Project Design Phase-I
Proposed Solution

Date	19 September 2022
Team ID	PNT2022TMID52565
Project Name	Project - Fertilizers Recommendation System For Disease Prediction
Maximum Marks	2 Marks

Proposed Solution:

S.No.	Parameter	Description
1.	Problem Statement	Agriculture is having a great impact on the country's economy. Differentdiseases effect plant that reduces their production and is a major threatto food security. The major problemsthat the farmers of our country are currently facing includesCrop Failure, Lack of adequate knowledge, Crop damage due to ignorance/carelessness, Lack of professional assistance, Inaccessibility to agro-tech solutions. Most of the diseases are detected in later stage that to manually which is time consuming and results in heavy loss so it is important to build an automated system that detects disease at early stage and provides fertilizer recommendation accordingly.
2.	Idea / Solution description	An automated system is built that takes the input as picture of leaves which is uploaded by the user, identifies different diseases on plants by checking the symptoms shown on the leaves of the plant. Deep learning techniques are used toidentify the diseases and suggest thefertilizer needed for the plant.
3.	Novelty / Uniqueness	It does not require user to consult any specialist for identification of diseases that affected the leaves and the fertilizers that is required forthe same. It detects Plant disease at their early stage.
4.	Social Impact / Customer Satisfaction	The whole process of identifying disease and recommendation of fertilizer happens just by uploading image so it is user friendly. It helps farmers to get good yield out of the crop. People will get good quality food products.
5.	Business Model	Social media is the best way to spreadthe word about our application. And with the influencers we can reach outto people. Clustering and targeting the farmers for identifying diseases ontheir plants and recommending them fertilizers for the same.
6.	Scalability of the Solution	It can be used in research areas tostudy about the diseases in plant and the best fertilizer that can be recommended for it among the list of fertilizers available. It can be used by anyone in the world.