

**East West University**

**Group Project**

**Project Proposal**

**Smart Agriculture Information System (SAIS)**

**Course Code:** CSE347

**Course Title:** Information System Analysis and Design

**Semester:** Summer 2025

**Instructor:  
Md Sabbir Hossain**  
**Department**: CSE, East West University

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**Date of Announcement**: 17th July, 2025

**Date of Submission**: 24th July, 2025

**Objective of the Project**

The objective of the project is to develop a system 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.

**Economics benefits 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, JavaScript, Bootstrap (for responsive UI)
* **Backend**: PHP or Java (to handle logic and database)
* **Database**: Oracle, MYSQL (for data storage)
* **Hosting**: XAMPP/Localhost (demo), optionally deployable online
* **Optional**: Google Charts for visual analytics, OpenWeather API for dummy weather data