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SMART FARMERS MANAGEMENT SYSTEM USING ASP AND SQL DATABASE

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ABSTRACT

In today's agriculture and the food supply chain in general, there appears a history of quick adoption and assimilation of new technologies, especially cost reduction technologies. In the development process of electronic commerce of agricultural products, many new innovative technologies have been emerged. It connects the gap between the availability of agricultural input and delivery of agricultural outputs and agriculture infrastructure. E-commerce involves use of the Internet to market, buy and sell goods and services, exchange information, and create and maintain web-based relationships between contributor entities. Our project aims to help farmers as well as customers for buying and selling agricultural products across the country using a computerized approach. The application builds a platform for farmers to ensure greater profitability through end user communication. In developed markets, is the online bulk orders of fresh quality of the product is already a common practice among the facilities such as hotels and restaurants. The consumer market for on-line orders, it will also start to come into play, as it grows. The proposed work allows viewing various products available, and enable user stop purchase desire products instantly by online payment. The study utilized micro-survey data from 686 households in the leading kiwi fruit-producing area as the empirical setup. The findings illustrated that the village environment is the main factor that restricts farmers' e-commerce sales behavior, among which the infrastructure and policy environments have a significant contribution to farmers' e-commerce sales intention and behavior. However, the effect of capital endowment on farmers' e-commerce selling behavior has been found as significant. The village environment significantly affects both large- and small-scale farmers, and the capital endowment has a higher binding effect on small-scale farmers. Therefore, the paper suggests that improving the village environment for e-commerce development and laying the foundation for e-commerce development should be fostered. A differentiated incentive mechanism to improve the capital endowment of farmers should be constructed. A well-structured capital endowment triggering small farmers to capture the benefits of e-commerce sales should be imposed.

Keywords: Smart Farmer, Agriculture, ASP, SQL, E-Commerce.

INTRODUCTION

Farming is the prime occupation in India. In spite of this, today the people involved in farming belong to the lower class and are in deep poverty. The Advanced techniques and the Automated machines which are leading the world to new heights, is been lagging when it is concerned to farming, either the lack of awareness of the advanced facilities or the unavailability leads to the poverty in farming. Even after all the hard work and the production done by the farmers, into day's market the farmers are cheated by the Agents, leading to the poverty. Agro marketing would make all the things automatic, which would make it easier to serve as the best solution to all the problems. Farmer's e-Market will serve as a way for farmers to sell their products across the country just with some basic knowledge about how to use the website. The site will guide the farmers in all aspects. Getting access to the required information related to the markets and different products can be made possible through the SMS facility. Farmer's e- Market is a web application that will help farmers to perform Agro-marketing leading to achieve success and increase in their standard of living.

An authorized-agent would serve as a way for farmers to sell products in the market. The centralized market committee will have control of the agents through business activities review. In rural areas, the SMS facility would give the required market information where the internet cannot be available. The government will look forward to developing new schemes for farmers' welfare-Agricultural marketing still continues to be in poor shape in rural India. In the absence of sound marketing facilities, farmers have to depend on local traders and middle men for the disposal of their farm produce, which is sold at throw-away prices. In the current competitive scenario, every business establishment needs quality processes to increase their efficiency as well as improve their productivity. It is of vital importance that manual, time consuming & monotonous operations are automated so as to streamline the working of an organization. Since, the existing system takes more time and manpower for processing. It is keeping in mind this business philosophy that we propose a Farmer's e-Market. Considering the above scenario faced by farmers, we have designed this web portal so that farmers will be able to market their product without the involvement of intermediaries or any third party. Our system will deal with all aspects of farmer's products.

The Farmer's E-Market is created to help bring together all local vendors. We want to help make each stronger individually as a collective whole by providing simple lines of communication, logistics and support within the relationship of producers to buyers and producers to producers; & essentially creating an online farmers market for that offers consistent connection between all producers and buyers. The main motive of the project is to sell local and buy local. The main objective of developing

Farmer's E-Market are given below:

- The central concept of the application is to allow the buyer to shop virtually using internet and allow customers to buy products of their own choice.
- improve the services of buyers and producers by eliminating the intermediaries between them.
- Maintaining details of customer payments, product receipts and updating of the same.
- The information pertaining to the products is stored on RDBMS at the server side. The server processes the customers and the items are shipped accordingly

- Capable of storing all day today transactions
- Since all the data is stored in the database, analysis of the data can be done.

