

## PROJECT OBJECTIVE

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| DATE         | 1 November 2022   |
| TEAM ID      | PNT2022TMID12196  |
| PROJECT NAME | Fertilizer Recommendation System for Disease Prediction |

### Project Objective:

In day-to-day life, Agriculture is the most important sector. Most plants are affected by a wide variety of bacterial and fungal diseases. Diseases on plants placed a major constraint on the production and a major threat to food security. Hence, the accurate identification of plant diseases is important to ensure high quantity and best quality. Nowadays, the number of diseases on plants and the degree of harm caused has increased due to the changes in cultivation methods, and inadequate plant protection techniques. Recent technology is introduced to identify different diseases on plants by checking the symptoms shown on the leaves of the plant. Deep learning techniques are used to identify the diseases and suggest the precautions that can be taken for those diseases. Detection and recognition of plant diseases using deep learning are very efficient in providing symptoms of identifying diseases at its earliest. The model can analyze the digital images using digital image processing for diagnosis of plant diseases. Application of image processing strategies simply assist farmers in all of the regions of agriculture. Generally, the plant diseases are caused by the abnormal physiological functionalities of plants. Mostly, the plant leaf diseases are caused by Pathogens which are positioned on the stems of the plants. These different symptoms and diseases of leaves are predicted by different methods in image processing. These different methods include different fundamental processes like segmentation, feature extraction and classification and so on. Mostly, the prediction and diagnosis of leaf diseases are depending on the segmentation such as segmenting the healthy tissues from diseased tissues of leaves.