

Ideation Phase

Brainstorm & Idea Prioritization Template

Date: 26 June 2025

Team ID: LTVIP2025TMID32004

Project Name: SmartSDLC: AI-Enhanced Software Development Lifecycle

Maximum Marks: 4 Marks

Brainstorming provides a free and open environment that encourages everyone within a team to participate in the creative thinking process that leads to problem solving. Prioritizing volume over value, out-of-the-box ideas are welcome and built upon, and all participants are encouraged to collaborate, helping each other develop a rich amount of creative solutions.

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

Reference: <https://www.mural.co/templates/brainstorm-and-idea-prioritization>

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

Team Members:

- Kuraganti Bharath (Team Leader)
- Kasturi Sandeep
- Kantamaneni Prudhvi
- Kode Devi Sri Vallika

Selected Problem Statement:

How might we build an AI-powered platform that streamlines the software development life cycle by automating requirement classification, code generation, bug fixing, testing, and documentation using IBM Watsonx and Generative AI?

Step-2: Brainstorm, Idea Listing and Grouping

Brainstormed Ideas:

- Enable uploading of raw requirement documents and auto-classify into SDLC phases.
- Use Watsonx to generate user stories and code snippets.
- Develop an AI code assistant for generating logic from prompts.
- Include a bug fixer module that refines faulty code.
- Generate test cases automatically from function definitions.
- Summarize code into readable documentation with use cases.
- Implement a chat assistant for developer Q&A on SDLC topics.
- Provide a dashboard for visualizing SDLC artifacts per phase.
- Ensure output is clean, deduplicated, and easy to export.

Step-3: Idea Prioritization

Top Priority Ideas for Implementation:

1. Requirement Upload & SDLC Phase Classification using Watsonx
2. AI-based Code Generator using natural language prompts
3. Bug Fixer for Python code using Generative AI
4. Automated Test Case Generation

Secondary Priority Ideas:

- Code Summarizer for documentation generation
- SDLC Chat Assistant for developer support
- Visual phase-wise progress analytics

These ideas were selected based on feasibility, impact, and the ability to demonstrate the real-world capabilities of IBM Watsonx in software engineering automation.