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Agricultural Commodities Marketing Network

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ABSTRACT

The increased use of internet and its easy accessibility has had a major impact on every sector of e-commerce. The traditional method open to the farmers in India is to sell away their surplus produce to the village traders. These village traders sell the farm produce to the retailers who in turn sell the same farm produce at higher prices in the retail market. Farmers have to go for distress sale of their farm produce to the traders at very low prices. The middlemen claim a good amount of margin thereby reducing the return of the cultivators. The website which we designed will act as a unique and a secure way to perform agro-marketing.

1. Introduction

The great concern of traditional agricultural marketing is that most of the time customers have to travel long distances to get agricultural products and getting the right quality is not ensured. A lot of efforts are wasted both in terms of time and money. More and more business houses are implementing websites providing functionality for performing commercial transactions over the web. It is reasonable to say that the process of shopping on the web is a becoming a common place. It is the buying and selling of goods and services or the transmitting of funds or data over any electronic network, primarily the internet. The vision of this project is to ensure a fair price to the farming community by devising new techniques and by making use of online markets. An application, that servers as a platform for movement of agricultural products from the farms directly to the consumers and ensuring maximum profit to farmers as against the low prices given to them by retailers or middlemen. This web application provides privilege for both farmers and consumers to buy and sell the required farm products without the involvement of a middleman and its right profitable price. Hence, it provides freedom of pricing and a freedom of access

2. Literature Review

Agriculture in India has directly or indirectly continued to be the source of livelihood to majority of the population. Indian agriculture has seen a lot of changes in its structure. Indian agriculture can be balanced and made efficient through proper and better management practices. The present study brings out past and present scenario of agricultural marketing prevailing in India, its challenges and future recommendations [1]. Evidence has shown that smallholders do participate and make a sizeable contribution to the production of high-value food commodities, but their links to markets are not strong [2]-[3]. The success of the green revolution, however, lowered real prices of cereals and induced the need to divert land and labor resources to non-cereal activities in order to prevent further declines in prices and income in rural areas [4]-[7]. But in spite of all the revolutionary schemes and development strategies in India implemented by the government it is observed that the actual farmers are not being benefited fairly from the trade and a majority of the profit is not gained by the farmers.

Table-1 Literature Survey

Sr. No.	Year of Publication & Authors	Methodology Used	Limitation /Drawback
1.	Justin Yifu Lin,1992.	Employs province level data to assess the contributions of de collectivization price adjustments and other reform China's agricultural growth in the reform period	The effect of other market-related re forms on productivity and output growth was very small
2.	P. S. Brithal , A. K. Jha, H. Singh, 2007.	Linking small holders to market	Difficulty in tracing down the small holders
3.	Shakeel-Ul-Rehman, M. Selvaraj and M. Syed Ibrahim,2012	Indian agriculture can be balanced and made efficient through proper and better management practices	Past and present scenario of agricultural marketing prevailing in India makes it challenging
4.	Saurabha A Ghogare, Priyanka M Monga,2015.	Sending SMS via SMS gateway for daily alert.	Only information about the weather conditions is given, no information about the potential buyers.

3. Existing System

The traditional method open to the farmers in India is to sell away their surplus produce to the moneylenders or to village traders. These village traders sell the farm produce to the retailers who in turn sell these goods to the consumers directly in the retail market. The limitation of such trade is that the farmers have to go for distress sale of their farm produce to the traders at a very poor price. The middlemen claims a good amount of margin and thus reduce the returns of the cultivators.

4. Proposed System

The main objective of this project is to help farmers ensure greater profitability through direct farmer to farmer, farmer to customer & farmer to dealer communication. Our project deals with respect to the farmer's benefit of getting their products sale at a best price online. Here, the main users of this website are farmer, customer, dealer and admin. Farmers will get unique interface where they can perform marketing, get the correct rates of the market, get in touch with SMS or Email and gather knowledge of different schemes and get pay online. It will provide market wise, commodity wise report to the farmer in interactive way.