3. EXISTINGSYSTEM

1. Any internet user can use this existing website to search for any kind of products, select particular product from wide range of products.
2. Once they make up their mind to purchase any particular thing, they can place an order and make payment through net banking.
3. The existing Farmer's e-Market website is static, which makes it less interactive. It has database connectivity. The home page, farmer interface, admin interface and the user interface have been prepared.
4. The system information updates according to the changes in technology and store products.
5. Master maintenance is done by admin who is responsible for every update required in the system.
6. In this system, the producer can update, sell and check details about their products accordingly. They can put information about their products on the website.
7. Buyer can avail benefits of the user-friendly web based system in choosing products available and buying them. Moreover, the buyer can contact admin in case of faulty products.
8. Alerts and real time reporting through E-mail (to both buyer and producer). Buyers as well as producers can contact admin for any information required.
9. Management of the wish list is done where all items that are to be purchased can be reviewed after the item is brought from the wish list.

3. PROPOSEDSYSTEM

Farmer's E-market is an online shopping website where buyers can buy farm produce directly from farmers. Various types of farmer's products are available for purchase at a reasonable price. The Farmer's E-market mainly focuses on user friendly interfaces and promotes users to purchase the product faster. It has a registration facility and any information entered into the registration table is very secure and no one can access the information. Security is given utmost importance while designing the website. If any user is not valid or involved in any kind of illegal work, the website is blocked by the admin. Even the user is not activated unless admin approves. For any query buyer and producer both can contact admin through mail. They can use this facility at any time.

The entire system comprises of three users as mentioned below:

1. Admin:
2. Buyers:
 - Local vendors(retailers)
 - Hotel owners
 - Schools/college canteens
 - Caterers
 - Restaurants

3. Producer:
 - Farmer

One of the most important parts, providing 'TRANSPORTATION FACILITIES' for delivery of finished products, is under process. We could not think of any alternative which is best suited for every individual user (from products to buyers). But we have managed to think of a simple alternative in which the buyer can ask for transportation facility the admin or can avail the transportation all by himself. Since the information is stored by admin of all the transportation companies, the admin can keep track of the delivery of product to the buyer. We have also implemented searching for transportation companies by city of Producers so that delivery of products will become much easier.

Implementation of the payment gateway could not be achieved. Instead we designed the project in such a way so that transaction can be managed virtually where money is directly paid to the producer after the purchase of product by the buyer deducting the required amount from buyer's account respectively.

3.1 Functionalities of the stalk holders

3.1.1 Admin:

The Admin is the super user of the system. The Admin is responsible for maintaining and managing the website. The Admin is responsible for checking every single transaction, from the updating of produce by farmers to the selling of produce to buyers.

Functionalities:

Admin can change the status while registration of the producer after checking his entire document, he can accordingly changes the status to active, pending and block. The producer can access the website if his status is active henceforth making the website more secure.

- Registration of producers and buyers after verification of given documents, data checking, adding crops, adding transportation company and transactions.
- Updating the website details (back end) which includes updating information in the tables accordingly whenever there is a change made.
- Fixing appropriate prices of farm products accordingly.
- Updating programs and schemes initiated by the government for farmers.
- Stores have details about buyers and producers for future reference.
- Admin adds crops uploaded by farmers after proper verification.

3.1.2 . Buyers:

Online farmers market helps you work with farms and food hubs all in one place. Maintain and manage existing relationships, discover and create new ones and bring the efficiency of an online system to your local food source.

