**Project Design Phase**

**Proposed Solution Template**

|  |  |
| --- | --- |
| Date | 26 june 2025 |
| Team ID | LTVIP2025TMID37102 |
| Project Name | Smart sdlc-Ai-Enhanced software development life cycle |
| Maximum Marks | 2 Marks |

**Proposed Solution Template:**

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

|  |  |  |
| --- | --- | --- |
| **S.No.** | **Parameter** | **Description** |
|  | Problem Statement (Problem to be solved) | Traditional software development is manual, time-consuming, and error-prone, leading to delayed releases and poor code quality. |
|  | Idea / Solution description | Smart SDLC is an AI-powered platform that automates core phases of the Software Development Lifecycle such as requirement analysis, code generation, test case creation, bug fixing, and documentation using NLP and LLMs. |
|  | Novelty / Uniqueness | Unlike traditional tools, Smart SDLC uses advanced AI (IBM Watsonx + Hugging Face models) to convert natural language requirements into working code and automate QA and bug resolution — all in one ecosystem. |
|  | Social Impact / Customer Satisfaction | Reduces developer burnout, increases productivity, accelerates project delivery, and ensures higher software quality — improving user trust and customer satisfaction. |
|  | Business Model (Revenue Model) | Freemium SaaS model with basic features free and paid plans for enterprise features like code export, API integration, and custom model tuning. |
|  | Scalability of the Solution | Highly scalable using cloud-native architecture with the ability to onboard multiple teams and extend to additional SDLC stages like DevOps, security testing, and CI/CD integration. |