**Project Design Phase**

**Proposed Solution Template**

| Date | 15 February 2025 |
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| Team ID | LTVIP2025TMID32163 |
| 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** |
| --- | --- | --- |
|  | Problem Statement (Problem to be solved) | Many developers and learners struggle to understand and consistently follow SDLC practices due to fragmented tools and lack of contextual guidance. This leads to inefficiencies, poor software quality, and missed learning opportunities. |
|  | Idea / Solution description | Smart SDLC is an AI-powered assistant that provides phase-wise, contextual guidance throughout the Software Development Life Cycle, helping developers and learners implement best practices efficiently through intelligent automation. |
|  | Novelty / Uniqueness | Smart SDLC uniquely combines generative AI with phase-wise SDLC support, offering real-time, context-aware guidance that bridges the gap between theoretical knowledge and practical software development—something traditional tools lack. |
|  | Social Impact / Customer Satisfaction | Smart SDLC empowers learners and developers by making software engineering education more accessible and practical, reducing skill gaps. It enhances customer satisfaction by improving software quality, development efficiency, and user confidence through guided, AI-driven support. |
|  | Business Model (Revenue Model) | Smart SDLC follows a freemium model with premium subscriptions for full access. Revenue is generated through individual plans, institutional licenses for educational use, enterprise SaaS packages, and API integrations for third-party platforms. |
|  | Scalability of the Solution | Smart SDLC is highly scalable due to its cloud-based architecture, modular FastAPI backend, and AI-driven core. It can easily support increasing users, integrate with enterprise tools, and expand to cover additional software practices or domains. |