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The Farm Assistant-Web Application for Farmers

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Abstract: *Agriculture is a top priority in India but today the people involved in agriculture are of a lower class and face a lot of trouble in their day to day life due to extreme poverty. Due to lack of awareness of modern technology or advanced techniques it leads to Farm poverty. The purpose of this project is to help farmers to solve their problems in an instant of time. Smallholder farmers who well educated, most of the agricultural products are faced a wide array of problems, including access to sufficient information, services. Middleman's role in marketing the farm product is necessary to remove in order to provide direct sales and good value to farmers and customers. In this application farmer can book vehicles regarding farm. This application helps farmers ensure maximum profitability by using direct farmer to customer and language communication with farmers. This optimization site allows for better communication between the farmer and the customer. Through this application we can guarantee farmers to make selling decisions most advantageously.*

Keywords: Agriculture, Farm Assistant

I. INTRODUCTION

The agricultural information system provides its users and researches to get online information about, the crop, statistical details, new tendency and tracking of vehicles The trends of the fertilizers, plants act so that these will be pretty important to the users who access these via the Internet. The main features of the information system includes information retrieval facilities for users from anywhere in the form of obtaining statistical information about fertilizer and production.

Developed countries are using Management Information System to assist deferent task for their end users or clients. The main objective of this proposal is to introduced an agricultural information about the main fertilizers of India, mainly Urea, ammonium Chloride, calcium nitrate as many more. They will obviously expect the right amount of money for their efforts. But not every consumer gets the farm products at the Factory Price. They go through three to four middlemen and reach the customer with almost double the actual price. The same goes with the farmers. If they have to buy manure or some pesticides, they don't get it at the right price at the right quality.

Web Application also helps in relationship and communication between customers and farmers. This Application also helps in booking vehicles regarding Farm like Tractor or Mini Tractor with their other equipments, etc. It becomes necessary to establish such systems which help to resolve farmer's problem through Web Application.

The requirements needed for the application are: Details of products from farmers and consumers, Expert analysis, Cost estimation, Quality check.

II. LITERATURE SURVEY

1. **Crop Shop:** An application to maximize profit for farmers. [1] This Paper propose that provide login for seller and buyer separately. Authors also mention one thing that Filter portal that work on both Seller and Buyer login. In Filter Portal for Buyer they can explore contents on application, Select the crops, Search by nearest Seller and also asks for Buyer you have any transportation facility or Not. Seller can post advertisement related their Crops. Authors also talks about Checkout portal, in that Buyer can scan Barcode for payment by cash or online.
2. **Digital Market:** E-Commerce Application For Farmers [2] This Paper Propose that providing android application and website in that farmer can sell their Products to multiple level as to Agent, Market or Directly to Customer. In this System, Farmer can find Nearest Market and Also they provide complaint box for farmers to launch complaint. In this Paper, System set minimum price to minimum Quality of Products. This application provide Information like market details, Users, complaints.

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3. **Agriculture Marketing Using Web and Mobile Based Technologies [3]:** This Paper talks about Agriculture Marketing. System provides details of Farm products from Farmers Also Analyzing of products done with the help of Experts. Flow of Marketing between Sellers and Buyers as Seller can sell directly to the customers, Retailers, Agents

III. System Specification

"The Farm Assistant" is a web-based application, in this system, there are many tasks will be done! In this Admin login, User as a customer or farmer, another login as vehicle login for vehicle owner. Admin has work to maintain communication between customer, farmer. Data collection will be possible in our system, Data related contact no., address, and other mandatory details will get stored And for vehicle (driver) login data will collected such as Vehicle Owner Details, Driver details, Vehicle Papers and all. Admin will verify and confirm Driver data and admin will approve or reject driver on basis of documentation. For Purchasing or Selling products like Farm Production of Farmer, Equipments, Fertilizer, Seeds, etc. Data also present in this System.

IV. Proposed System

4.1 Admin Module

Admin has important parts farmer and customer as user and driver. Admin has to maintain relationship between Farmer and Customer. Admin can update or delete wrong records which added by farmer of their Farm production. Following are the steps involved in Admin Module.