Functionalities:

- Robust Product Search and Detailed Product Information.
- Produces Profiles That Include Farm Specialties and Growing Methods.
- Real Time Availability Lists with Price and Inventory Levels.
- Pay Through Net Banking.
- Place Orders and Access Invoices And Order History in Your Account.
- Streamlined Communications with Products
- Automatic Generation of Receiving Slips and Invoices

3.1.3 Producers:

He has profile page, robust tools for managing orders, customers, marketing farm, and managing deliveries.

3.2 Functionalities:

Manage orders and customers

- Accept orders online, keep track of past sales
- Work with existing buyers as well as new ones
- Automatically send buyers invoices and receipts

3.2.1 Marketing farm

- Increase online exposure
- Activate order activate items as season changes

3.2.2 Manage deliveries:

- Connect with third party for transportation facility provided by admin.

3.2.3 Manage financials:

- Implementation of net-banking.

- Keep track of buyer's payments and past sales.

4 SIMULATION REPORT

4.1 FEATURES OF SOFTWARE:

- ASP.NET-FRONTEND
- SQLSERVER-BACKEND
- ADO.NET-DATABASECONNECTIVITY

Most applications need data access at one point of time making it a crucial component when working with applications. Data access is making the application interact with a database, where all the data is stored. Different applications have different requirements for database access. ASP.net uses a dot.NET(active data object) data access and manipulation protocol which also enable us to work with data on the internet.

4.2 SOFTWARE REQUIREMENTS

Specifications	
Operating system	Windows 7/8/8.1
Browse	Internet explorer/Google chrome
Database	Microsoft SQL database
Technology	Asp.net, vb.net, c#.net

Specifications	
Hard disk drive	500GB
Processor	1.8ghz
RAM	4GB

4.3 HARDWARE REQUIREMENTS

4.4 SCREEN SHOTS

Homepage is the start page of this project. From here, user can navigations any other pages:



4.5 ABOUTFARMERS

Aboutfarmerspagehighlightsthe detailsoffarmersandtheimportanceofagriculturein India:



4.5 PROGRAMMES AND SCHEMES

This page provides information about all the latest schemes initiated by government of India:



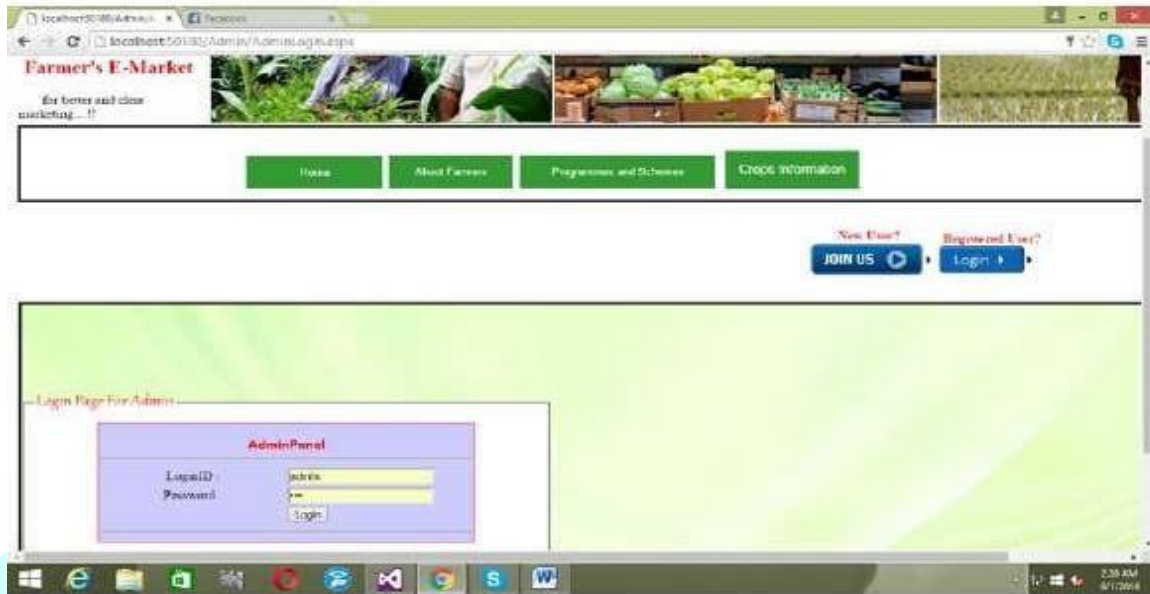
4.6 CROPS GENERAL INFORMATION

This page provides buyer with general information related to crops produced by farmers:



4.6 ADMIN LOGIN PAGE

Admin login page from where admin can navigate to any other pages and check details.



