

Project Design Phase

Proposed Solution Template

Date: 26 June 2025

Team ID: LTVIP2025TMID20490

Project Name: SmartSDLC: AI-Enhanced SDLC Automation Platform

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)	Manual execution of SDLC phases like requirement sorting, code writing, bug fixing, and documentation causes delays and inconsistencies. Developers and managers need intelligent tools to improve productivity.
2	Idea / Solution description	SmartSDLC is an AI-powered development assistant built on IBM Watsonx. It automates requirement classification, code generation, bug detection, test writing, and code summarization through a modular Streamlit interface.
3	Novelty / Uniqueness	Unlike generic code tools, SmartSDLC uses prompt-driven generation via IBM Granite to produce accurate and context-aware outputs. It supports end-to-end SDLC tasks in one interactive application.
4	Social Impact / Customer Satisfaction	The platform accelerates project delivery, reduces developer burnout, and provides accessible AI tools

		to both junior and senior developers, boosting efficiency and job satisfaction.
5	Business Model (Revenue Model)	Freemium model: free basic features for individual developers, subscription for teams or enterprise users. B2B partnerships with dev tool providers or educational platforms are also viable.
6	Scalability of the Solution	Built on scalable cloud services (IBM Cloud), it supports horizontal expansion via modular microservices, multi-language support, and can integrate additional AI models or dev tools as plugins.