- Update Information regarding Fertilizers, seeds and other information related farmer
- Checking of users and Drivers.
- Authentication of Driver
- Update Vehicle Transportation status
- Set Rent of vehicle per hour
- Updation in Tracking of Order

4.2 User Module

User has to register himself first in the system. User authentication will be get done in system by sending OTP to Email id. User has different task to perform, user can update his information in profile. Farmer and Customer are the users in System. Following are the steps involved in User Module.

- Updation of profile.
- User can book Farm related vehicles for particular Time
- Check Transportation status
- User can Sell their Farm products, Instruments by updating product details
- User get invoice of ordered products.

4.3 Driver Module

In Driver module, driver can accepts or rejects users request of vehicle rent. If user need more time then driver can extend time. After completion of their work, send bill to user for payment. Following are the steps involved in Employee Module.

- Approval and disapproval of user requests.
- Authentication using text local

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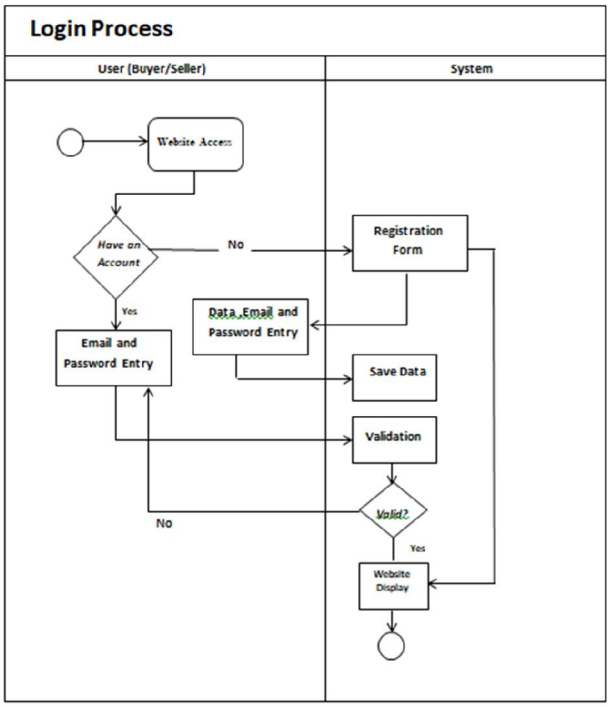

Figure 1: Login Process

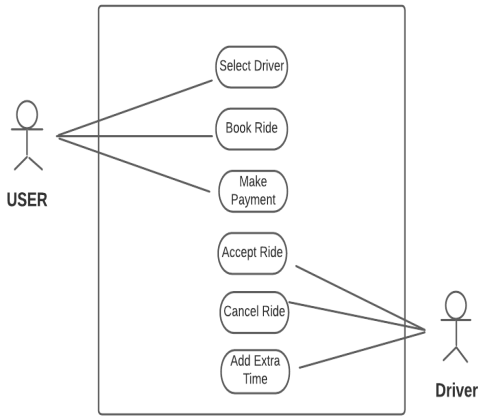

Figure 2: Booking Module

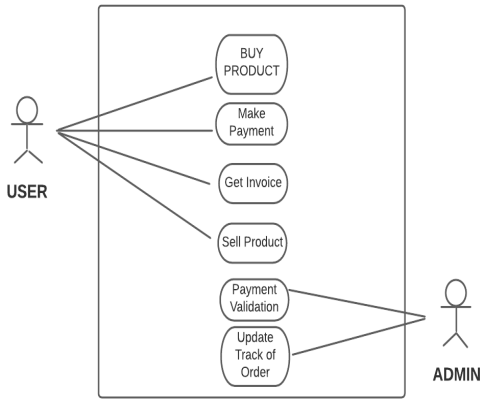

Figure 3: Purchase/Sell Product

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V. TECHNICAL SPECIFICATION

5.1 Software Description

- **ASP.NET:** .NET is a developer platform made up of tools, programming languages, and libraries for building many different types of applications. ASP.NET extends the .NET developer platform with tools and libraries specifically for building web apps.
- **SMTP:** The Simple Mail Transfer Protocol is an internet standard communication protocol for electronic mail transmission. Mail servers and other message transfer agents use SMTP to send and receive mail messages.
- **Hash Function:** A hash function is any function that can be used to map data of arbitrary size to fixed-size values. The values returned by a hash function are called hash values, hash codes, digests, or simply hashes. The values are usually used to index a fixed-size table called a hash table.

