**Project Design Phase-I**

**Proposed Solution**

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| Date | 23 October 2022 |
| Team ID | PNT2022TMID07149 |
| Project Name | Fertilizers Recommendation System For Disease Prediction |
| Maximum Marks | 2 Marks |

**Proposed Solution**

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| **S.No.** | **Parameter** | **Description** |
| 1. | Problem Statement (Problem to be solved) | This is a challenging task for a country like India, where agriculture feeds approximately 42% of the population. And the outcomes for the farmer of choosing the wrong crop for land is moving towards metro city for livelihoods, suicide, quitting the agriculture and give land on lease to industrialist or use for the non-agriculture purpose. The outcome of wrong crop selection is less yield and less profit. |
|  | Idea / Solution description | The solution to the problem is machine learning. This system recommends the best crop to grow on your land based on the nutritional value of the soil and along with the climate of that region. It also recommends the best fertilizer for each crop, which is a challenging task. The cultivation recommendation features a database of soil nitrogen, phosphorus and potassium for modern agriculture. The ensemble technique is used to create a recommendation model that combines multiple machine-learning predictions. The models recommend the right harvest based on the value of the soil and the best fertilizer. |
|  | Novelty / Uniqueness | This system recommends solution for more complicated problems like choosing best fertilizer for every crop. It also takes care of the most important issue i.e., when plants get caught by heterogeneous diseases that affect fewer amounts of agriculture production and compromise quality. |
|  | Social Impact / Customer Satisfaction | This system is being implemented into agriculture so that it is easier for farmers to grow and maximize their yield. |
|  | Business Model (Revenue Model) | Predicting the fertilizers, Analyzing the ailment in a faucet makes the lifestyles of farmers easy with minimum subscriptions might offer a suitable go-back for the organization. This system adds lots of value to the company and the enterprise in society. |
|  | Scalability of the Solution | This completely modular system makes it easily expandable and business efficient for customized fire detection, with significant cost, Easy operability and management. |