Project Design Phase
Proposed Solution

Date	2 June 2025
Team ID	LTVIP2025TMID31167
Project Name	SmartSDLC – AI-Enhanced Software Development Lifecycle
Maximum Marks	2 Marks

S.No.	Parameter	Description
1.	Problem Statement	Manual software development processes are time-consuming, error-prone, and require significant effort in requirement analysis, coding, testing, and documentation.
2.	Idea / Solution Description	SmartSDLC is an AI-powered platform that automates SDLC tasks like requirement classification, code generation, bug fixing, test creation, and documentation using IBM Granite LLM.
3.	Novelty / Uniqueness	It offers an integrated workflow from PDF-based requirement extraction to test case generation and deployment, with an AI chatbot for real-time SDLC support.
4.	Social Impact / Customer Satisfaction	Reduces developer workload, increases productivity, ensures higher code quality, and assists non-technical users to engage in the development process.
5.	Business Model (Revenue Model)	Freemium model for basic features with premium tiers for enterprises, offering deployment integration, advanced analytics, and API access.
6.	Scalability of the Solution	Designed to support various languages and frameworks; easily extendable to large-scale enterprise solutions via cloud deployment (e.g., IBM Cloud, AWS).