5.2 Advantages

1. Agriculture information system intracts with and influences agriculture productivity in variety of ways. In this the system can interacts with agricultural related things that was helpful to farmers. This become easy to our farmers to save their times to sell their products in various markets. It also increase productivity in various ways.
2. It can help to farmers to import and exports fertilizer, plants, and many more etc. This will be helpful to farmers to easily Buy and Sell their products through our application. They can also sell their own products at their own cost. They also rent their vechils for others for their work and this will calculates their working time of vechils.
3. Agriculture productivity can arguably be improve by relevant , reliable and useful information and knowledge. In this application farmers can know the latest trends of Fertilizers and Instruments for farming. It is useful for farmers to increase their knowledge in various ways.

5.3 Disadvantages

1. The only disadvantage that the users who don't have internet connection can't access the system.
2. But there can be a future enhancement where we can setup and registration camp where user with lack of access of the systems can provide details to the system via any Officials person.

VI. RESULTS

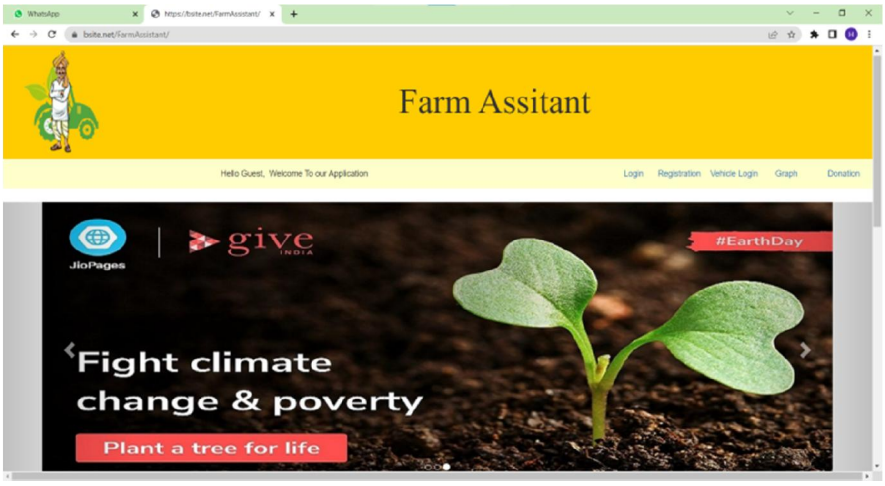

Figure 4: Home Page

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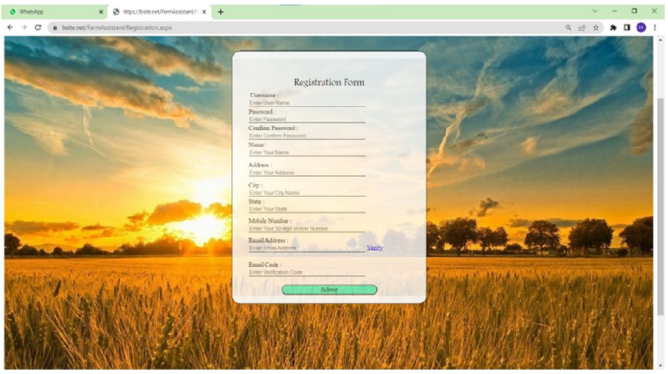

