

Design and Implement Agri Market Place using Block chain Technology

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Abstract: Agri Market placed is a digital platform for Agriculture services under multiple areas. It's outstanding performance in husbandry. It'll directly connect growers and guests through digital platform. It's platform for growers to connect directly with their buyers for dealing their products at better competitive rates. It'll be easy for the buyers to get agrarian information, to compare the rates of products at one place and get profitable deals. It's an occasion for managing business from anywhere. The digitalization and internet spread in pastoral areas allow growers and guests to gain access to information, services and requests. And connect with the buyer. It'll lower the cost of transportation for the merchandisers. growers can connect with Agri- Experts for agrarian problems, results, etc. Digitalization will make these effects easy and accessible for growers and guests. Development of nation depends on development of husbandry.

Keywords: Agri Market- placed, Ecommerce, Digital platform, online sale, Digitalization, block chain Technology etc

I. INTRODUCTION

Farmers, integral to Indian society, work tirelessly to provide sustenance. However, the disparity in income from crop sales raises concerns about their survival. Agriculture serves as India's backbone, emphasizing the need to maintain the chain for future generations. The Agri Market-placed platform emerges as a solution, connecting farmers with retailers, traders, and wholesalers to facilitate the sale of agricultural produce at competitive rates, fostering a fair pricing system that benefits both consumers and farmers.

II. RELATED WORK

The significance of agriculture in Indian tradition underscores the responsibility to sustain this practice for future generations. Agri Market-placed addresses this by developing an application that serves as a productive resource, eliminating the challenges faced by farmers due to intermediaries. The platform enables direct sales from farmers to end-users, setting prices based on crop quality and reducing storage issues. With five operational phases covering farmers, agri-inputs, agri-guides, agri-students/professionals, and agri-bazaar, the platform provides comprehensive agronomic services, fostering economic growth and poverty reduction.

III. PROPOSED WORK

Agri Market serves as a platform for farmers to connect with retailers, traders, and wholesalers for the sale of agricultural produce at competitive rates.

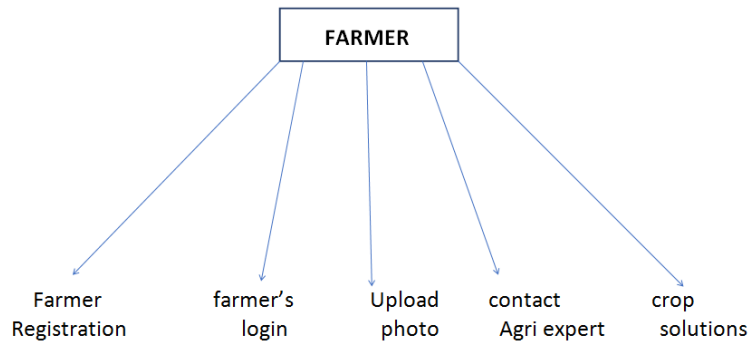


Figure 1

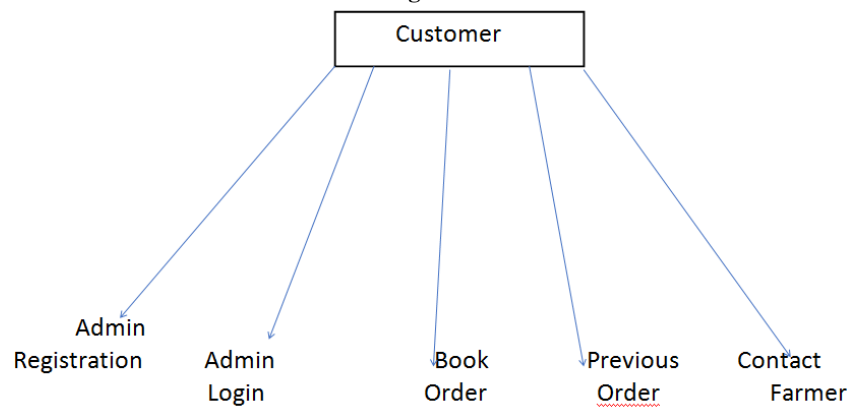


Figure 2

Farmers side Login:

Farmers create profiles with details such as name, location, contact information, and types of crops produced. They can access information about retailers and wholesalers interested in specific crops. By uploading crop details, farmers can attract potential buyers, who can then contact them.

