Agriculture – Crop Yield Prediction

## Project Goals:

To determine which crop is best suited for the season based on the live weather forecast, soil data i.e., nutrients, type of soil, etc. and best suitable farming techniques based on the crop, weather, and soil for better yield for the farmer and best quality product for the consumer.

## Deliverables

* A web-based application and an App for it.
* Two different types of setups, i.e., using a local machine and a Cloud-Based Environment.
* A predictive model with the help of Machine learning.
* A plan for the system's evolution based on user feedback and ongoing data analysis.
* Suggestion for future enhancements and scope to work on.
* User manual for the web application and APP.
* Technical documentation of the whole project (codebase, architecture, and explanation of how the system works and is maintained).
* Use of AutoML, MLOPS, and CI/CD in the project wherever necessary.

## Data Required

* Weather Data based on the regions in India.
* Detailed information on Soil data of all the states in India.
* Different types of farming techniques used.

## To-Do list

Gather the required data.

Set up project environment.

Local System.

* Tools used: ………..

Cloud-based environment.

* Tools used: ………..

Set up project repository.

Documentation.

Guide for using Web application and APP.

Flowchart of the whole project

Implementation of AutoML

Implementation of MLOPS

Implementation of CI/CD

Deployment on Local System.

Deployment in a Cloud-Based environment.

To keep the software and dependencies up to date to avoid security vulnerabilities.

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