5. Methodology

5.1 Architecture Diagram

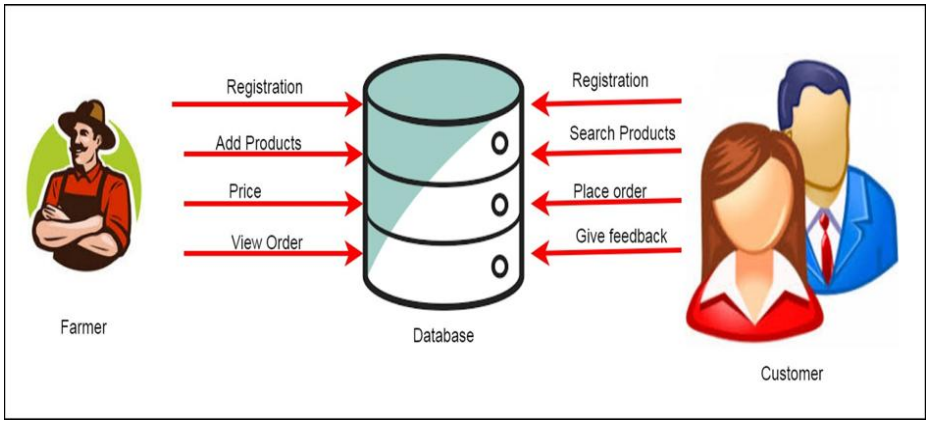

Figure1. Architecture diagram

The above diagram is the architecture diagram which is the graphical representation showing the components of our system which are a part of the architecture and clearly define the principles, elements and components. The three main entities of our system are the farmer, customer, and database. The admin will monitor the different activites taking place on the website on a regular basis.The trade will be carried out between the farmer and customer. The farmer and customer will both login into the website and will be authenticated via an OTP to carry out the further actions. On successful login, the farmer can add products for selling and the customer can view them for purchase.

5.2 Flow Diagram

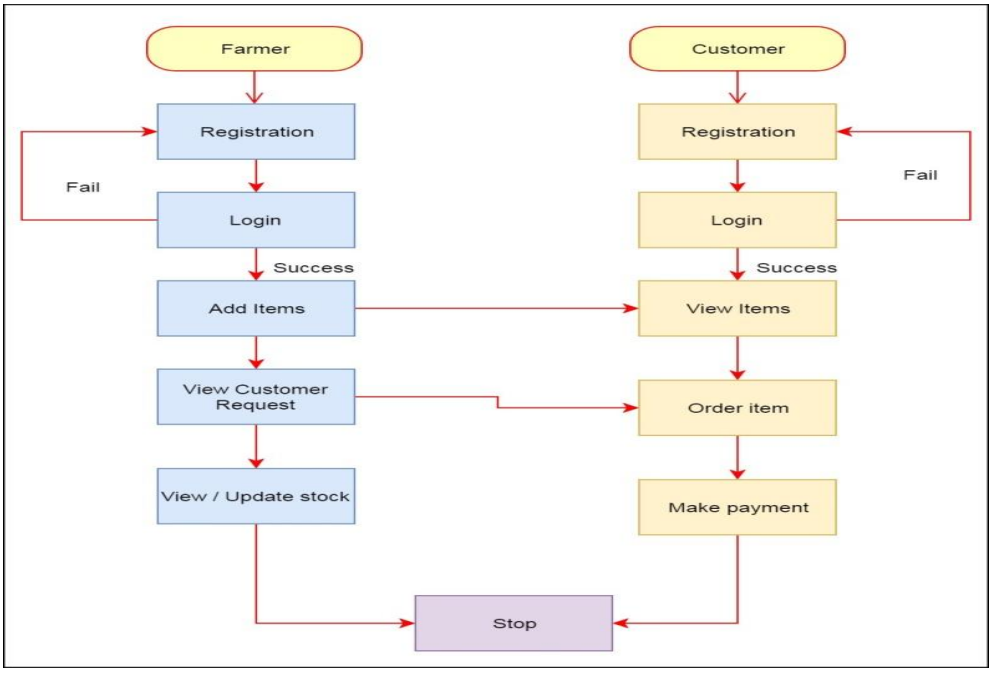

Figure 2. Flow Diagram

Farmer:

1. The Farmer will first register on the website specifying fields such as username, password, location, mobile number.
2. The next step will be authentication which is via OTP. The farmer will receive the OTP on the registered mobile number which he has to verify.
3. After verification the registration will be successful.
4. When using the website next time the farmer has to login using registered username and password.
5. If the username and password is correct the login will be successful.
6. If login fails the farmer has to register again.
7. After successful login the farmer can add new products to his account for display and purchase.
8. The registered consumers who have viewed these products and desire to purchase it will post a request to the farmer for acceptance or denial.
9. Depending upon the request the farmer will check the availability of products and act accordingly.
10. If the farmer accepts the request he will process the order and notify the consumer that his request has been accepted.
11. After receiving order confirmation from consumer, the farmer will further process the order for delivery.
12. After delivering the product the farmer will view and update his stock.

