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

## 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.

## 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.

# Functional Requirements

## 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.

## 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.

## 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.

## 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.

## 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