Project Design Phase
Problem - Solution Fit Template

Date	15 February 2025
Team ID	
Project Name	Smart SDLC AI Assistant
Maximum Marks	2 Marks

1 Problem - Solution Fit Template

1.1 Purpose

The Problem-Solution Fit ensures that the identified customer problem is addressed by a solution that effectively resolves it. It helps identify behavioral patterns, leverage existing channels, sharpen communication strategies, increase touch-points, and build trust by solving frequent, urgent, or costly problems. The goal is to understand the current situation to improve it for the target group.

1.2 Problem - Solution Fit Canvas

Customer Segment	Software developers, students, and small development teams.
Problem	Time-consuming manual SDLC processes (e.g., requirement analysis, coding, testing, debugging, documentation), error-prone coding, and lack of resources for small teams.
Customer Behaviors	Write and debug code manually, search online for bug fixes, struggle with unclear requirements, and spend significant time on repetitive tasks.
Existing Solutions	Manual coding tools (e.g., VS Code, Eclipse), static code analyzers (e.g., SonarQube), and basic automation tools (e.g., Selenium for testing), which lack integrated AI support.
Proposed Solution	Smart SDLC AI Assistant: A web-based platform with AI-driven features for requirement analysis, multilingual code generation, automated test case creation, bug detection and fixing, code summarization, and a chatbot for SDLC queries.
Value Proposition	Saves time by automating repetitive SDLC tasks, reduces errors through AI-driven analysis and fixes, enhances productivity with multilingual code generation, and provides real-time support via a chatbot, tailored for developers with limited resources.

1.3 References

- https://www.ideahackers.network/problem-solution-fit-canvas/
- https://medium.com/@epicantus/problem-solution-fit-canvas-aa3dd59cb4fe