Project Design Phase – 1

Proposed Solution Template

Date	22 September
Team ID	PNT2022TMID21501
Project name	Fertilizers Recommendation System For Disease Prediction

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Proposed Solution:

S.No	Parameter	Description
1.	**Problem Statement (Problem to be solved)**	Not all farmers are expertise in nuances of agriculture, few may be novice. Novice cannot accurately predict whether a plant is affected by any disease or not and the amount of fertilizers to be sprayed to get rid of the disease. So we have decided to develop a model for disease prediction and fertilizer recommendation.
2.	**Idea/ Solution Description**	In our project we have planned to develop web application which will be helpful for the farmers for predicting the crop infestation. It can be predicted by emerging technologies like ML and DL algorithm. Along with prediction, we have planned to recommend the proper pesticide and quantity of the pesticide that should be used in order to recover the crop from deterioration. First the train and test image dataset is preprocessed and CNN algorithm is applied to build

		neural network for predicting the crop disease. A web application using Flask is created as an interface for the farmers to use.
3.	**Uniqueness/ Novelty**	• To Check whether the crop in the field is affected by any pest or not. • Recommending the fertilizer to the farmer if the crop is affected by any disease. • It also recommends the amount of fertilizer to use.
4.	**Social Impact/ Customer Satisfaction**	By letting the farmers to know about their crops condition might be helpful for them to take right decision at right time and it also helps them to increase the yield by protecting the plants from deterioration.
5.	**Business model (Revenue model)**	• Provide the farmers the most relevant and expected result they are looking for. • Additionally, we must bear in mind the concept of personalization according the user needs.
6.	**Scalability of the solution**	• Functional quality of the web application will never get compromised; it will be available at every time. • The time it takes for the request and response is very less.