Project Design phase-I
Solution Architecture

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Team ID	PNT2022TMID33287
Project Name	Fertilizers Recommendation System For Disease Prediction
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Solution Architecture:

Solution architecture is a complex process – with many sub-processes – that bridges the gap between business problems and technology solutions.
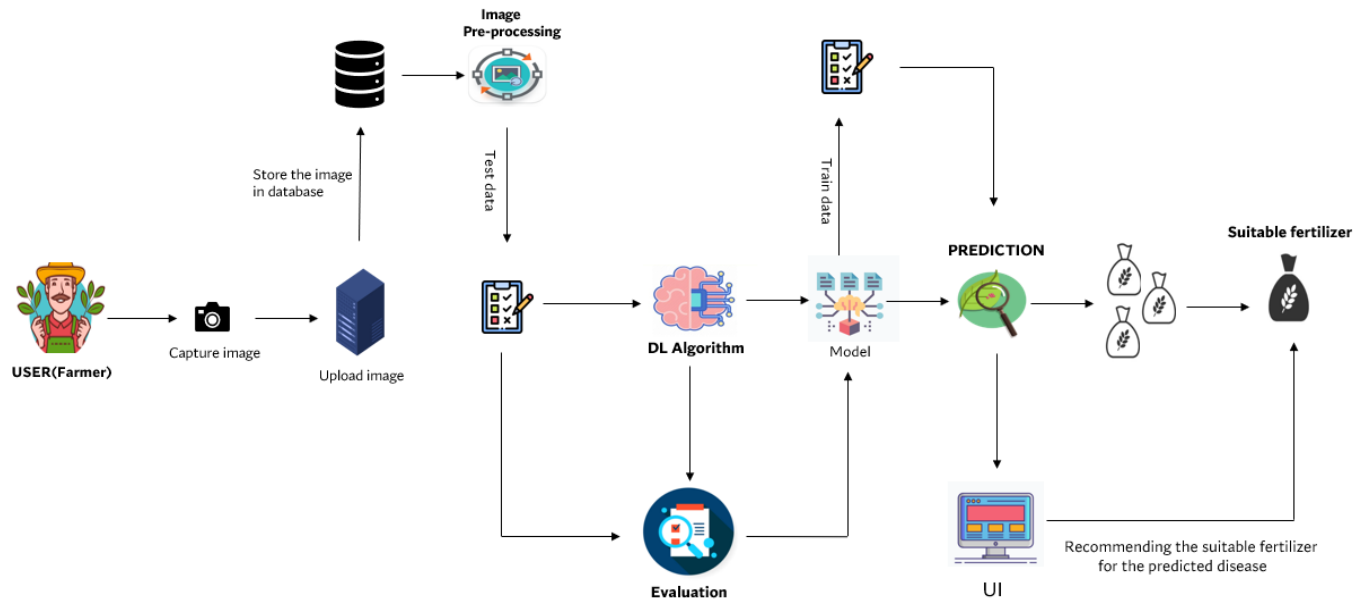
Farmers lack the knowledge of disease and hence they produce less production. Due to the improvement and development in technology our system are smart enough to recognize and detect plant diseases and recommend the suitable fertilizer.

The major steps involved are as follows:
- ✓ Image acquisition
- ✓ Pre-processing
- ✓ Segmentation
- ✓ Disease Prediction
- ✓ Recommend the suitable fertilizer

The images of the diseased plants are obtained and store the images in the database. It is Pre-processed against the dataset of diseased plants. Deep Learning Algorithm is used to process the images and then it is evaluated for the prediction. Then a model is built on the evaluations, it is then trained and prediction of disease is done. The system will automatically recommend the suitable fertilizer for the predicted disease.

Solution Architecture Diagram:

References :

Suma, V., Shetty, R. A., Tated, R. F., Rohan, S., & Pujar, T. S. (2019, June). CNN based leaf disease identification and remedy recommendation system. In *2019 3rd International conference on Electronics, Communication and Aerospace Technology (ICECA)* (pp. 395-399). IEEE.