Project Design Phase-I
Proposed Solution Template

Date	19 September 2022
Team ID	Team-592333
Project Name	Microbe Mapper: Visual Recognition Of Micro-Organisms
Maximum Marks	2 Marks

Proposed Solution Template:

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

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	The existing methods for microorganism classification involve time-consuming and resource-intensive processes, relying on traditional morphological, chemical, or physical analyses. This poses limitations in swiftly and accurately categorizing microorganisms, hindering research and practical applications.
2.	Idea / Solution description	Our proposed solution, "Microbe Mapper," employs deep learning techniques, particularly the Inception V3 model, to revolutionize

		microorganism classification. It integrates machine vision, pattern recognition, and AI algorithms for efficient and accurate categorization of microorganisms based on images.
3.	Novelty / Uniqueness	Integration of cutting-edge deep learning (Inception V3) specifically tailored for microorganism classification. Automation of the classification process, reducing time and effort traditionally required. User-friendly interface allowing easy image uploads and intuitive result visualization.
4.	Social Impact / Customer Satisfaction	Enhances the pace and accuracy of microorganism classification, facilitating advancements in biological studies. Empowers researchers, biologists, and scientists with a tool that expedites research and discovery in various fields reliant on microorganism functions and characteristics.
5.	Business Model (Revenue Model)	Free model: Basic classification services offered for free with premium features for advanced users or enterprises requiring extensive analysis and additional support. Subscription-based model for access to enhanced reporting and data analytics tools.
6.	Scalability of the Solution	Built with scalability in mind, accommodating increased user demands and data volumes.

		Cloud-based infrastructure enabling easy scaling of resources based on workload fluctuations.