**Software Requirements Specification (SRS) for a system called Krushi Kendra:**

**1. Introduction**

The Krushi Kendra software is designed to facilitate the management of agricultural information and services provided by agricultural centers or "Krushi Kendras." It aims to streamline various processes related to crop management, farmer assistance, and resource allocation. This document outlines the software requirements for the Krushi Kendra system.

**2. Scope**

The Krushi Kendra system will provide the following features:

Farmer registration and profile management.
Crop and land management.
Advisory services and recommendations.
Supply chain management.
Reporting and analytics.

## 3. Functional Requirements

### 3.1 Farmer Registration and Profile Management

Farmers can register with the system by providing their personal information, such as name, contact details, and address.
The system should assign a unique identifier to each farmer upon registration.
Farmers should be able to create and manage their profiles, update their contact information, and view their registration status.

### 3.2 Crop and Land Management

Farmers should be able to register their crops and land details, including crop type, area, soil type, and irrigation methods.
The system should provide features for farmers to update crop information, monitor crop growth stages, and record pest or disease occurrences.
Automated alerts or notifications should be sent to farmers regarding optimal crop care practices, irrigation schedules, or weather-related risks.

### 3.3 Advisory Services and Recommendations

The system should provide agricultural experts with the ability to offer advisory services to registered farmers.

Experts should be able to view farmers' profiles and crop information to provide personalized recommendations and assistance.

Recommendations can include crop selection based on soil conditions, pest management strategies, or optimal fertilizer usage.

### 3.4 Supply Chain Management

The system should allow farmers to record their produce, including crop type, quantity, and quality.

Farmers should be able to track the progress of their produce from the farm to the market or distribution centers.

The system should support inventory management, including stock tracking, quality control, and expiry date management.

### 3.5 Reporting and Analytics

The system should generate reports and analytics based on various parameters, such as crop yield, farmer participation, or market trends.

Reports can include information on crop performance, financial analysis, or resource utilization.

Analytics should provide insights into patterns, trends, and areas for improvement in agricultural practices.

### Business entities involved in the Krushi Kendra system:

User: Represents individuals who interact with the Krushi Kendra system. Users can have different roles such as farmers, agricultural experts, and administrators. They have attributes like User ID, Name, Contact Information, and Role.

Farmer: Represents a farmer who utilizes the Krushi Kendra system. Farmers have attributes such as Farmer ID, Name, Address, Contact Information, and Farm Details.

Crop: Represents different types of crops that farmers cultivate. Crops have attributes like Crop ID, Crop Name, Crop Details, and Recommended Practices.

Land: Represents the land owned or managed by farmers. Land has attributes like Land ID, Land Area, Soil Type, Irrigation Method, and Location.

Advisory: Represents the advisory services provided by agricultural experts. Advisories have attributes like Advisory ID, Title, Description, Recommendations, and Expert Information.

Produce: Represents the agricultural produce generated by farmers. Produce has attributes like Produce ID, Crop Type, Quantity, Quality, and Harvest Information.

Market: Represents the market or distribution centers where agricultural produce is sold or distributed. Markets have attributes like Market ID, Location, Contact Information, and Market Details.

Report: Represents generated reports and analytics related to agricultural practices and performance. Reports have attributes like Report ID, Title, Description, Generated Date, and Analysis Results.

User

User_ID (Primary Key)
Name
Contact_Information
Role
Farmer

Farmer_ID (Primary Key)
User_ID (Foreign Key referencing User table)
Address
Farm_Details
Crop

Crop_ID (Primary Key)
Crop_Name
Crop_Details
Recommended_Practices
Land

Land_ID (Primary Key)
Farmer_ID (Foreign Key referencing Farmer table)
Land_Area
Soil_Type
Irrigation_Method
Location
Advisory

Advisory_ID (Primary Key)
Title
Description
Recommendations
Expert_Information
Produce

Produce_ID (Primary Key)
Farmer_ID (Foreign Key referencing Farmer table)
Crop_ID (Foreign Key referencing Crop table)
Quantity
Quality
Harvest_Information
Market

Market_ID (Primary Key)
Location
Contact_Information
Market_Details
Report

Report_ID (Primary Key)
Title
Description
Generated_Date
Analysis_Results