

Farmer Fest online tool based on Service-Oriented Architecture

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Abstract - In current scenario information and communication technology (ICT) is a key structure for economic development. The development of information technology in agricultural organizations make it easier and cheaper access to it enables the development of electronic relationships with customers, which automates the communication with customers and provides an answer to their requests in real time, which leads to increase of customer satisfaction. E-commerce has had a real impact on the way business is conducted. As from last few years, the smartphone is growing in India which leads the use of e-commerce website very common. Almost all the farmers now own a mobile phone out of which 40% are smartphones with internet connections. Farmer Fest is a stage for supporting marketing of agricultural products. By using our system the farmer can be able to save money which the broker is getting through his percentage.

Key Words: agriculture, ICT, e-commerce, agribusiness, smartphone, online shopping, Service Oriented Architecture (SOA), web application.

1. INTRODUCTION

In Agriculture, a service-oriented architecture (SOA) is a method of software design where it provides solutions to satisfy the customer by applications over a network. The basic principles of service-oriented architecture are it is independent of vendors, products, and technologies. Previous Systems research on web applications has mainly focused on the technology for improving the communication discovery, performance, and productivity. Agriculture has been contributing towards the Gross domestic product of the country's economy. But this growth can be increased by the welfare to the farmers by serving them better. By using our system the customer can directly communicate to the customer. In this way, the broker system will be removed. Farmers are being provided with knowledge-based information through various Toll-Free numbers, internet sites, mobile apps, and other means. But there is no such a system where the farmer can provide their products according to their need and earn money instantly. This paper presents a Smarter Agriculture solution through precision agriculture.

2. LITERATURE SURVEY

Kittur Nazhat, Rajendra Jain, and Parveen Kittur [3] has proposed system as The research led to the conclusion that a sustainable m-commerce platform for the sale of agri inputs partnership, media mix, innovation, simplicity, timeliness,

quality, and credibility. ICT in agriculture has just been developing quickly in the Kolar area. Agricultural m can gain speed by creating more awareness and educating the farmers. The challenge of logistics can be solved by partnering with the major dealer who is locally available. The construction of m-commerce platform for agriculture is the only way to open the market.

Santosh Gaikwad, Snehal Chaudhari, Bharti Deore and Swapnil Adhav [9] has proposed system as Based on the results obtained from the over, the following conclusions were prepared: Majority of farmers in the condition or country is not aware that mobile phones can be used to conduct businesses and collect information. Mobile phone costs should be lower to enable the majority of farmers for having access to the current information about agribusiness within the state or country. E-Agriculture has not been implemented because farmers in the country have not been sensitized to it & young farmers were in lack of information about the agriculture such that e-agriculture might provide them useful information's regarding the plantations that they have grown. The government should also carry out sensitization to create awareness for the farmers on how best they can use information technologies to conduct agribusiness. Illiteracy among farmers in the understanding message is also another factor that pertains the usage of technology in agriculture, to overcome this it is necessary to create awareness of learning the state language such that the notes send will be in the state language.

Nidhi Dwivedy [10] has proposed as Decision Support Systems for is more important and usually, avoids risk developing environments. It has been suggested that the WTO is stipulating reductions for export subsidies on farm products will make Indian exports more competitive. It has been estimated that the export potential may increase up to \$ 1.5 billion by 2020. The advantage of the emerging order is that the Indian farmer needs to be equipped with information that has been facilitated by undertaking a proper SWOT analysis and its comparison may lead to conventional wisdom and satisfy himself on an appropriate course of action. The Available information does not satisfy which projects on the weaknesses of the adverse affect of WTO on any specific agricultural product will help in taking the necessary corrective measures. In the present scenario, the competitive advantage is necessarily required to be fully exploited for increasing the export potential.

NA XU, SUPING PENG, AND ZHANGANG WANG [12] proposed system as Service composition has emerged to allow multiple functions, fine granularity, and fast access to

applications. In addition, service composition can be invoked any time on the web so as to facilitate easier, faster, and much more cost-effective rebuilding. Hence, a need emerged for the development of a geodata service composition web application. The main contribution of our paper is to describe the design and implementation of a geodata service composition web application based on service-oriented architecture. Service semantics is used for describing geodata service composition to align the technology environment with its business process. Service processes can be modeled as service nets using Petri nets; thus Petri nets were chosen to model the geodata service composition, and its structural analysis techniques were used to verify deadlock. Finally, the implementation architecture of a geodata service composition web application has been proposed and implemented. We believe that this contribution is theoretically and practically relevant because of the advantages offered by service composition web applications for geodata applications, including cost-effectiveness, ease of use, flexibility, reusability, and ease of deployment.

3. PROPOSED SYSTEM

- Now a days farmer has to sell their cereals with the help of a broker, who provide the very low cost to the farmer because the broker earns his percentage.
- As above mention the process is also long, the farmer has to wait for any particular party for selling the cereals.
- Our system will provide direct communication between the farmer and the customer or buyer.
- The farmer has to add their cereals on the website and the buyer will search for particular cereals.
- If the buyer order for the cereals then a message will forward to the farmer which contains the number of cereals and the address of the buyer.

