

# Software Requirements Specification for ”GREENHIRES”

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## 1 Introduction

### 1.1 Purpose

“GREENHIRES” is a mobile application designed to connect landlords who have land but do not wish to farm, with laborers who wish to farm but lack land. The app aims to bridge the gap between landlords and laborers, providing a platform for them to connect, collaborate, and find job opportunities. Additionally, the app facilitates the sale of agricultural products and crops to large merchants and companies that use agricultural materials for their products.

### 1.2 Project Scope

The Indian economy heavily relies on agriculture. However, many wealthy landlords are unwilling to farm, while those willing to farm often lack land and financial resources, leaving them to work on others’ lands. “GREENHIRES” offers a platform where landlords and laborers can connect. The app ensures transparency in buying and selling crops by enabling digital transactions between landlords, laborers, and large merchants or companies. Moreover, “GREENHIRES” helps farmers access agricultural supplies and knowledge about modern farming techniques, promoting organic and scientific farming practices.

## 2 Overall Description

### 2.1 Product Features

- Connection between landlords and laborers.
- Platform for farmers to sell crops and for merchants or companies to purchase them.
- Digital marketplace for agricultural Goods.

## 2.2 User Classes and Characteristics

- **Landlords:** Users who own land but do not wish to farm.
- **Laborers:** Users who want to farm but lack land.
- **Merchants:** Buyers of agricultural products.
- **Companies:** Large-scale buyers of agricultural materials.

## 2.3 Operating Environment

The application will run on Android and iOS platforms and require an internet connection.

## 2.4 Design and Implementation Constraints

- Compliance with state APMC regulations.
- Secure handling of financial transactions.

## 2.5 Assumptions and Dependencies

- Users have access to smartphones and the internet.
- Integration with existing market databases.

# 3 Specific Requirements

## 3.1 Farmer Module

- **Input:** Personal and farm details for registration.
- **Output:** Successful registration, ability to list products, and view offers from dealers.
- **Functional Requirements:**
  - Registration: Farmers can register with personal and farm details.
  - List Goods: Farmers can list their products with quality specifications.
  - View Offers: Farmers can see offers from dealers and accept them.

### 3.2 Dealer Module

- **Input:** Business details for registration.
- **Output:** Successful registration, ability to browse and purchase goods from farmers.
- **Functional Requirements:**
  - Registration: Dealers register with business details.
  - Browse Goods: Dealers can view and search for available goods.
  - Purchase: Dealers can buy goods from farmers.

### 3.3 Industry/Company Module

- **Input:** Corporate details for registration.
- **Output:** Successful registration, ability to browse dealer listings and make bulk purchases.
- **Functional Requirements:**
  - Registration: Companies register with corporate details.
  - Browse and Purchase: Companies can browse dealer listings and make bulk purchases.

### 3.4 Landlord Module

- **Input:** Job listings and applications for farming work.
- **Output:** Successful job postings and applications.
- **Functional Requirements:**
  - Hire Farmers: Landlords can post job listings for farming work.
  - Apply for Jobs: Farmers can apply to job listings.

### 3.5 Non-Functional Requirements

- **Performance Requirements**
  - The app should handle up to 10,000 concurrent users.
- **Safety Requirements**
  - Secure user authentication and data encryption.
- **Security Requirements**
  - Compliance with data protection regulations.

- Secure financial transactions.
- **Software Quality Attributes**
  - User-friendly interface.
  - High availability and reliability.

## 4 External Interface Requirements

### 4.1 User Interfaces

- Intuitive navigation and layout for all user modules.

### 4.2 Hardware Interfaces

- Compatibility with standard smartphones and tablets.

### 4.3 Software Interfaces

- Integration with existing market information systems.

### 4.4 Communication Interfaces

- Secure internet communication protocols (HTTPS).

### 4.5 Other Requirements

- Regular updates and maintenance.
- Multilingual support for various regional languages.

## 5 Functional Requirements

- **Input:** User details for login and registration.
- **Output:** Access to respective user functionalities.
- **Requirements:**
  - Login and Sign-Up: All users must register and log in.
  - Account Registration: Separate registration processes for landlords, laborers, merchants, companies, and agro sellers.
  - Location-Based Matching: Laborers and landlords can find each other based on location and expertise.
  - Digital Marketplace: Users can buy and sell agricultural Goods on-line.

- Transaction Transparency: Ensures transparent transactions between farmers, landlords, merchants, and companies.
- Experience Sharing: Users can share their farming experiences and rate each other.

## 6 Non-Functional Requirements

- **Input:** Search queries, profile views, and payment options.
- **Output:** Relevant search results, user profiles, and transaction confirmations.
- **Requirements:**
  - Profile Visibility: Users can view profiles of landlords, laborers/farmers, merchants, and companies.
  - Search Functionality: Users can search for other users or products based on location.
  - Payment Options: Users can buy agricultural materials using cash or online payments.