

# Requirement Gathering

## Project Overview

Enchanted Eden is a multi-functional plant nursery web application designed to digitalize the traditional nursery experience. The platform aims to provide users with a seamless gardening and shopping experience by integrating e-commerce, expert consultation, AI-powered plant health diagnostics, and real-time tracking of orders. The system enhances user engagement by offering interactive features like live Q&A sessions, AR-based plant placement visualization, and GPS-enabled order tracking.

## System Scope

The application will provide a full-scale, accessible online platform for nursery products and services, catering to plant enthusiasts, farmers, and agricultural experts. It will facilitate efficient inventory management, expert consultation, and delivery tracking while ensuring user convenience through personalized recommendations and AI-driven plant care assistance.

## Target Audience

1. **User Groups:**
  - Farmers
2. **Stakeholders:**
  - Administrative staff
  - Experts
  - Delivery personnel

## Modules

1. **User Management:**
  - User registration and login
  - Profile management for registered users
2. **Product Catalog Management:**
  - Browse and filter plants using advanced filters (sunlight, water needs, climate, etc.)
  - View product and care information
3. **Order Management:**
  - Purchase plants
  - View and track orders in real-time using GPS integration
  - Confirm deliveries using QR code scanning
4. **Cart Management:**
  - Add products to the cart
  - Review and modify cart contents before purchase
5. **Payment Processing:**
  - Secure online payments
6. **Community Engagement:**

- Leave and react to product reviews and feedback
- Access blog and educational resources
- Participate in discussion forums
- 7. Plant Care:**
  - Monthly registration of plants, including externally purchased plants
  - Submit plant health reports with images for expert feedback
  - Diagnose plant health issues, pests, and diseases using AI tools
  - Visualize plant placement using augmented reality (AR)
- 8. Admin Management:**
  - Inventory, user, and content management
  - Sales and feedback report generation
  - Monitor and update order statuses
  - Schedule live Q&A sessions with experts
  - Assign specialists and manage expert availability
  - Manage farmers
  - Receive restocking alerts
- 9. Inventory Management:**
  - Add, update, and remove products from the catalog
  - Monitor stock levels and inventory
- 10. Delivery Management:**
  - Assignment and tracking of deliveries
  - Status updates by delivery personnel
  - GPS-based route optimization
  - Communication with users for timely delivery
- 11. Machine Learning Tools:**
  - Detect pests and diseases from plant images
  - Plan and design virtual gardens
  - Identify trending products of the season
  - AI-powered chatbot for instant query resolution

## **User Roles**

- 1. Guest Users:**
  - Browse products and view basic information
  - Use simple filters (sunlight, water needs, climate)
  - Register and log in to access additional features
- 2. Registered Users:**
  - Browse and view product details
  - Apply advanced filtering for personalized plant searches
  - Purchase and track orders in real-time
  - Confirm deliveries using QR codes
  - Submit plant health reports for expert feedback
  - Diagnose plant health issues using AI tools
  - Visualize plants in their space using AR

- Engage in live Q&A sessions with gardening experts
  - Read and contribute reviews and feedback
  - Chat or call with gardening experts for advice and support
  - Interact with an AI-powered chatbot
  - Request planting assistance
  - Participate in gardening discussions
3. **Administrative Staff:**
- Manage inventory, user accounts, and planting details
  - Generate reports on sales and customer feedback
  - Monitor and update order statuses
  - Assign orders to delivery personnel
  - Organize and schedule live Q&A sessions with experts
  - Oversee expert availability for chat or call support
  - Moderate reviews and user feedback
4. **Experts:**
- Provide real-time guidance in live Q&A sessions
  - Review and analyze monthly plant health reports
  - Offer personalized plant care advice
  - Create educational content (blogs, tutorials, gardening guides)
  - Engage with users via chat or call for direct consultation
5. **Delivery Personnel:**
- Manage orders and access delivery routes via GPS
  - Confirm deliveries using QR codes
  - Update delivery statuses in real-time

## System Ownership

The system is owned by Vadakkechirayath Nursery and Farms, an organization specializing in plant sales and agricultural services.

## Industry or Domain

Agriculture and eCommerce

## Data Collection Contacts

- **Name:** Mr. George Joseph Vadakkechirayath
- **Role:** Managing Director, Vadakkechirayath Nursery and Farms
- **Qualification:** M.Sc. in Agriculture
- **Background:** Former Principal Agriculture Officer, Kerala; Best Assistant Director of Agriculture, 2015
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## Geotagged Photo

The following photo shows a view of Vadakechirayath Nursery and Farms, where the feasibility study for the Enchanted Eden project was conducted. The photo is geotagged to reflect its location and can help visualize the site in relation to the proposed features of the web application.

