AgriAssist – Your AI Farming Partner

Team CodeSprouts

"Fields of Tech, Seeds of Change"

Bansal Institute of Engineering and Technology, Lucknow

🚜 Problem Statement

- Farmers across India, especially small and marginal ones, face challenges such as crop diseases, unpredictable weather, and limited expert access. They often rely on guesswork, leading to low yield and financial losses. There is a strong need for an AI-based, multilingual, and accessible solution providing accurate crop health insights, farming recommendations, and real-time alerts.

💡 Proposed Solution

- AgriAssist is an AI-powered intelligent farming companion that provides actionable insights using Generative AI and cloud technology. Farmers can upload images of affected crops or soil, and the system — powered by Gemini Vision API — detects diseases, pests, or nutrient deficiencies. It generates simple diagnoses and treatment plans in local languages and offers personalized recommendations on irrigation, fertilizers, and weather precautions.

Tech Stack

- • Gemini Vision + Gemini Pro (AI and language intelligence)
- • Google Cloud Firestore (Data Storage)
- • Flutter/Streamlit (Mobile & Web Interface)
- • Weather and Crop Market APIs (Real-time Insights)

🌱 Expected Impact

- AgriAssist bridges the digital gap in agriculture by delivering expert-level guidance in regional languages. It reduces crop loss, improves yield, and encourages sustainable farming. By transforming smartphones into on-demand agricultural experts, it empowers farmers to make smarter, faster, and more confident decisions.

Team Details

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