LOCAL TRADING SUPPORT SYSTEM FOR RICE AND BEANS

Eaint Chu San, Chan Hnin Ko
Student, 5th Year, B.C.Sc.
University of Computer Studies, Hinthada

Supervised By
Dr. Win Lai Hnin
Faculty of Information Science
University of Computer Studies, Hinthada

Abstract. The local trading support system for rice and beans facilitates seamless interactions between traders, sellers, and buyers. It enables traders to manage product categories, monitor market trends, and ensure smooth transactions. Sellers can efficiently list and update product information, reach a wider audience, and track sales. Buyers benefit from a user-friendly interface to browse products, compare prices, and securely complete purchases. This system enhances transparency, boosts market accessibility, and ensures the efficient distribution of rice and beans across the supply chain.

Keywords: agricultural market, beans, rice, trader, buyer, seller

INTRODUCTION

The Local Trading Support System for rice and beans addresses the pressing needs of the agricultural market by facilitating seamless interaction between traders, sellers, and buyers. This system empowers traders to effectively manage product categories, monitor market trends, and ensure smooth transaction processes. Sellers can easily list and update product information, thereby reaching a wider audience and efficiently tracking sales. Buyers benefit from a user-friendly interface that allows them to browse products, compare prices, and securely complete their purchases. Ultimately, this system enhances transparency, boosts market accessibility, and ensures the efficient distribution of rice and beans throughout the supply chain.

PROBLEM

Farmers and traders in the agricultural sector frequently encounter significant challenges, such as limited market access, ineffective communication, and inefficient sales processes. These issues hinder their ability to optimize pricing, manage product inventories, and engage effectively with customers. The absence of a unified platform exacerbates these challenges, leading to a reliance on intermediaries that can diminish profitability for sellers while raising costs for buyers. Consequently, there is an urgent need for a streamlined solution that can enhance the trading experience for all parties involved in the local rice and bean market.

APPROACH

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The Local Trading Support System for rice and beans provides a comprehensive platform tailored to meet the diverse needs of traders, sellers, and buyers [1]. For traders, the system facilitates the effective management and oversight of the agricultural market, allowing them to monitor trends and accurately categorize products. Real-time data on product availability and pricing empowers traders to make informed decisions, optimizing their operations and maximizing profits. This transparency fosters trust in the marketplace, ensuring that all stakeholders have reliable information at their fingertips [2].

For buyers, the system offers a user-friendly platform to access a wide range of high-quality agricultural products. Customers can easily browse product listings, compare prices, and make informed purchasing decisions. Features such as real-time updates on availability and prices, alongside secure payment options, create a seamless shopping experience. The platform also includes product reviews and ratings, promoting an environment of transparency and trust in the marketplace, which ultimately encourages more direct purchases from local farmers.

Sellers benefit from a streamlined interface that simplifies the process of listing and promoting their products. Farmers can manage inventory, update product details, and track sales with ease, thereby reducing administrative burdens. By connecting directly with buyers and traders, sellers can bypass intermediaries, leading to better pricing and more transparent transactions. This support for local trade not only enhances the visibility of farmers' products but also contributes to sustainable agricultural practices by minimizing the environmental impact associated with longer supply chains [3].

