TEAM 8 : CROP DISEASE DETECTION PROJECT

Team Members :

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Title of the project :

- Crop Disease Detection.

Why we choose this project:

- Impact on Agriculture: By providing a platform for early disease identification.
- Real-time Web Application: This means users (farmers, agronomists, etc.) can upload images of their crops, and within minutes, they receive feedback on whether a disease is present.
- Accessibility: Platform independent.
- Cost Effective.

Abstract:

The project aims to create a system that helps farmers identify diseases in crops through images. By using machine learning, the platform analyzes pictures of plants to detect potential diseases and provides accurate predictions. The system allows farmers to upload images of their crops, and within seconds, they receive feedback about the

presence of any diseases. This enables early intervention, reducing crop loss and the unnecessary use of pesticides. The project serves as a cost-effective and accessible tool to improve crop health management, ultimately contributing to more sustainable agricultural practices.

Technologys :

1. Bootstrap: A front-end framework for developing responsive, mobile-first web applications.
2. Flask: Flask is used to create a user-friendly interface for farmers, where they can upload crop images and receive disease predictions in real-time.
3. TensorFlow: A powerful open-source machine learning framework used for building and training deep learning models. In this project, TensorFlow is used for image classification, enabling the detection of crop diseases from plant images.
4. Scikit-learn: A Python library that provides simple and efficient tools for data analysis and machine learning. It is used in this project for implementing traditional machine learning algorithms, such as classification models, to complement the deep learning approach.

Process for project:

- Data Collection & Preprocessing
- Model Development
- Web Application Development
- Deployment & Testing

Social impact :

The project empowers farmers to detect crop diseases early, reducing losses and promoting sustainable agricultural practices.

Thankyou