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# Harvest Hub Farmers E-Commerce Mobile Application

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**ABSTRACT:** Agriculture, as the backbone of our societies, plays a pivotal role in sustaining livelihoods and feeding the growing global population. To empower farmers with technology, facilitate market access, and address linguistic barriers, we introduce the "Harvest Hub" Farmer's E-Commerce Application. This application, crafted in local languages, serves as a comprehensive platform for farmers to buy and sell a diverse range of agricultural products, including fruits, vegetables, seeds, and fertilizers. The overarching goal of Harvest Hub is to enhance market accessibility, break language barriers, and set the stage for future advancements in agricultural technology, particularly in the realm of plant disease prediction.

**KEYWORDS:** Farmers, E-Commerce, Technology, Agriculture, Crop, Yield, Language, Market, Income.

## I. INTRODUCTION

This research endeavours to introduce and explore the development of a Farmer's E-Commerce Application, a technological innovation aimed at transforming the agricultural landscape. The proposed application is strategically designed to facilitate the seamless buying and selling of essential agricultural commodities, including fruits, vegetables, seeds, and fertilizers, directly benefiting farmers. An innovative aspect of this project lies in the application's integration of native language functionality, a deliberate measure to enhance accessibility and ease of use for farmers who may face language barriers or have limited familiarity with conventional technology.

Agriculture, being the backbone of economies and a primary source of sustenance, demands solutions that address the unique challenges faced by farmers. Market access, especially for smaller-scale agricultural producers, can be constrained by geographical factors and traditional supply chain inefficiencies. Moreover, the digital divide prevalent in rural areas further complicates matters, necessitating a tailored approach to technology adoption.

The Farmer's E-Commerce Application, henceforth referred to as "Harvest Hub," emerges as a response to these challenges. The application is envisioned as a comprehensive platform, encompassing the trading of perishable goods such as fruits and vegetables, the exchange of high-quality seeds, and the procurement of fertilizers. Beyond its commercial aspects, Harvest Hub aims to bridge the technological gap by incorporating an interface designed in the native language of the farmers it serves within the advanced agricultural sector.

## II. RELATED WORK

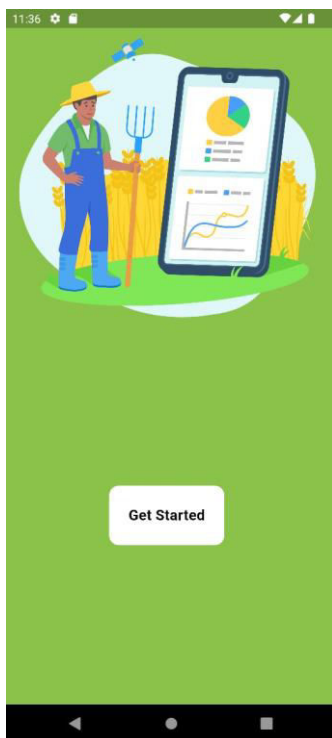
The first-ever farmers' e-commerce application launched in India was "e-Choupal." Developed by ITC Limited in 2000, e-Choupal was designed to empower Indian farmers by providing them with access to information and direct market access. e-Choupal provides farmers with access to agricultural best practices, weather forecasts, and market prices through internet kiosks located in villages. Farmers receive specific information relevant to their crop cycles and local conditions. By connecting farmers directly with buyers, e-Choupal reduces the number of intermediaries, ensuring better prices for their produce. Farmers can learn about the quality requirements and grading standards, helping them to produce and sell higher quality crops. Farmers can aggregate their produce to meet the demands of bulk buyers. e-Choupal integrates various components of the supply chain, making the procurement process more efficient.

### III. METHODOLOGY

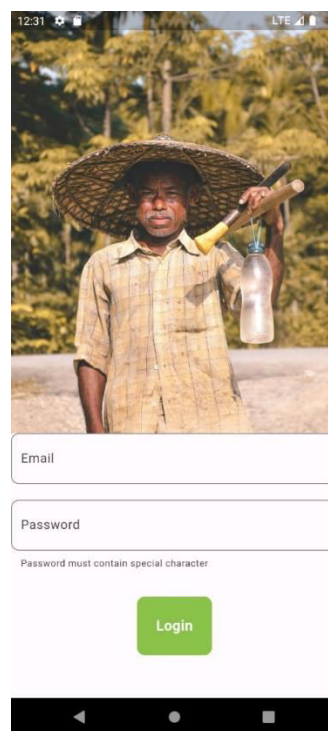
To develop an e-commerce application for farmers, begin with a needs assessment through field research and stakeholder interviews to understand farmers' requirements and challenges. Design a user-friendly interface with local language support and easy navigation tailored to low-tech users. Integrate features such as real-time market prices, weather updates, and best practices for farming. Enable direct transactions between farmers and buyers, ensuring transparent pricing and eliminating intermediaries. Implement secure payment gateways and logistics support for seamless delivery. Finally, conduct pilot testing with a small group of farmers, gather feedback, and iterate the design to address any issues before a wider rollout.

