

PROJECT DESIGN PHASE – I

PROPOSED SOLUTION TEMPLATE

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| DATE | 1 October 2022 |
| TEAM ID | PNT2022TMID01117 |
| PROJECT NAME | Project – Artificial Intelligence – Fertilizers Recommendation System for Disease Prediction. |
| MAXIMUM MARKS | 2 Marks |

| SNO | PARAMETER | DESCRIPTION |
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| 1 | Problem Statement (Problem to be solved) | Agriculture is the most important sector in today's life. 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, early and accurate identification of plant diseases is essential to ensure high quantity and best quality. |
| 2 | Idea / Solution description | The solution to the problem is to provide a smart user friendly recommender system to the farmers. By providing their soil details like nitrogen , phosphorous, potassium, pH level , farmer get the idea of which fertilizer is best for the crop. By providing an image of a leaf farmer gets an idea of which disease caught their crop and they also suggest how you can prevent it. |
| 3 | Novelty / Uniqueness | Create a system for predicting crops according to soil details, predicting fertilizers according to soil and crop details, and detecting diseases in the plant. |
| 4 | Social Impact / Customer Satisfaction | Farmers are unaware of which crop to grow, and what is the right time and place to start due to uncertainty in climatic conditions. The usage of various fertilizers is also uncertain due to changes in seasonal climatic conditions and basic assets such as soil, water, and air. In this scenario, the crop yield rate is steadily declining. So this application can be more useful for smart farming. |
| 5 | Business Model (Revenue Model) | In addition to providing information about the use of fertilizers to the diseased crops , it also provides information about what crops can grown in the provided proportion of soil . |
| 6 | Scalability of the solution | Provide nutrients not available in the soil. Replace nutrients removed at harvest. Balance nutrients for better produce quality and higher yield using artificial intelligence . Scalability is quick and high and also very simple to do . |