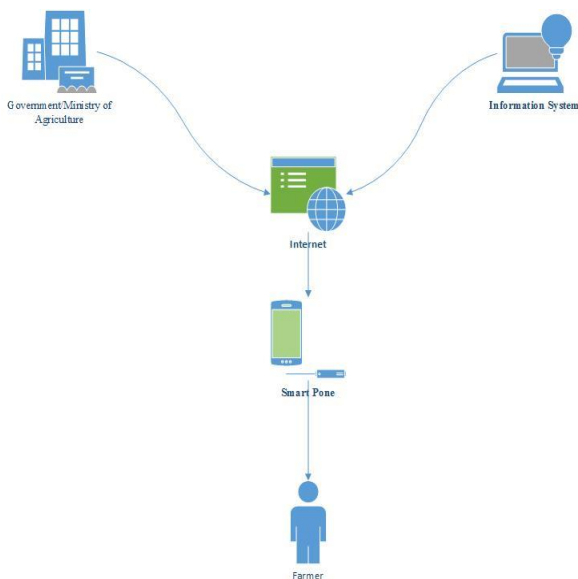


Fig:Proposed system

Working:

In this system, the user has to register their details by providing the necessary details which display on the page. After registration, the users can be login to our website by placing the email and password. After login they will display a home page where different products will be displayed, the customer can choose the item according to the necessity, if any customer wants to know the description about the product then there is a short description provided for each product. After adding the selected item in the cart they can proceed further for checkout page, where different payment modes are available. The customer can choose the payment mode and proceed further. After payment they will have to click on place order & a message will be displayed that order successfully placed.