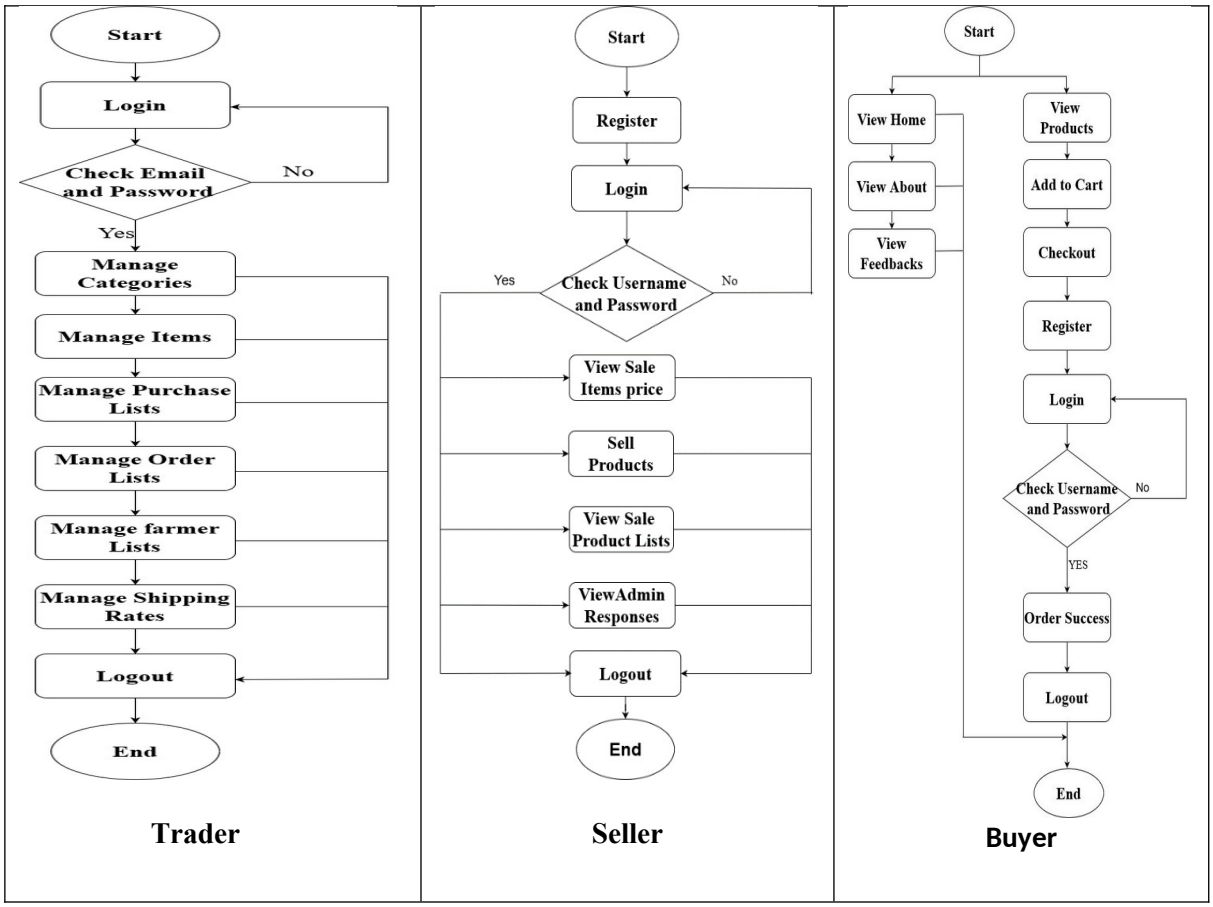

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Figure 1: System Flow Diagram

