

**Project Design Phase
Proposed Solution Template**

Date	06/23/25
Team ID	LTVIP2025TMID32040
Project Name	Smart SDLC – AI Enhanced Software Development Lifecycle
Maximum Marks	2 Marks

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)	Traditional Software Development Lifecycles (SDLC) are time-consuming, prone to human error, and lack real-time adaptability. Managing requirements, design, testing, and deployment often involves disconnected tools and inefficient manual processes.
2.	Idea / Solution description	"Smart SDLC" is a Generative AI-powered assistant that enhances the entire software development lifecycle. Using IBM Granite models and Gradio interface, it assists with ideation, requirement gathering, architectural design, code generation, test case creation, and deployment suggestions—making development faster, smarter, and more collaborative.
3.	Novelty / Uniqueness	Integrates GenAI into every phase of SDLC—something traditional systems don't do. Offers intelligent automation, contextual awareness, and adaptive learning to support dynamic development needs. Built using IBM's Granite LLM, ensuring enterprise-grade performance.
4.	Social Impact / Customer Satisfaction	Reduces development time and cost while improving software quality. Enables non-technical stakeholders to contribute through intuitive AI-driven interfaces. Improves customer satisfaction by reducing defects and delivery delays.
5.	Business Model (Revenue Model)	Freemium SaaS model: basic version free with limited AI features; premium plans for enterprises with integrations, API access, and

		analytics. Also offers customization services for SDLC workflows.
6.	Scalability of the Solution	Highly scalable: can be integrated into existing CI/CD pipelines and scaled across teams via cloud deployment. Supports plugin-based architecture for extensibility to different industries and SDLC tools.