



CROP MART- A Transparent Solution for Farmers

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Abstract

CropMart is an innovative web-app that puts farmers at the center of the sales process, reimagining the conventional agricultural marketplace. CropMart's user-friendly digital interface enables farmers to sell their produce directly to buyers, bridging the gap between farmers and consumers. In contrast to traditional markets where middlemen may set prices, CropMart gives farmers complete control over pricing. This special feature gives customers access to fresh, premium produce at clear rates while guaranteeing that farmers are fairly compensated for their labor and effort. Farmers can use CropMart to display their goods, give thorough product descriptions, and establish prices that take into account variables like seasonality, market demand, and production costs. In response, customers are able to peruse an extensive assortment of products supplied locally, buy with assurance, and assist local independent farmers. Transparency and trust are also top priorities for CropMart.

Keywords: Cropmart, Farmertocustomer, Multilingual, Transparency.

1. Introduction

CropMart is a paper that works for the agriculture industry and is changing the way that farmers and consumers interact. It functions as a digital marketplace that gives farmers the freedom to independently sell their produce to consumers directly, cutting out the middlemen. CropMart guarantees fair compensation for agricultural products by giving farmers choice over pricing while providing customers with transparent access to high-quality, locally sourced commodities. By giving them the opportunity to highlight their products, establish competitive prices, and give comprehensive product information based on variables like production costs and market demand, the platform helps independent farmers build community support. In the agricultural industry, CropMart places a strong emphasis on openness, credibility, and the development of long-lasting, direct-to-consumer connections. The primary

objective of the CropMart paper is to empower farmers by providing them with a platform where they can control the pricing and distribution of their produce. This paper aims to eliminate the need for intermediaries, ensuring that farmers receive fair compensation for their hard work. By enabling farmers to directly connect with consumers, CropMart enhances their ability to showcase their products with detailed descriptions and images, thereby fostering a direct relationship with the end consumers. Additionally, the platform is designed to offer consumers access to fresh, locally sourced produce through a user-friendly interface, ensuring a transparent pricing structure and high-quality product information. improve the sustainability and overall effectiveness of the food supply chain.

1.1 Objective

CropMart is a paper that works in the agriculture



industry and is changing the way that farmers and consumers interact. It functions as a digital marketplace that gives farmers the freedom to independently sell their produce to consumers directly, cutting out the middlemen. CropMart guarantees fair compensation for agricultural products by giving farmers choice over pricing while providing customers with transparent access to high-quality, locally sourced commodities. By giving them the opportunity to highlight their products, establish competitive prices, and give comprehensive product information based on variables like production costs and market demand, the platform helps independent farmers build community support. In the agricultural industry, CropMart places a strong emphasis on openness, credibility, and the development of long-lasting, direct-to-consumer connections. Scope The paper's scope includes creating a feature-rich application that acts as a middleman between farmers and consumers to enable direct sales of agricultural goods at set prices. User Authentication and Authorization, Farmer Profile Management, Product Listings and Search, Shopping Cart and Checkout are some of the main elements and functions that fall under the purview of the paper. The paper's overall goal is to create a feature-rich, intuitive application that will help farmers and consumers communicate directly, encourage fair pricing and openness in agricultural trade, and improve the sustainability and overall effectiveness of the food supply chain.

1.2 Definition

Intermediaries frequently set pricing and manage food distribution in many agricultural markets, which results in low returns for farmers and inflated prices for consumers. Furthermore, the absence of openness and direct connection between farmers and consumers in traditional markets results in inefficiencies and a lack of confidence throughout the supply chain. In order to give customers access to fresh, locally sourced fruit, promote openness and trust in the agricultural industry, and enable farmers to sell their goods directly to consumers at fair.

1.3 Existing Approach

Agricultural transactions normally take place through conventional channels involving middlemen, retailers, and wholesalers in the absence of the

suggested application. Farmers frequently depend on these middlemen to sell their produce, which has a number of disadvantages: 1. Lack of Control over Pricing: Because prices are frequently set by middlemen based on supply and demand in the market, farmers have little influence over how much their products are priced. 2. Limited Transparency: Customers are unsure about the quality and fairness of agricultural products since they have limited visibility into the origin and cost of those products. 3. Ineffective Distribution: The current agricultural supply chain is frequently convoluted and ineffective, which leads to delays, wasted product, and higher expenses. 4. connection Barriers: Direct lines of connection between farmers and consumers are few. 5. impeding the development of rapport and trust.

