy on the same time lacked in many different features which were not covered by these online approaches due to which people are unable to make the full utilisation of these online means of products.

2. PROJECT METHODOLOGY

2.1 System Architecture:

The basic system architecture of the project includes the seller side that is Farmer and customer side which is other user's option available in the system, they contain all the features available in the system for both the end users.

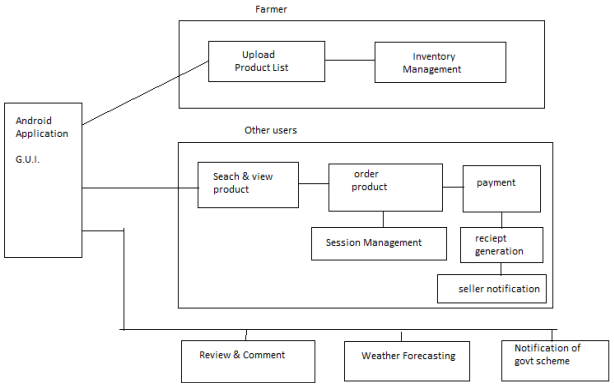

Fig. 1: System Architecture Diagram

In any online portal there is an admin to handle all the backend of the system for managing and proper response of the user's request. Similarly in this system we have the admin working on the back end and the seller's side and customer side on the front end.

2.2 Farmer End G.U.I:

Here the seller will be uploading his products after getting registered to the portal through a registration process which will also take the farmers location coordinates (GPS) latitudinal and longitudinal co-ordinates.

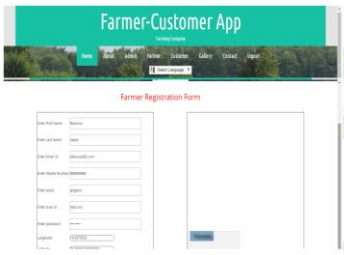

Fig. 2: Farmer Registration page

Fig. 3: Farmer Login

After logging in the portal the farmer will upload his products into the database which will go into his inventory like any e-marketing site, were the seller will have the freedom to add update and delete any product from his inventory.

Fig. 4: Weather Forecast

Fig. 5: Farmer Product Review

There are some other features of this application by the help of which a farmer can take the advantage of the environmental conditions by the weather forecast option to browse the weather conditions in his area based on the GPS location which he feed to the system at the time of registration.

Fig. 6: Product Update

Fig. 7: Govt. Schemes & notification

Within the system the farmer can also update his existing stock of products and add more to his inventory and by the flash notification option the farmer will be able to see the government schemes in the notification bar and different messages from the admin or the system side.

2.3 Customer End G.U.I:

At the customer end we have the basic customer registration and customer login for the customer to purchase any product from the portal. On the same time there is another feature of the portal through which any non-registered customer can browse in the portal for any product.

This will seem same as that which we see on most of the online websites or portals with both online and mobile application scheme available for the customer but the only

difference here will be that in here the seller will always be a farmer and customer can be anyone a hotel , small food stall or common man etc.

Fig. 8: Customer Login Fig. 9: Guest login

But in the guest login feature the customers are not allowed to buy or view the complete details of any single product. In order to do so one have to register first then he will be provided with the access to the complete portal until the users rights are concerned according to the admin or system.

Fig. 10: Products List Fig. 11: Product Details

The customer after logging in to the system will see the above image as shown in the figure 12 from which he or she can select any product of their choice and can see the details about the product that includes the details of the seller as well as the available quantity.

Fig. 12: Farmer Chat Fig. 13: Customer Chat

Before buying or while browsing the products the customer can have a chat with the farmer of the specified product which he intend to buy which allows him or her to have all there queries clear from the farmer.

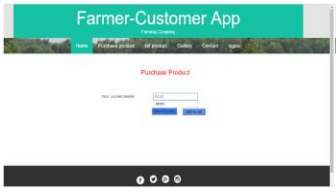

Fig. 14: Product Purchase Fig. 15: Receipt

After getting done with the queries from the customers and farmer side clear the customer can go to the purchase option where the system will ask for bank details and will also provide the OTP to the customer which will help in generating the receipt or he can skip paying and can also add the product to his cart.

3. CONCLUSIONS

The paper speaks about the project in which we took the idea that will make every farmer reach the homes in there nearby locality or cities by the medium of this web portal and application. In this we have used some simple database and used a reference algorithm for displaying the images on the left side termed as related product in the purchase product.

We have implemented the chat option, guest login, multiple language as additional features to the system making system more user friendly. By the help of this portal people will be able to get fresh food to eat and will be able to explore parts of their nearby villages for picking up their purchases and exploring the place establishing relation with farmers and gaining profit by saving their money , adding profit directly to the farmer helping farmers too.

ACKNOWLEDGEMENT

We have done this project under the guidance of our guide Prof. Dr. K. C. Nalavade who have provided us with different and innovative ideas for improving our system without her help we won't be able to have this project done within the allotted time or in the way it is completed.

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BIOGRAPHIES

"Rituraj Singh Chauhan pursuing Engineering from Sandip Institute of Engineering & management , Nashik"

" Shreevyankatesh Jagtap pursuing Engineering from Sandip Institute of Engineering & Management , Nashik"

"Shubham Ahire pursuing Engineering from Sandip Institute of Engineering & Management , Nashik"

"Akshay Bhoyate pursuing Engineering from Sandip Institute of Engineering & Management , Nashik"

"Prof. Dr. K .C . Nalavade faculty at SIEM, Sandip Foundation, Nashik"