Project Design Phase-I
Proposed Solution Template

Date	06 May 2023
Team ID	NM2023TMID22530
Project Name	Deep Learning Model for Detecting diseases in Tea Leaves

Proposed Solution Template:

Project team shall fill the following information in the proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Tea tree farmers face challenges in timely and accurate detection of leaf diseases, leading to reduced crop yields, increased costs, and decreased profitability. Current methods are labor-intensive, unreliable, and lack accessibility, limiting farmers' ability to effectively manage and mitigate diseases.
2.	Idea / Solution description	Our tea tree leaf disease detection system is an automated and reliable solution that utilizes advanced image processing and machine learning techniques. It enables tea tree farmers to detect and identify leaf diseases quickly and accurately, allowing for prompt intervention and targeted disease management strategies.
3.	Novelty / Uniqueness	Our solution stands out by combining cutting-edge technologies like deep learning algorithms with user-friendly interfaces tailored specifically for tea tree farmers. The integration of disease pattern recognition, rapid image analysis, and disease classification algorithms ensures robust and efficient disease detection.
4.	Social Impact / Customer Satisfaction	The tea tree leaf disease detection system enhances the social impact by empowering tea tree farmers with a cost-effective tool that improves crop health, reduces chemical usage, and minimizes environmental impact. Farmers benefit from increased yields, reduced losses, and improved profitability, leading to overall customer satisfaction and improved livelihoods.
5.	Business Model (Revenue Model)	We propose a subscription-based business model where tea tree farmers pay a monthly or annual fee to access and utilize the tea tree leaf disease detection system. Additional revenue streams can be explored through partnerships with agricultural input suppliers, offering targeted disease management products, or

		providing premium services like expert consultations.
6.	Scalability of the Solution	The tea tree leaf disease detection system is designed to be scalable, allowing it to cater to a growing user base. The system can handle increasing data volumes and accommodate additional features or enhancements as per farmers' evolving needs. Scalability also opens up possibilities for expansion into other crop types and geographical regions. Overall, our tea tree leaf disease detection system addresses the pressing challenges faced by tea tree farmers, offers unique features and value propositions, generates social impact, and provides a sustainable business model with potential for scalability and growth.