1.4 Drawbacks in Existing System

Agricultural transactions normally take place through conventional channels involving middlemen, retailers, and wholesalers in the absence of the suggested application. This reliance on middlemen has a number of serious disadvantages. Because middlemen frequently set prices based on supply and demand in the market, farmers have little control over how much their products are priced. Due to this circumstance, farmers may receive less money for their food, which might not fairly represent the full expenses of production and the labor they put in. Furthermore, consumers are not always aware of the source or cost of agricultural goods. This lack of openness may lead to doubts about the produce's authenticity and quality. Without easy access to details regarding the products' origins and methods of cultivation, customers might find it challenging to make knowledgeable choices when making purchases. Moreover, the current chain of supplies for agriculture is frequently convoluted and ineffective. Produce that is perishable may be wasted due to delays in the distribution process caused by several layers of intermediaries. The overall costs increase with length and complexity of the supply chain and are frequently passed on to the consumer. The absence of direct channels of communication between farmers and customers creates major communication hurdles as well. Because there isn't a direct exchange of information, it's difficult to build

rapport and trust, which keeps customers from asking questions about specific products or giving the farmers evaluations. The traditional agricultural system is inherently inefficient and opaque, which highlights the necessity for a more efficient and farmer-focused solution such as the one suggested by this application.

1.5 Motivation for Proposed System

The goal of revolutionizing the agricultural marketplace and empowering farmers while providing consumers with greater transparency and access to fresh produce is the driving force behind the enhancement of the current homework tracker app to include features that act as a direct interface between customers and farmers. We guarantee that farmers maintain complete control over the price of their products by putting in place a farmer-centric pricing strategy. This empowerment is essential to guaranteeing they are fairly compensated for their laborious efforts since it enables them to determine pricing based on their actual production costs and current market demand. This strategy encourages fair trade practices, which helps to create a more sustainable agricultural economy in addition to providing financial support to farmers. The proposed system gives clients access to comprehensive product information, including pictures, descriptions, and fixed prices set by the farmers themselves, with the goal of fostering confidence and openness in agricultural transactions. Because of this openness, customers are guaranteed to be knowledgeable about the goods they buy, which promotes a climate of trust and dependability in the marketplace. Additionally, by enabling customized interactions, the addition of direct communication tools between farmers and customers improves the user experience. Customers can communicate with farmers directly to request bespoke orders, ask questions, and offer feedback, making the marketplace more dynamic and responsive. Convenience and efficiency are increased when transaction processes are streamlined so that customers may explore, add items to their cart, and check out with ease.

2. Methodology

Our web application for farmers aims to create a distinctive and user-centric platform that will change

the buying and selling of fresh products. Because farmers keep a higher portion of the sales money and can therefore earn better financial rewards for their efforts, the application acts as a bridge between farmers and buyers.