Retailers side Login:

Retailers create profiles with their requirements for specific crops, displayed to farmers. Farmers respond to these requirements, and retailers choose the crop they prefer, initiating contact with the respective farmer.

IV. DESIGN AND ARCHITECTURE

Components of the Agri Market-placed E-commerce platform include a web browser for frontend access, payment gateways for online transactions, web servers, application servers, reverse proxy servers for security, load balancing, and caching, catalog management, order processing, and inventory management components. The architecture integrates authentication, authorization, and accounting systems, along with relational and NoSQL databases for data storage and analytics.

Authentication, authorization and accounting systems.

Databases: Relational databases like MySQL, Oracle, and SQL Server.

NoSQL databases like Mongo DB for big data storage..

Data analytics systems.

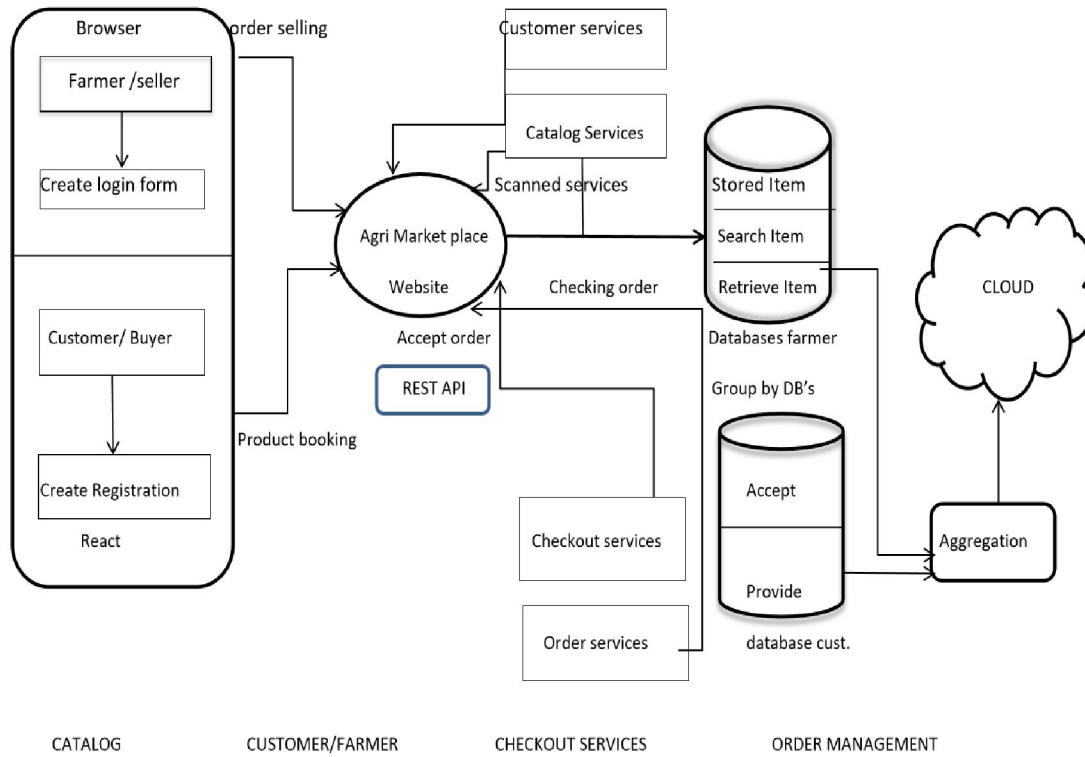


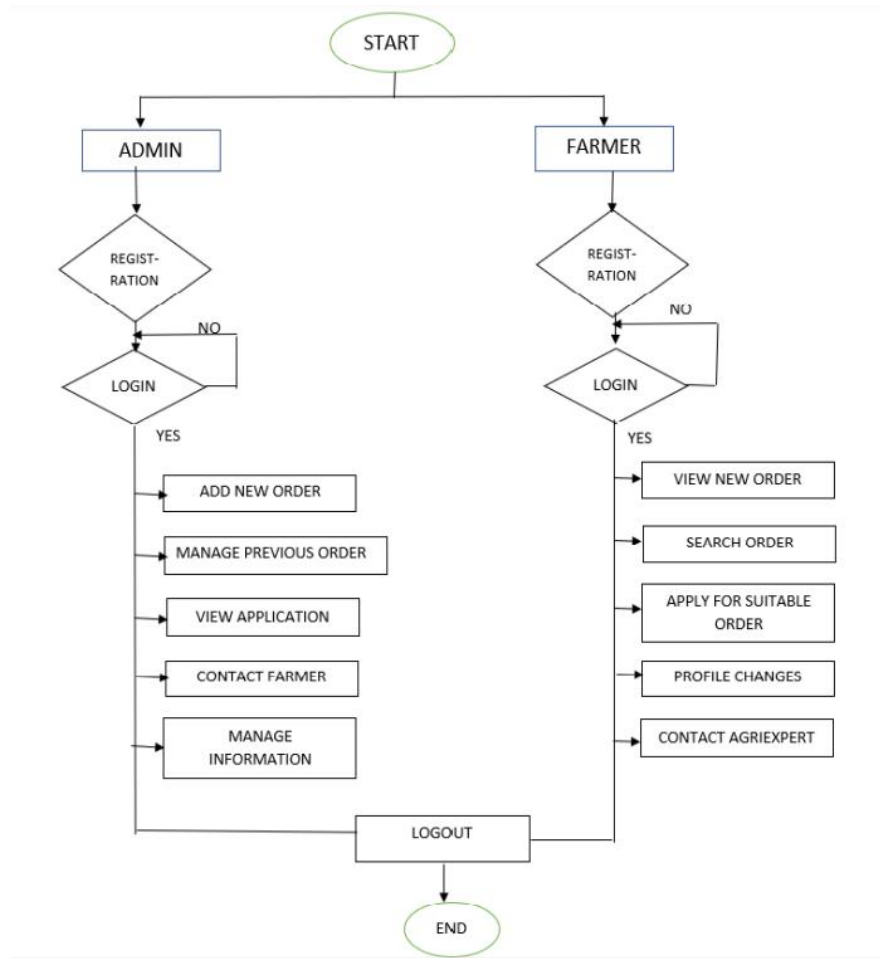
Fig. System Architecture of Agri-Market place

Requirements gathering for processing:

- A. Farmer logging: Farmers create profiles with relevant details, including crop types produced.
- B. Customer logging: Retailers view responses from farmers, enabling them to select preferred crops and initiate contact.

Block chain Technology in Agri Market place:

A.Evaluation:E-commerce sellers can rely on block chain-led bitcoins and a host of other crypto currencies to avail cost-effective digital payment solutions. By removing middlemen and intermediaries from the payment process, block chain eliminates transaction and processing fees, allowing retailers to achieve cost-effectiveness.



V. FUTURE WORK

Now we are close to developing proposed system. In future, we are about to develop a platform for proposed system, which will provide following features:

1. As we approach the final stages of developing the proposed system, our future work involves the creation of a platform with the following features:
2. Development of a user-friendly application for easy usage.
3. Implementation of an interface predicting climatic conditions, assisting farmers in optimal crop selection based on climatic data.
4. Reduction of time consumption in the crop-selling process by eliminating middlemen.
5. Addition of a feature connecting retailers to customers within the application.
6. Facilitation of retailers in accessing the best products in the market and enabling users to explore crops from different regions without leaving their homes.

VI. CONCLUSION

While the primary goal of marketing/business is profit, the progress of a village hinges on the modernization of its farmers. A digitally-enabled farming community with collaborative workgroups and efficient marketing practices ensures a brighter future for both individual farmers and the nation. The introduction of digitalization allows farmers to connect with retailers effortlessly, promoting a profitable relationship for both parties. Given that agriculture forms the backbone of our nation, preserving its essence for future generations becomes a collective responsibility. This platform

serves as an encouragement for farmers to persist in farming, ensuring just rewards for their efforts and steering the country towards digitalization.

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