### IV. EXPERIMENTAL RESULTS

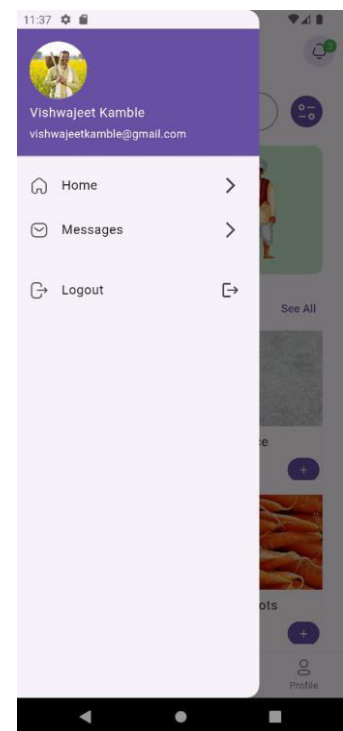
Figures shows the results of the Farmers E- Commerce application from its landing page to



**i) Landing Page of the application**

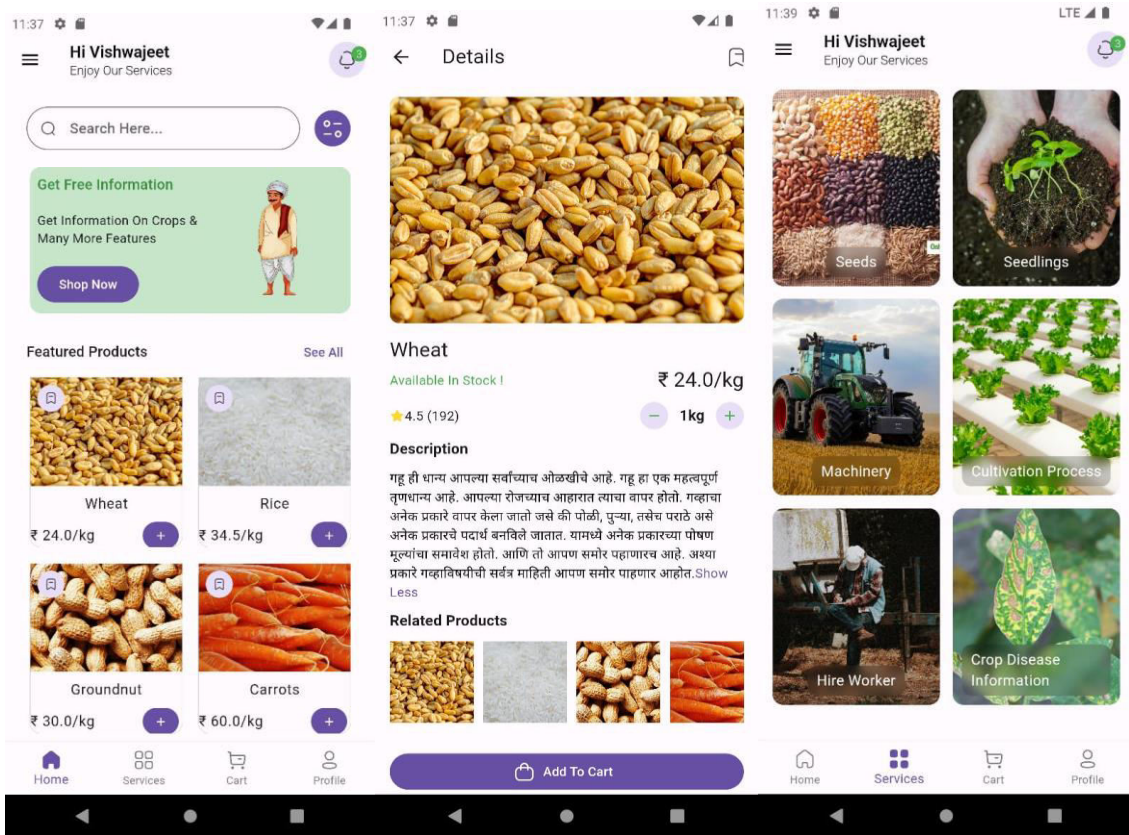


**ii) Login Page**



**iii) User Profile Page**

- i. The Landing page is the first page displayed on the screen once the application is opened.
- ii. The Login Page is displayed once the "Get Started" button is clicked, in this page the user can enter the login credentials (email id and password) to login to the account.
- iii. The User Profile page shows the information about the owner of the account.



iv) Home Page

v) Information about the stock

vi) Services Page

- On the Home Page the various crops/ products to be sold/ purchased are displayed.
- On Clicking on one of the products the information about the product is displayed in local language.
- On the Services page the services provided by the application are provided.

## V. CONCLUSION

The “HARVEST HUB E-COMMERCE APPLICATION” project successfully developed a mobile application that addresses the multifaceted needs of farmers. By integrating E-Commerce, local language support, and a crop recommendation system, the application has the potential to revolutionize the agricultural landscape. It has already demonstrated significant benefits in terms of improved market access, reduced language barriers, and data-driven crop choices. The project team will continue to enhance and expand the application to further empower farmers in their agricultural pursuits. The proposed mobile application has the potential to make a significant difference in the lives of farmers in developing countries. By providing farmers with access to information, advice, and new technologies, the application can help them to improve their yields and incomes.

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