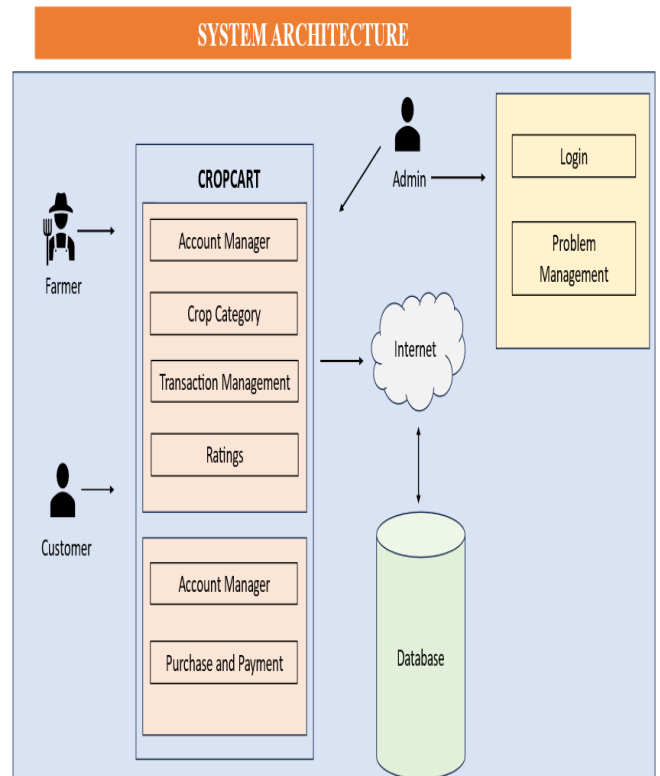


Figure 1 System Architecture

Our main goal is to ensure that farmers receive fair compensation for their produce by offering transparent pricing procedures. With the help of our web-app, farmers can sell their produce by creating customized profiles. Customers can examine product photographs and descriptions and place orders with only a few taps. Our software is unique in that it has a ground-breaking function that lets farmers guarantee agricultural transactions are transparent by showing predetermined prices. Our top priority is to simplify the process of purchasing and selling fresh fruit by creating an interface that is easy to use for both farmers and consumers. Our application aims to establish a strong feeling of community and sustainable growth by empowering small businesses and encouraging direct contacts Figure 1 shows the System Architecture.

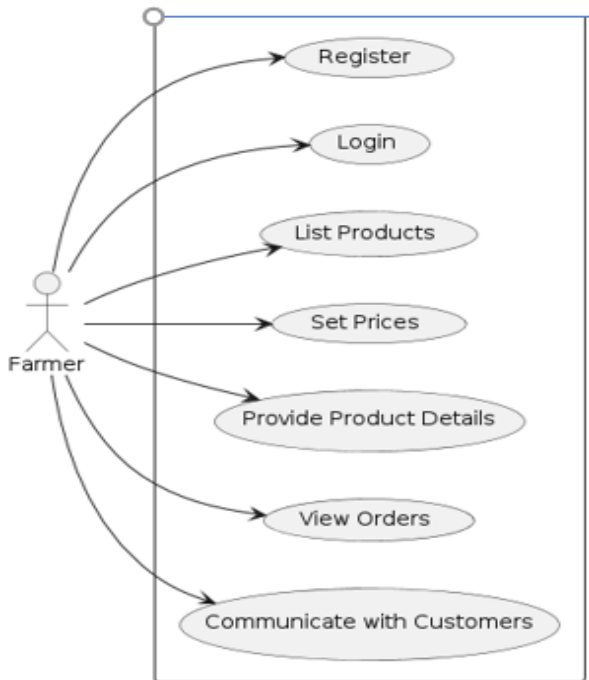


Figure 2 Use case Diagram of Farmer

Register: This option enables new farmers to sign up for a platform account and begin utilizing CropMart. **Login:** This feature guarantees safe access to the system by enabling farmers to access their accounts by providing their login credentials. Figure 2 shows the Use Case Diagram of Farmer.

List Products: This feature allows farmers to list their goods on the marketplace so that consumers may see and buy them.

Set Prices: This feature enables farmers to choose and modify the prices at which their goods are sold, guaranteeing effective and competitive pricing.

Provide Product Details: This feature enables farmers to add and edit details about their goods, including specifications, amounts, and descriptions.

View Orders: This feature helps farmers track sales and efficiently fulfill orders by allowing them to view and manage the orders submitted by customers.

Interact with Customers: Facilitates farmers' ability to engage and react to improves customer happiness and service by enabling farmers to communicate with and answer questions from customers.

Browse Products: Using this use case, clients can peruse the products that are offered on the CropMart platform. Users have the ability to search, filter, and

examine product data, including costs, pictures, and descriptions.

Make transactions: Using the CropMart application, customers can utilize this use case to securely add items to their shopping cart, check out, and complete their transactions.

Direct Communication: Customers and farmers can communicate directly thanks to this use case. Consumers can get in touch with farmers directly with requests or questions about their products, as well as to request bespoke orders.

View Orders: Clients can access order details, including payment and delivery status, as well as their order history and the status of their active orders.

