

Farmer Trader Interaction Application

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ARTICLE INFO

Article History:

Accepted: 05 May 2023

Published: 16 May 2023

Publication Issue

Volume 10, Issue 3

May-June-2023

Page Number

169-173

ABSTRACT

A Farmer Trader Interaction Application product is an android application where users can purchase and order vegetables, fruits, seeds, in android application. The system is developed with a user-friendly and attractive GUI. It delivers a wide range of groceries available online. Farmer have to login into the system to add available products to the dashboard for user view. Users or traders have to first login into the system to view the items and add them into their cart. And we can add the order it by making a payment via COD (cash on delivery). The system functionality of products and orders is stored on server side in a web service. The android app is for client usage. It consists of client side scripting for placing orders by connecting to the server side web service.

Keywords: Farmer-Trader Interaction, Android, Communication, Order Management, Negotiation

I. INTRODUCTION

In today's world, farmers face enormous challenges when it comes to connecting with potential buyers for their agricultural products produced. Similarly, traders struggle to find reliable sources for high-quality product at fair prices. Farmer Trader Interaction Application addresses these issues head-on, revolutionizing the way farmers and traders interact and develop their business.

With Farmer Trader Interaction Application, farmers gain direct access to a wide network of traders, unlocking extraordinary opportunities for market

expansion. Our user-friendly interface allows farmers to showcase their produce, detailing essential information such as quantity, quality, location, and pricing. By this app, farmers have full control over their pricing and negotiations, maximizing their profits and ensuring fair returns for their hard work.

For traders, Farmer Trader Interaction Application presents a comprehensive database of diverse agricultural products from a wide range of farmers. Our advanced search and filtering tools enable traders to easily locate specific crops or produce types, narrowing down their search based on their requirements. Real-time notifications keep traders

updated on new listings and time-sensitive opportunities, ensuring they never miss out on potential business prospects.

Farmer Trader Interaction Application enables direct communication between farmers and traders, facilitating transparent discussions, negotiation of terms, and efficient coordination for purchase and delivery. Our platform also supports features such as ratings and reviews, enabling users to establish trust and reputation within the Farmer-Trader community. Farmer Trader Interaction Application empowers both farmers and traders to establish direct relationships, fostering a more transparent, fair, and sustainable agricultural market. Together, we can revolutionize the way farmers and traders interact, unlocking a world of opportunities for growth and prosperity.

II. PROPOSED SYSTEM

By considering the problems we developed a Farmer Trader Interaction application. By this application we can directly console with farmer and user. The system functionality of products and orders is stored on server side in a web service. The android app is for client usage. It consists of client side scripting for placing orders by connecting to the server side web service.

Here, farmer and trader both have to register their user profile with basic details. Then, login with the correct username and password. As a farmer, can add available products to their dashboard along with product details. A trader can view the available products and order the products and negotiate with the farmer about the pricing.

In this application, a farmer group option is available in which a list of farmers details will be shown and list will be based on products searched. i.e., A group of farmers will be shown who are all updating a same product in their dashboard. With the availability of a group of farmers for a product, Trader can choose a farmer from whom a he can buy his product after

several negotiations. A trader can view availability of farmers within a range in map by clicking View in map option.

Farmers can create listings for their available products, including details like product name, quantity, quality parameters, pricing, and delivery options. Traders can search and browse through product listings based on specific criteria such as product type, location, and quality. Farmers and traders can negotiate prices, discuss product details, and address any queries or concerns.

III. EXPERIMENTAL SETUP

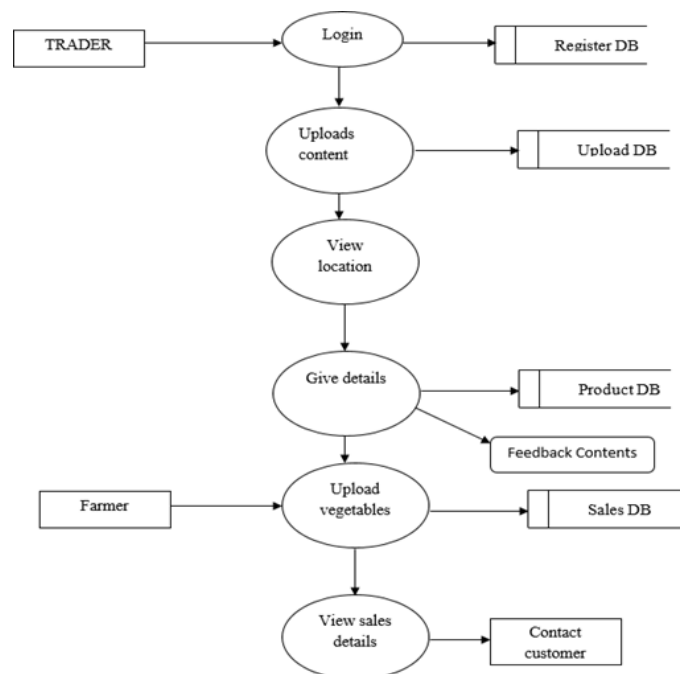


Figure 1. Block diagram

IV. MODULES & DESCRIPTION

1. Farmer Trader User Interface

This module will help user to generate new User Name according to their wish and user will also create new password and same will be confirmed again. To register for Game, it is first necessary to complete a basic registration form, available on the front page of the app. The following details need to be entered; Username, Password, Full Name, Role, Email Address and Mobile number. When the form is completed, the

user gets a success message for registration. When the registration is confirmed, a user can login and use this application features.

