

# **Software Requirements Specification**

## **Farmlink**

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Revision History

Name	Date	Reason For Changes	Version

# **1. Introduction**

## **1.1. Purpose**

The purpose of this document is to provide a list of software requirements for the development of the "FarmLink" app, an agricultural platform that connects farmers with suppliers and consumers to enhance the efficiency, productivity and sustainability of farming operations.

## **1.2. Intended Audience and Reading Suggestions**

This document is intended for project managers, developers, testers and stakeholders involved in the app development. It should be read in the context of comprehending the features, limitations, and functionality of the app.

## **1.3. Product Scope**

The "FarmLink" app's scope encompasses user registration, crop management, communication between farmers, suppliers, and consumers. It serves as a bridge among farmers and others like consumers and suppliers so that farmers can get their proper prices for their products as well as sell their produced crops at a fair price. For the consumers, they get the chance to buy fresh farm products from farmers directly at a reasonable price. Moreover the suppliers can advertise their products like seeds, pesticides, insecticides and set a reasonable price for the farmers.

## **1.4. References**

- a. [https://agrimart.in/index.php/home/about\\_us](https://agrimart.in/index.php/home/about_us)
- b. <https://www.cropin.com/about>

# **2. Overall Description**

## **2.1. Product Perspective**

The "FarmLink" app exists within the larger context of the agricultural ecosystem. It connects farmers, suppliers, and consumers, streamlining the process of agricultural inputs supply and crop sales.

## **2.2. Product Functions**

- User (farmers, suppliers, consumer) registration and authentication
- Farmer and supplier profile management
- Agricultural inputs listing and management

- Agricultural inputs search and browsing
- Agricultural inputs purchase and sales
- Crop listing and management
- Crop search and browsing
- Crop purchase and sales
- Messaging and notifications
- Admin panel for app management

### **2.3. User Classes and Characteristics**

- Farmers: Registered users who list and manage crops.
- Suppliers: Registered users who supply agricultural inputs.
- Consumers: Registered users who purchase crops.
- Admins: App administrators responsible for managing users and content.

### **2.4. Operating Environment**

The app is designed for both Android and iOS platforms, ensuring that any mobile device with internet connection can use it.

### **2.5. Design and Implementation Constraints**

- The project must adhere to a defined budget and timeframe.
- The app will be developed using a specific technology stack (Figma).
- Third-party APIs may be used for functionalities like payment processing.

### **2.6. User Documentation**

User documentation, including user manuals and help guides, will be provided to ensure users can effectively navigate and use the app.

### **2.7. Assumptions and Dependencies**

Assumptions include reasonable user behavior, system availability, and data accuracy. Dependencies may include external APIs for weather information and internet connectivity.

## **3. External Interface Requirements**

### **3.1. Farmers Interfaces**

- Registration and profile management screens.
- Crop listing and management screens.
- Product browsing and purchasing interfaces.
- Messaging and notifications interfaces.

### **3.2. Suppliers Interfaces**

- Registration and profile management screens.
- Product listing and management interfaces.
- Messaging and notifications interfaces.

### **3.3. Consumers Interfaces**

- Registration and profile management screens.
- Crop browsing and purchasing interfaces.
- Messaging and notifications interfaces.

### **3.4. Admins Interfaces**

- User management screens.
- Content moderation tools.

## **4. System Features**

### **4.1. System Features 1**

#### **4.1.1. User Registration and Authentication**

- User registration with options for email or phone number.
- Secure user authentication.

#### **4.1.2. Farmer and Supplier Profile Management**

- Profile creation and Profile management.
- Update and edit personal and farm information.

#### **4.1.3. Agricultural Inputs Listing and Management**

- Suppliers can list Agricultural inputs, including type, quantity, pricing, and images.
- Inputs editing and removal functionalities.

#### **4.1.4. Agricultural Inputs Search and Browsing**

- Farmers can search, filter, and browse Agricultural Inputs listings based on various criteria.

#### **4.1.5. Agricultural Inputs Purchase and Sales**

- Farmers can purchase Agricultural Inputs
- Suppliers can confirm and manage sales.

#### **4.1.6. Crop Listing and Management**

- Farmers can list crops, including crop type, quantity, pricing, and images.
- Crop editing and removal functionalities.

#### **4.1.7. Crop Search and Browsing**

- Users can search, filter, and browse crop listings based on various criteria.

#### **4.1.8. Crop Purchase and Sales**

- Consumers can purchase crops; Farmers can confirm and manage sales.

#### **4.1.9. Messaging and Notifications**

- In-app messaging for user communication.
- Notifications for new listings, inquiries, and updates.

#### **4.1.10. Admin Panel for App Management**

- Functions and permissions for app administrators, including user management and content moderation.

## **5. Other Nonfunctional Requirements**

### **5.1. Performance Requirements**

- There must be a specific timeframe to provide the responses.
- High possibilities of availability of services when needed and minimal downtime are required.

### **5.2. Safety Requirements**

- Personal information of users' needs to be kept secure; that's how the user's privacy must be ensured.
- A set of rules and requirements must be followed by the users and defined as well as monitored by the admins.

### **5.3. Security Requirements**

- Any kind of information of users must be encrypted and protected.
- Authentication process must be checked by the admins.



## 6. Other Requirements

### Appendix A: Class Diagram

