# PROJECT STRUCTURE

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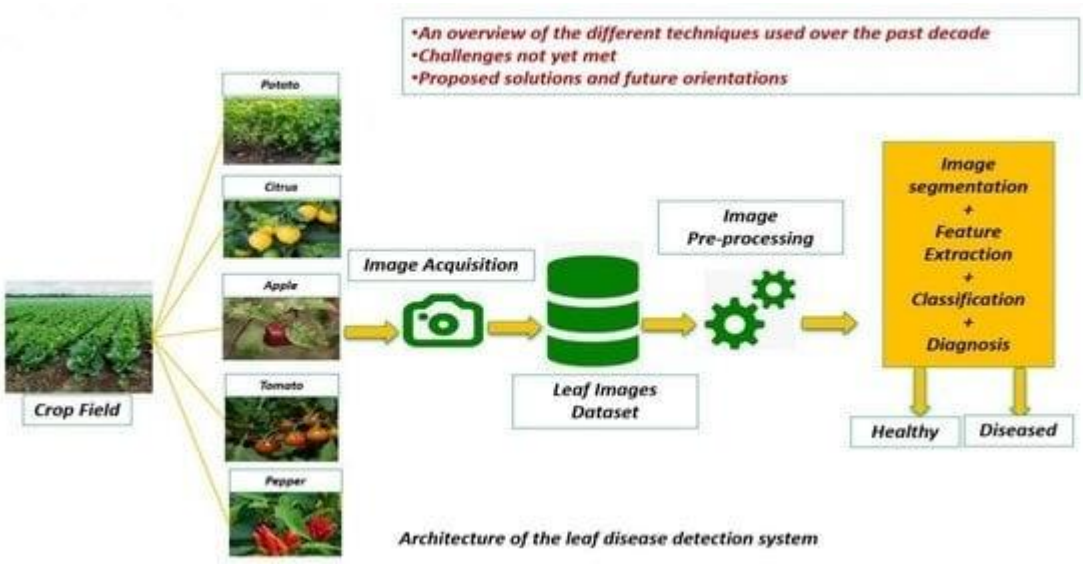
| Team ID | PNT2022TMID30822 |
| Project Name | Fertilizers Recommendation System For Disease Prediction |

## Fertilizer Recommendation System For Disease Prediction :-

### Project Structure:

The dataset folder contains two folders for the fruit and vegetable dataset which again contains a test and train folder, each of them have images of different diseases.

The Flask folder has all the files necessary to build the flask application




precautions excel files contain the precautions for all kinds of diseases

Fruit-Training.ui.py, Vegetable-Training, and Plant-Disease-Testing.python ui.py are the training andtesting notebooks.

IBM folder contains IBM deployment files.

### Data Collection:

Create Train and Test folders, each folder having subfolders with leaf images of different plant diseases. You can collect datasets from open sources like kaggle.com, data.gov,repository, etc. The folder provided in the project structure section has the link to download datasets that can be used for training. Two datasets will be used, we will be creating two models one to detect vegetable leaf diseases like tomato, potato, and pepper plants, and the second model would be for fruit diseases like corn, peach, and apple.

## Image Preprocessing:

Now that we have all the data collected, let us use this data to train the model.before training the model you have to preprocess the images and then feed them on to the model for training. We make use of Keras Image Data Generator class for image preprocessing..

Image Analysis Can Be Applied For The Following Purposes:

1. To detect diseased leaf, stem, fruit.
2. To quantify affected area by disease.
3. To find the boundaries of the affected area.
4. To determine the color of the affected area.
5. To determine size & shape of leaf.
6. To identify the Object correctly. Etc.

**SYSTEM ARCHITECTURE:**