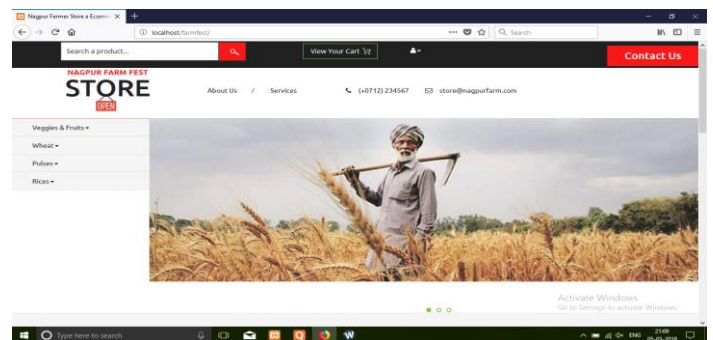


Fig:Home page

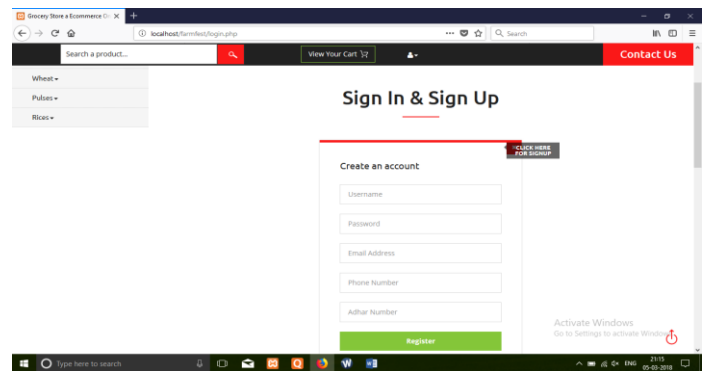


Fig:Sign In & Sign Up page

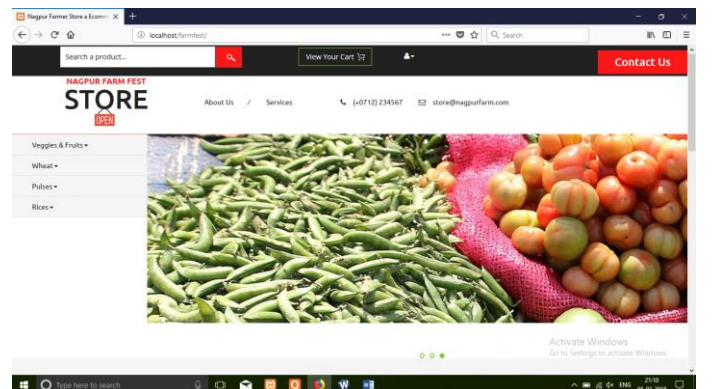


Fig:After Sign Up

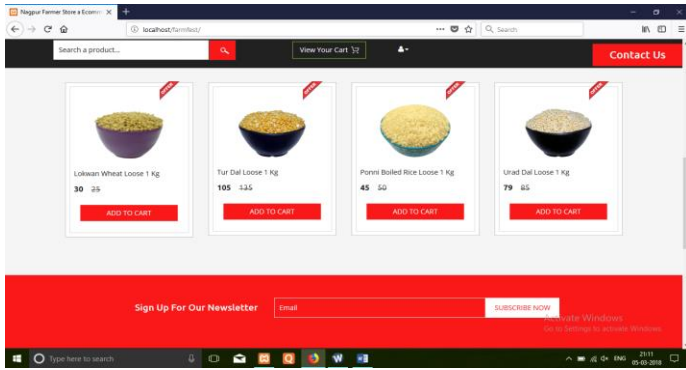


Fig:Select grains to purchase

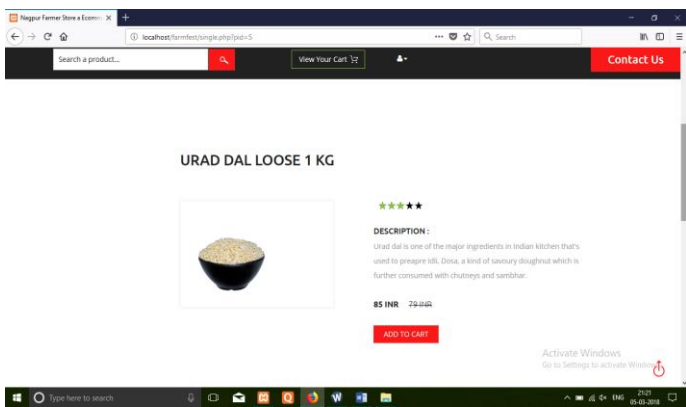


Fig:Short description about grain

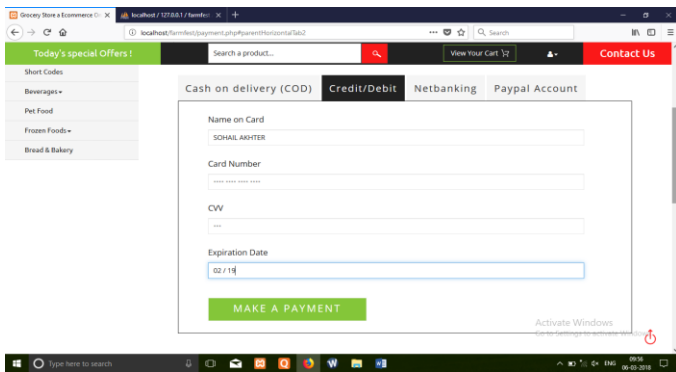


Fig:Payment process

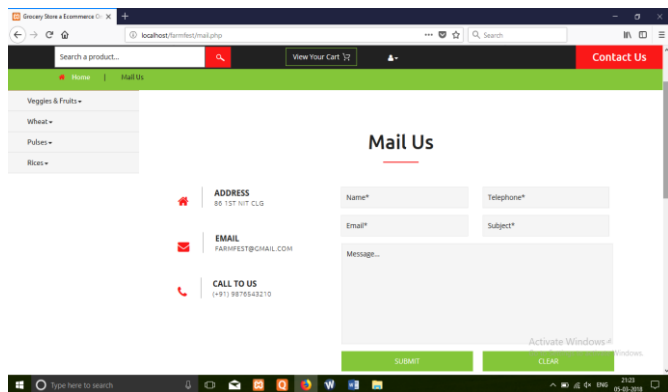


Fig:Contact Us

4. METHODOLOGY

Service Oriented Architecture (SOA):

Service Oriented Architecture is a way of integrating business application and processes together so that it meets the business needs. SOA provides agility and affability to business processes. The changes to the process or any application can be directed to a particular component without affecting the whole process. The software developers in SOA either develop or buy chunks of programs that are called SERVICES.



Chart -1: Service Oriented Architecture

Rapid Application Development (RAD) Model:

In Rapid Application Development model the components or functions are developed in parallel as if they were projects. This can quickly give the customer something to see and use and to provide feedback regarding the delivery and their requirements. It is used to complete the project in very short amount of time. In RAD Model the involvement of the client and the developer is necessary throughout the project.

Agile Model:

Agile Model focus on process adaptability and customer satisfaction by rapid delivery of working software product. Agile Methods break the product into small incremental builds. These builds are provided in iterations. Each iteration typically lasts from about one to three weeks. Every iteration involves cross functional teams working simultaneously on various areas like –

- Planning
- Requirements Analysis
- Design
- Coding
- Unit Testing and
- Acceptance Testing.

At the end of the iteration, a working product is displayed to the customer. It accept the changes in any phase of the product. By using Agile Model, it is very easy to understand the working of the project.

5. CONCLUSIONS

Online shopping is trading services and products with the help of internet. The e-commerce has been at the peak in India during past 4 years, the fast-growing technological changes have opened an option of online selling and purchase for a common man in India. Our Proposed System is an online platform for farmers and Customers to communicate directly to facilitate hassle-free and convenient market to buy and sell all agriculture products. And Our System gives a platform to Farmers and Buyers to provide services to contact directly for selling and purchasing products, mode of delivery on choice farmers whose self or any shipping partners and medium of payment, etc.

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BIOGRAPHIES



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