Rate Products: Consumers can rate the goods they've bought, assisting others.

Update Profile: Using the CropMart platform, this use case enables users to update their personal information, delivery addresses, payment methods, and preferences. Figure 3 shows the Use Case Diagram of Customer.

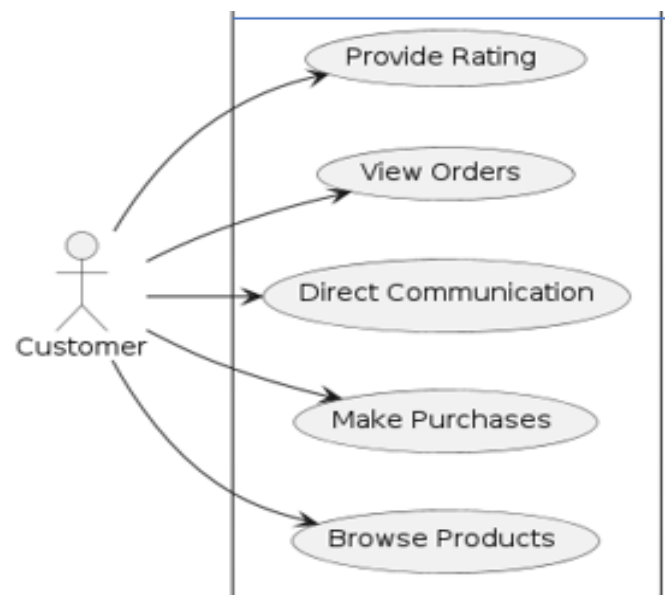


Figure 3 Use Case Diagram of Customer

3. Functional and Nonfunctional Requirements

3.1 Functional Requirements

- Enrollment and Verification of Users
Registration and profile creation must be possible for both farmers and consumers.



- Users should be authenticated by the system when they log in.
- **Farmer Profile Management:** Adding farm specifics, contact details, and available produce is only one of the many things that farmers should be able to add to and update their accounts.
- Farmers have the ability to amend their product listings and personal details.
- **Product Listings:** Farmers ought to be allowed to list their goods together with information about them, including the name, description, cost, quantity available, and photos.
- Prices for products can be set and updated by farmers.
- **Search and Browse:** Product names, categories, prices, and locations should all be available for customers to use while searching for products.
- It should be possible for customers to peruse the things that are offered.
- **Shopping Cart and Checkout:** Clients have to be able to load merchandise into a shopping cart and check out.
- **Direct Communication:** Using a messaging service or contact form, the system ought to enable direct communication between farmers and consumers.
- **Ratings and Feedback:** It should be possible for consumers to rate and comment on farmers and their goods. Ratings and comments from customers ought to be available to farmers.
- **Notifications:** Users should receive notifications from the system on significant events, like order changes and new messages.
- With the help of our web-app, farmers can sell their produce by creating customized profiles.

3.2 Non-Functional Requirements

Performance: There should be no appreciable performance loss when several users are using it.

Scalability: The system must be scalable in order to handle an increase in the volume of data and users.

Security: All users' data security and privacy must be guaranteed by the program. There should be safe

procedures for authorization and authentication in place.

Availability and Reliability: Aiming for 99.9% uptime, the system should have high availability.

Usability: Both farmers and consumers should find it simple and intuitive to utilize the user interface.

Maintainability: It should be simple to upgrade and maintain the system.

Compatibility: The program should work with a range of browsers and devices, including tablets, smartphones, and desktop computers. It ought to be compatible with many operating systems, such as Windows.

Conclusion

To sum up, CropMart transforms the agriculture industry by doing away with middlemen, allowing farmers to be fairly compensated, and providing customers with clear pricing. This promotes sustainable agriculture and develops local communities in addition to building confidence between farmers and consumers.

Future Scope

Geographic Expansion: Increase CropMart's presence in more nations or vast territories.

Sustainability Initiatives: Encourage environmentally friendly products and sustainable methods.

Community Education: Provide seminars and information on best practices and current market trends.

Mobile App Development: Make a mobile application to facilitate transactions and access.

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