East West University

CSE 347

Group Project

(Project Proposal)

Course Code and Name:	CSE 347
Semester and Year :	Summer 25
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Smart Agriculture Information System (SAIS) mini project

Objective of the Project

The objective of the project is to develop a **Smart Agriculture Information System (SAIS)** that helps farmers manage crops, track agricultural activities, monitor environmental conditions, and receive actionable alerts. The system will provide a simple, digital platform for farmers to input data, access advice, and improve decision-making in farming operations.

Rationale of the Project

In rural areas, farmers often rely on experience or verbal advice, lacking access to timely data and organized record-keeping. This leads to inefficient crop management and lower yields. The proposed system addresses this gap by providing a centralized, user-friendly platform that empowers farmers with essential tools and information. It also aligns with national goals of digital agriculture and food security.

Stakeholders

- **Farmers** – Main users who input crop and field data.

- **Agricultural Officers** – Advisors who monitor and guide practices.

- **System Administrators** – Manage the platform and data security.

- **NGOs & Government Agencies** – May use the system for monitoring and training.

- **Local Communities** – Indirectly benefit from improved food productivity.

Requirement Collection

Requirements will be gathered through:

- **Interviews with Farmers** – To understand real-world needs and literacy levels.

- **Consultation with Agricultural Experts** – For technical input on soil, weather, and crop management.

- **Surveys and Feedback Forms** – To validate features like alerts, language preference, and mobile usability.

- **Observation of Existing Practices** – To identify pain points in current paper-based or manual systems.

Business Value of the Project

- Increases **agricultural productivity** by helping farmers make data-driven decisions.

- Reduces **crop losses** by issuing early pest/disease alerts.

- Supports **government and NGO monitoring**, improving policy planning.

- Promotes **digital inclusion** and rural development.

- Enables long-term **data collection** for future analytics and AI integration.

Technology Used for Development

- **Frontend**: HTML, CSS, Bootstrap (for responsive UI)

- **Backend**: PHP or Python Flask (to handle logic and database)

- **Database**: MySQL or SQLite (for data storage)

- **Hosting**: XAMPP/Localhost (demo), optionally deployable online

- **Optional**: Google Charts for visual analytics, OpenWeather API for dummy weather data