Consumer:

1. The Consumer will first register on the website specifying fields such as username, password, location, mobile number.
2. The next step will be authentication which is via OTP. The consumer will receive the OTP on the registered mobile number which he has to verify.
3. After verification the registration will be successful.
4. When using the website next time the consumer has to login using registered username and password.
5. If the username and password is correct the login will be successful.
6. If login fails the consumer has to register again.
7. After successful login, the consumer can view various products uploaded by the farmer.
8. The consumer has the feature of viewing and sorting the products according to the filters such as location, pricing, product type, etc.
9. When the consumer comes across the desired product, he can place a request for the same specifying the quantity and expected delivery time.
10. If the farmer accepts the consumer's request the consumer can proceed with the order.
11. While ordering the consumer can payment either by cash on delivery (COD) or by using net banking or credit/debit card.

6. Software Requirement

Operating system : Windows XP/07/08/10.
Programming Language : JAVA/J2EE
IDE : Eclipse Kepler
Database : MYSQL, XAMPP
GUI : HTML, CSS

7. Advantages

I. The middlemen and commission agents will not be involved.
II. The farmers will be able to sell the produce at self determined prices.
III. The consumer will also get the commodities at low price.
IV. The farmers will be able to diversify into high value crops and off season vegetables due to assured buying.
V. The customer will have the advantage of getting fresh and good quality commodities from the farmer itself without paying extra prices.

8. Results and Discussions

The proposed website for farmer services will look as follows:

Home Page:

Figure 4. Home Page

Farmer Registration Page:

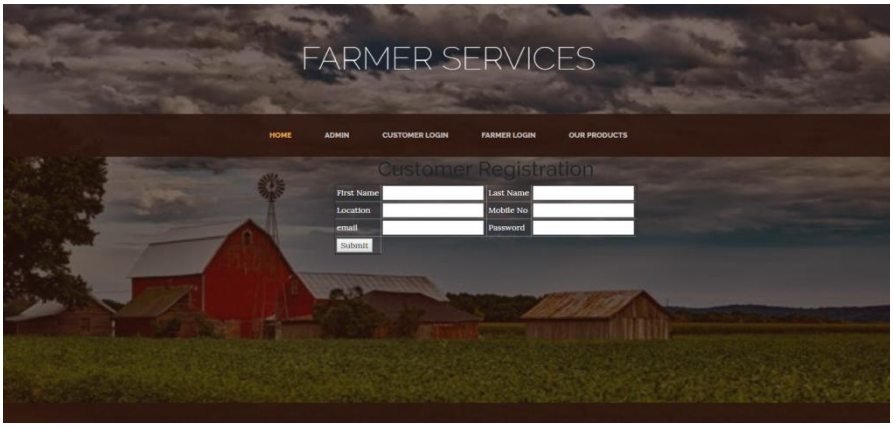

Figure 5. Farmer Registration Page

Farmer View Products Page:

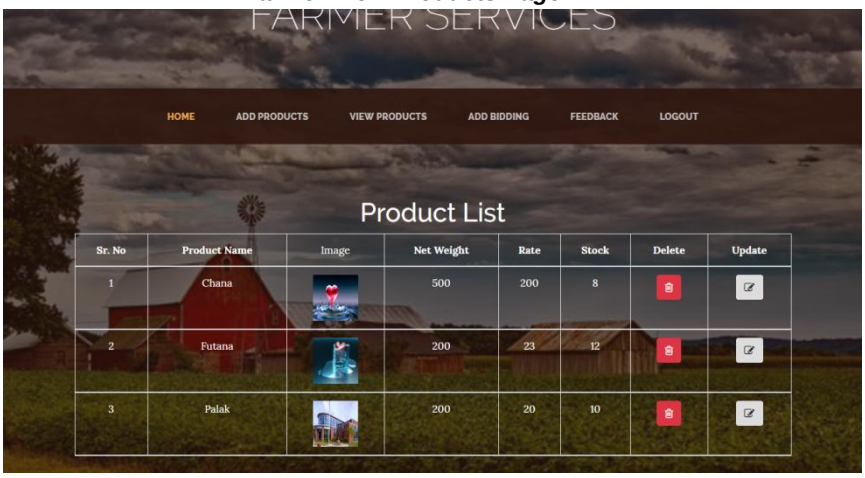

Figure 6. Farmer View Products Page

9. Conclusion

The "E-Farming: An E-Commerce Site for Agricultural Product" is successfully designed and developed to fulfil the necessary requirements, as identified in the requirements analysis phase, such as the system is very much user friendly, form level validation and field level validation are performing very good. The old manual system was suffering from a series of drawbacks. The present project has been developed to meet the aspirations indicated in the modern age. It is very helpful for computerization or doing automation of a personal information management system. This program helps reduce the manual method and stress which is done by a person and that is time consuming and lengthy process. With this application user's information are stored very efficiently in a secured database.

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