Ideation Phase

Brainstorm & Idea Prioritization

Date	25 Aug 2025
Team ID	NM2025TMID11403
Project Name	SmartSDLC – AI-Enhanced Software Development Lifecycle
Maximum Marks	4 Marks

Step-1: Team Gathering, Collaboration and Selection of the Problem Statement

The team collaborated to identify inefficiencies in the traditional software development lifecycle (SDLC), especially for beginners and non-technical stakeholders. The problem statement finalized was:

"Manual SDLC processes are time-consuming, error-prone, and lack automation and intelligent assistance, making software project management difficult for students and small teams."

Step-2: Brainstorming, Idea Listing and Grouping

The following ideas were proposed during the brainstorming session:

Idea	Description	Category
AI Requirement Classifier	Extracts and classifies SDLC phases from uploaded PDFs	Requirement Analysis
Code Generator	Converts user stories into functional code	Development
Bug Fixing Tool	Suggests and auto-fixes bugs in given code	Debugging
Test Case Generator	Auto-generates test cases from code	Testing
Code Summarizer	Summarizes large code files into readable descriptions	Documentation
AI Chat Assistant	Acts as a virtual assistant to guide users through SDLC	Support/Assistant

Grouped into three main SDLC-focused categories:

- **Automation of Lifecycle Activities**

- **Intelligent Assistance**

- **User-Friendliness for Students & Teams**

Step-3: Idea Prioritization

Ideas were prioritized using **Impact vs. Effort Matrix**:

Idea	Impact	Effort	Priority Level
AI Requirement Classifier	High	Medium	High
Code Generator	Very High	Medium	High
Bug Fixing Tool	Medium	Low	Medium
Test Case Generator	High	Medium	High
Code Summarizer	Medium	Low	Medium
AI Chat Assistant	Very High	High	High

Final Prioritized Ideas (to be included in MVP):

- Code Generator

- Requirement Classifier

- Test Case Generator

- AI Assistant