

Project Design Phase-I

Solution Architecture

Date	19 September 2022
Team ID	PNT2022TMID08595
Project Name	Fertilizer Recommendation System for Disease Prediction
Maximum Marks	4 Marks

Solution Architecture:

The main objective is that the system focuses on recommending the fertilizer for the diseases that affect the agricultural crops. Farmers can upload the images of the crop diseases or affected crops to the system for the disease detection. The system will perform the image pre-processing and tries to detect the image also with the help of trained dataset. It specialises in detecting the plant illness at its earliest. The main architecture used for the image recognition used is the Convolutional Neural Networks (CNN). Using this architecture, it can detect the distinct forms of plant sickness and feature the cap potential to deal with the complicated scenarios. Then the model is trained and tested with the dataset and which recommends the fertilizers to the farmer for curing the disease.

Steps in building the model:

- Image collection
- Image pre-processing
- Dataset testing and training
- Model creation
- Model training
- Prediction of disease using image
- Suggesting fertilizer

Solution Architecture Diagram:

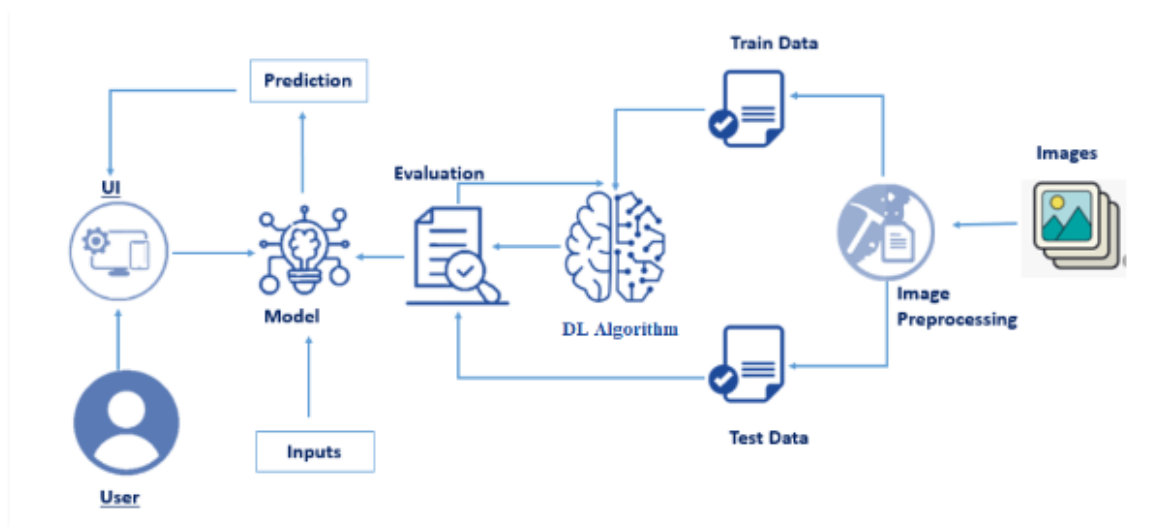


Figure 1: Architecture of the Fertilizer Recommendation System for Disease Prediction