Figure 5: Registration Page

Figure 6: Farmer Selling Page

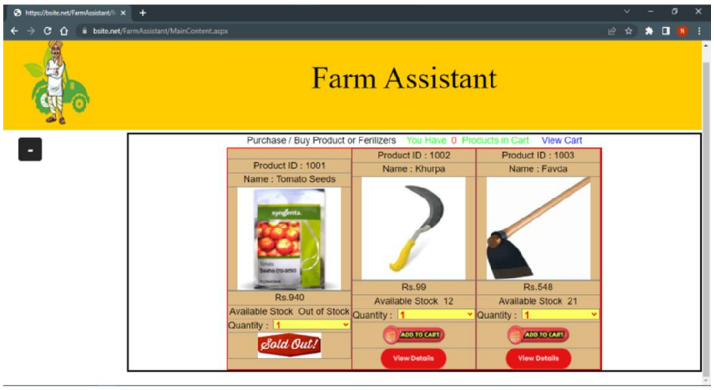

Figure 7: Purchase Product

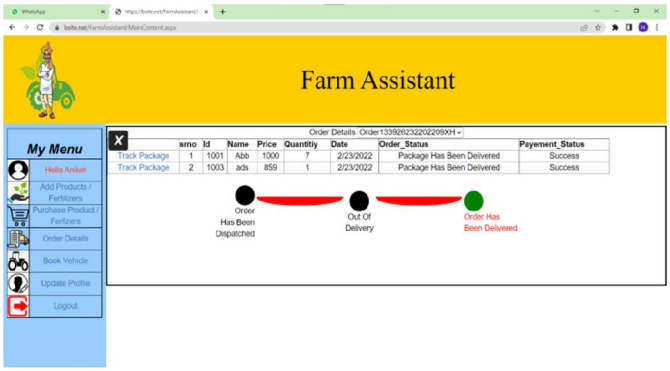

Figure 8: Order Details

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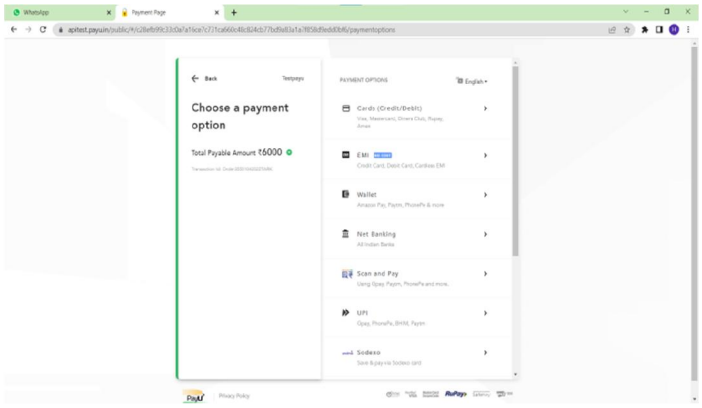

Figure 9: Payment Options

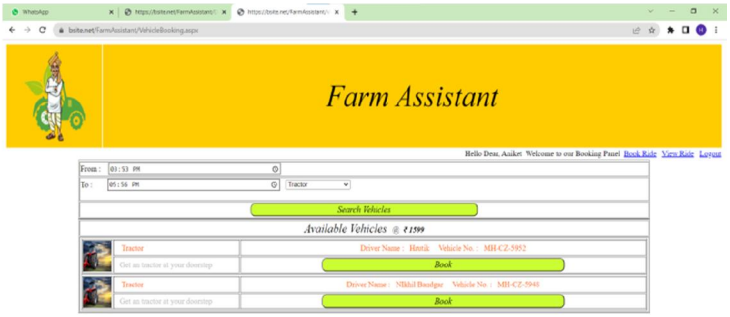

Figure 10: Vehicle Booking

VII. Conclusion

In this paper, the system in which farmers directly connected with customers. The System provide feature like Booking vehicle in that farmer can book Farm vehicles from anywhere. This Paper is an initial proposal to show that this kind of information system is forcible. The real benefit of this type of information system to agricultural based country such as India can be seen when it become operational as fertilizers, Buyers, Sellers, will have access to up to date information. In addition to that all the major prospects should be provided with internet access and the necessary human recourse personals to make this project a reality.

Acknowledgement

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