Then, data sets are provided in the cloud in secure manner using email and password. Database operations such as insert, update and delete are performed on them. In the second step the data sets are increased and the database operations are performed again to check the feasibility of the real time cloud database. The data cannot be inserted unless a valid email and password using the application.

2. Location

The location module is used to identify the geographical location of the user using the network provider or using the GPS. The datasets are again modified and stored respectively with the location attribute. The location acts a means for grouping the farmers along with the crop. The location can be changed when the user moves to a new place.

3. Farmer Grouping

Once the required attributes like crop details and the locations are provided, the datasets are grouped based on the respective crops and location. The farmers with similar production of crops and within the same region are grouped.

4. Farmer-Trader interaction

Once the farmers are in a group they can communicate with the merchants available in the location. Similar to the farmers the merchants can create an account and they are also grouped according to the location. They both can interact each other with the phone numbers.

V. ADVANTAGES

The Farmer Trader Interaction Application has several advantages.

1. Advantages for Farmers:

- **Increased Market Access:** Farmers gain access to a vast network of potential buyers, expanding their market reach.
- **Maximum Control:** Farmers have control over pricing and negotiations, ensuring fair returns for their produce.
- **Efficient Communication:** Direct messaging enables transparent discussions and efficient coordination for purchase and delivery.
- **Elimination of Middlemen:** By connecting directly with traders, farmers can bypass intermediaries and retain control over their pricing and negotiations.
- **Increased Efficiency in Sales:** This app streamlines the sales process for farmers. They can create detailed product listings, including quantities available, pricing, and location.

2. Advantages for Traders:

- **Diverse Product Database:** Traders have access to a wide range of agricultural products from various farmers.
- **Advanced Search:** Advanced search and filtering tools enable quick and targeted sourcing of specific crops or produce.
- **Increased Efficiency:** They can easily browse through a diverse product database, saving time and effort in finding the specific crops or produce they require.
- **Expanded Sourcing Options:** Traders gain access to a wide range of agricultural products from different farmers.
- **Establishing Direct Relationships:** By connecting directly with farmers, traders can build long-term relationships based on trust and mutual understanding.
- **Time Saving:** Trader can purchase farmers products through them mobile phones that support android. Trader does not have to wait in long queue and does not have to struggle with fake price.

VI. APPLICATIONS

- In real time situations like crop surpluses or shortages, this app will help farmers to quickly find the potential buyers.
- In situations like weather related damages or disease outbreaks, the farmer trader interaction app will help in emergency sales.
- In a situation when a trader is in need of bulk quantity of products, they no need to go live for price negotiation and checking for the availability of required quantity. They can simply go through this application and make a connect with many farmers and negotiate for price and availability of the required product.
- In collaborative farming, several farmers come together to cultivate a single piece of land. A real time communication and coordination.

VII. FEASIBILITY ANALYSIS

The feasibility of the project is analyzed in this phase and business proposal is put forth with a very general plan for the project and some cost estimates. During system analysis the feasibility study of the proposed system is to be carried out. This is to ensure that the proposed system is not a burden to the company. For feasibility analysis, some understanding of the major requirements for the system is essential.

Three key considerations involved in the feasibility analysis are

- ◆ TECHNICAL FEASIBILITY
- ◆ SOCIAL FEASIBILITY
- ◆ ECONOMICAL FEASIBILITY
- ◆ SOCIAL FEASIBILITY
- ◆ CONCLUSION

In conclusion, the farmer-trader app offers significant benefits and opportunities for enhancing agricultural trade and interactions between farmers and traders. The app's real-time features enable efficient communication, timely decision-making, and

seamless business opportunities, resulting in improved productivity, transparency, and profitability in the agricultural supply chain. By facilitating direct connections, eliminating intermediaries, and providing up-to-date information on product availability, pricing, and market trends, the app empowers farmers and traders to make informed decisions, optimize their operations, and respond quickly to market demands. Furthermore, the app promotes trust, traceability, and sustainability in agricultural trade, fostering a sense of community and collaboration among users. Overall, the farmer-trader app has the potential to revolutionize the way farmers and traders interact, creating a more efficient, transparent, and inclusive agricultural ecosystem.

Through the app, farmers gain a powerful platform to showcase their products in real-time, reaching a broader market and increasing their chances of sales. The ability to update product listings instantly allows farmers to provide accurate and up-to-date information on product availability, quality, and pricing. Farmers can promptly address inquiries, negotiate prices, and establish mutually beneficial agreements with traders. Likewise, traders can quickly communicate their requirements, place orders, and coordinate logistics with farmers.

Grouping farmers based on a criteria and providing a platform for them to communicate and share their opinions is a challenging task when the geographical area gets diverse. Challenge is how to develop an application that enables the farmers to join a group and provide a platform for them to share their opinions and trade and product related information. Such large data must to be stored on to the cloud and all database operations must be performed efficiently, considering the fact that the database is be a real time database.

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