

CSE306: Software Engineering and Information System Design Lab

PREPARE SOFTWARE REQUIREMENT SPECIFICATION (SRS)

DOCUMENT

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DOCUMENTATION

Abstract:

This documentation outlines the development and implementation of a Harvesting Farmer Network application. The application aims to address key challenges in the agricultural sector by creating a digital platform that facilitates efficient communication and collaboration among farmers involved in harvesting activities.

Introduction:

In the heart of the world's largest and oldest industry, Agriculture, the Harvesting Farmers Network (HFN) is pioneering a transformative initiative through the development of a cutting-edge technology and data-driven Intelligence engine. This engine is poised to revolutionize the agricultural landscape, bringing forth unprecedented speed, accuracy, and transparency to benefit the lives of farmers globally. At the core of HFN's mission lies a commitment to directly connect with farmers, both digitally and on-ground, fostering a seamless exchange of information. This strategic engagement empowers farmers with access to expert advisory services, ensures the availability of high-quality and affordable inputs, and establishes a mechanism for fair and better pricing for their agricultural produce.

Problem Statement:

In the world of agriculture, there's a pressing issue: farmers lack a streamlined way to coordinate and communicate during harvesting activities. The absence of real-time information exchange is causing inefficiencies, delays, and less-than-optimal use of resources. This communication gap is hindering the agricultural process, impacting productivity, and creating challenges for farmers to work together seamlessly. Addressing this problem is crucial for enhancing the overall efficiency and effectiveness of harvesting practices in the agricultural sector.

Background:

Traditional farming practices suffer from a lack of real-time communication and coordination during harvesting activities. This limitation hampers efficiency, leading to

delays and suboptimal resource utilization for farmers. The absence of immediate information exchange creates challenges in adapting to dynamic conditions, impacting overall productivity. Recognizing this, the Harvesting Farmers Network (HFN) seeks to address these issues by leveraging technology to enhance communication and collaboration among farmers. The need for a more efficient and connected agricultural ecosystem is evident, marking a pivotal moment for transformative change.

Benefit of application:

1.Target local audience:

- Alignment with Agriculture: By targeting local farmers, the application can cater specifically to the agricultural community involved in harvesting activities. This ensures that the features and services provided are tailored to the unique needs of farmers.

2.Provide personalized and loyal service:

- Alignment with Agriculture: The application can offer personalized features that cater to the specific requirements of farmers during harvesting seasons. This personalized approach fosters loyalty among users, as they experience a tailored solution that directly addresses their challenges.

3.More flexible:

- Alignment with Agriculture: The flexibility of the application can be leveraged to accommodate the dynamic nature of agricultural activities. Farmers can adapt the use of the application based on real-time needs during the harvesting process, allowing for efficient and adaptable coordination.

4.Build Network between customer and professionals:

- Alignment with Agriculture: The application can serve as a platform for farmers to connect with each other and with agricultural professionals such as agronomists, equipment providers, or logistics experts. This networking capability facilitates better collaboration and resource sharing during harvesting activities.

5.Save time, no need to go outside to find professionals.:

- Alignment with Agriculture: Farmers often face time constraints during harvesting. The application addresses this by eliminating the need for farmers to physically search for professionals or services. Instead, they can efficiently find and engage with relevant professionals through the application, saving valuable time during the critical harvesting period.

- 6. Real-time Information Exchange:
The application facilitates real-time communication, addressing the communication gap and ensuring that farmers can exchange crucial information instantly.
- 7. Enhanced Coordination:
By offering a flexible and personalized service, the application helps in coordinating activities among farmers and professionals, leading to improved efficiency and optimal resource utilization.
- 8. Seamless Collaboration:
The networking aspect of the application fosters collaboration among farmers and professionals, creating a cohesive community that can work together seamlessly during the harvesting season.

****Key Benefits of HFN Application:****

1. **Efficiency:** Streamlines farming for quicker decisions.
2. **Precision:** Accurate insights on weather and markets.
3. **Transparency:** Direct and open farmer communication.
4. **Expert Guidance:** Access to knowledgeable advice.
5. **Affordable Inputs:** High-quality, cost-effective resources.
6. **Fair Pricing:** Establishes equitable market prices.
7. **Financial Inclusion:** Empowers farmers economically.
8. **Sustainability:** Promotes eco-friendly farming practices.
9. **Community Support:** Fosters collaboration and resource-sharing.
10. **Global Impact:** Sets a model for global agricultural enhancement.

HFN transforms agriculture by boosting efficiency, transparency, and sustainability while economically empowering farmers.

Objective:

The primary objective of this application is to create a user-friendly platform that connects farmers involved in harvesting activities, enabling them to share real-time information, resources, and best practices.

Features of application:

<u>Se No.</u>	<u>Customer</u>	<u>Professionals</u>
1.	Registration/Login	Login/Registration
2.	Equipment Sharing and Rental Marketplace	Equipment Sharing and Rental Marketplace
3.	Inventory Management	Inventory Management
4.	Training and Educational Resources	Feedback and Review System
5.	Payment History	Show Work History
6.	Task and Calendar Management:	Task and Calendar Management:
7.	Data Security and Safety	Data Security and Safety
8.	Design User Friendly UI/UX Interface	Real-time Communication
9.	Use Advanced Search Filter	Use Advanced Search Filter
10.	<u>Real-time Communication</u>	Show Work History & Payment History
11.	Provide Multiple Payment Options	Keep GPS Location Tracking

Purpose:

The purpose of the Harvesting Farmer Network application is to streamline the harvesting process, reduce operational inefficiencies, and foster a sense of community among farmers. The application serves as a digital bridge, connecting farmers and promoting collaboration.