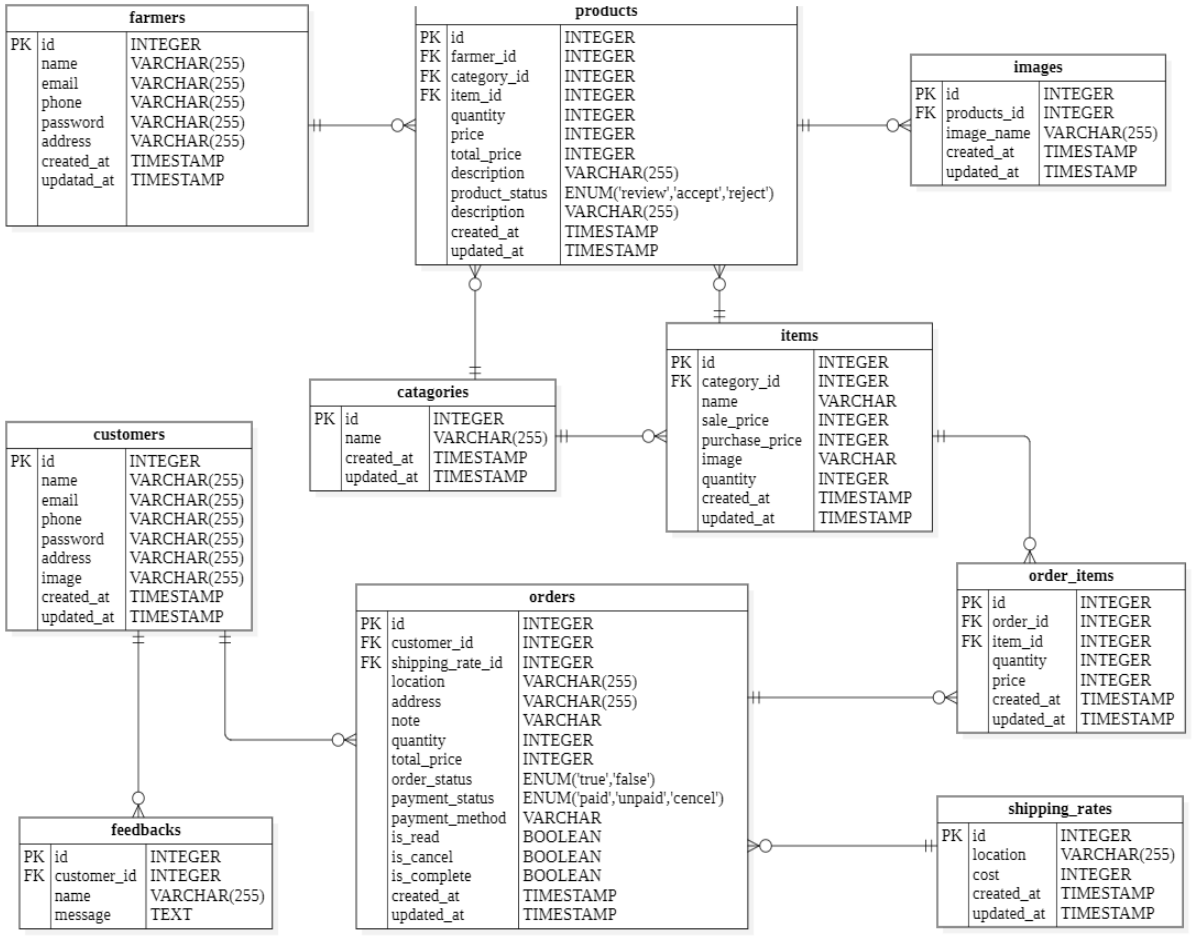

Figure 2: Database Design

An Entity Relationship Diagram (ERD) employs data modeling techniques to define business processes and serves as the foundation for a relational database. ERD attributes are denoted as primary keys, which identify unique attributes, and foreign keys, which can be assigned to multiple attributes. Cardinality notation defines the attributes of the relationships between entities. In our database, there are ten data tables for the Local Trading Support System, including customers, farmers, products, images, categories, items, feedback, orders, order items, and shipping rates. Figure 2 illustrates the database design, showcasing the relationships among these tables.

RESULTS

The implementation of the Local Trading Support System for rice and beans has significantly enhanced market efficiency and transparency. By directly connecting farmers, traders, and buyers, the system has reduced reliance on intermediaries, thereby increasing profitability for sellers and lowering costs for buyers. Stakeholders have reported improved access to vital market information, leading to better decision-making and optimized trading practices. The user-friendly interface of the system has also encouraged more direct purchasing, fostering a more engaged and informed community around local agriculture.

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Figure 3: Implementation of this system

CONCLUSION

In conclusion, the Local Trading Support System for rice and beans offers a powerful solution to streamline agricultural transactions and enhance market efficiency. By providing a centralized platform that connects farmers, traders, and customers, the system reduces intermediaries, increases transparency and supports the sustainable growth of local agriculture. Its robust design ensures accurate data management, facilitates seamless interactions, and adapts to the evolving needs of the agricultural market. Ultimately, this system empowers stakeholders, fosters economic development, and contributes to the resilience and sustainability of local agricultural practices.

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