4.7 ADD CROP

Admin can add crop in this page which will be available to buyer for purchase.



4.8 PRODUCER'S INFORMATION

This page stores all the information on farmers who have registered and uploaded their products



The screenshot shows the 'Farmer's E-Market' interface. At the top, there are navigation buttons: 'Add Crops', 'Producer Detail', 'Buyer Detail', 'Display Product Details', 'Transactions', 'Transactions', and 'IDG DGT'. Below this is a table listing registered producers.

PID	Passes	EmailID	Address	District	City	State	pincode	contactNo	AccountNo	AccountDetail	AuthNo	AuthuploadIDProof	IDupload
Scholt P001	Shales	schol.stadler@gmail.com	Indrayug	24	Parganas	Kolkata	700912	9163739962	145782145687	IndrayugJAMK	124784123658		Krishi Card
Scholt P002	Shashan	shashan.stadler@gmail.com	Indrayug	24	Parganas	Kolkata	700130	8991179171	43781265478	IndrayugJAMK	754321268194		Krishi Card

4.9 FINAL TRANSACTION PAGE

This page confirms the purchase of product by buyer and receipt can be produced after final submission,



The screenshot shows the 'Final Transaction' page. It displays the following details:

- Product ID: PR002
- Date of Transaction: 6-1-2016 10:06:32 AM
- Transaction ID: T0019
- Crop Name: Cotton
- Crop Quantity (Quantity): 500
- Crop Price (Rs/quantity): 4000

At the bottom, there is a 'SELL' button and a 'Submit and Generate ed' button. The background features a collage of icons related to agriculture and commerce, including a lightbulb, a hand holding a pen, a gear, a percentage sign, a padlock, and a 'SELL' sign.

4.10 TRANSPORTATION PAGE

In this page, buyer can select any of the two ways for transportation. He can either ask admin or arrange by himself.



5. TESTING REQUIREMENTS

Testing can be done based on test cases. Test case has components that describes an input, action or event and an expected response, to determine if a feature of an application is working correctly for this project the application must generate the following,

- Valid username

- Valid password

The input given by the user must be checked from the database.

Login id = { valid login id, invalid login id }

Password = { Valid password, Invalid password, Empty }

Steps format thing to carry out the test for login page:

- Valid login page

- Enter email id

- Enter password

- Click login

CONCLUSION

Part of our system has been developed with care so that it is free of errors and at the same time it is efficient and less time consuming. The important thing is that the system is robust. We have tried our best to make the site as dynamic as possible. Also, provision is provided for future developments in the system. The entire system is secured. This online system is made to keep in mind all the pros and cons. The internet has become major source in modern business, thus electronic shopping has gained significance not only from the entrepreneur's but also from the customer's point of view. For the entrepreneur, electronic shopping generates new business opportunities and for the customer, it makes comparative shopping possible. As per the survey, most consumers of online stores are impulsive and usually make a decision to stay on a site within the first few seconds. We have designed the project to provide the user with easy navigation, retrieval of data and necessary feedback as much as possible. A good design must be accompanied by a user-friendly application logic. It should be convenient for the customer to view the contents of their page and to be able to update information in their interface. The features are designed for the customer to make them more comfortable. This project helps in understanding the creation of an interactive web page and the technologies used to implement it. The building of the project has given us the idea and precise knowledge about how the application can be developed, how it connects to the database and how the data and web pages are modified as required. The main motive for the project was to provide dynamic online farmers' management system to help farmers in every possible way and provide them a stable platform where they can perform every transaction at ease.

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