

Ideation Phase

Brainstorm & Idea Prioritization Template

Date	31 January 2025
Team ID	LTVIP2025TMID59427
Project Name	Smart SDLC – AI Requirement Analyzer
Maximum Marks	4 Marks


Brainstorm & Idea Prioritization Template:

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



Brainstorm & idea prioritization

- Identified the need to automate software requirement analysis.
- Considered AI tools like OpenRouter for intelligent prompt engineering.
- Planned a user-friendly UI to upload and analyze .txt files.
- Chose free, deployable technologies like Streamlit and Hugging Face.
- Prototyped a cloud-based app to support early SDLC phases efficiently.

⌚ 10 minutes to prepare

👥 1 hour to collaborate

👤 2-8 people recommended

Before you collaborate

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

⌚ 10 minutes

Team gathering

The team convened to identify challenges in manual requirement analysis. Roles were discussed, and members agreed on building an AI-based solution. Consensus was reached to use free APIs and deploy on Streamlit Cloud. The project goal was aligned with automating the SDLC requirement phase.

Set the goal

The goal is to develop an AI-powered tool that automates requirement analysis. It should extract structured insights from raw text inputs using OpenRouter models. The solution will streamline early SDLC phases through a simple, cloud-based app.

Learn how to use the facilitation tools

We used the Mural brainstorming template to collect and organize ideas. It helped the team collaborate remotely and prioritize key requirements. This structured approach guided the development of our AI analyzer tool.

[Open article](#) →


Define your problem statement

What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

⌚ 5 minutes

PROBLEM

Software teams often face challenges in analyzing textual and requirement documents. The project phase, an AI-powered tool to extract and organize requirements efficiently. It helps streamline the early SDLC phases, saving time and improving clarity.



Key rules of brainstorming

To run an smooth and productive session

🗣️ Stay in topic.

💡 Encourage wild ideas.

🕒 Defer judgment.

👂 Listen to others.

🗣️ Go for volume.

👁️ If possible, be visual.

Step-2: Brainstorm, Idea Listing and Grouping

2

Brainstorm

Write down any ideas that come to mind that address your problem statement.

10 minutes

TP

You can select a sticky note and hit the pencil (edit) icon to start drawing!

Person 1

1. Gather raw ideas, functional needs, or problem statements from stakeholders.
2. Complex the content into a plain .txt document.
3. Access the Streamlit AI Analyzer web app.
4. Uploads the requirement file through the interface.
5. Ensures the file is clear and complete before submission.

Person 2

1. Opens the Streamlit app and views the uploaded file details.
2. Clicks the "Analyze" button to trigger AI processing.
3. Waits for the response generated by the AI model (e.g., Mistral via OpenRouter).
4. Reads the extracted software requirements generated by the model.
5. Interprets and refines the results for documentation or SDLC use.

3

Group Ideas

Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you can break it up into smaller sub-groups.

20 minutes

TP

Add clickable tags to sticky notes to make it easier to find, browse, organize, and categorize important ideas as themes within your mind.

Grouped Ideas for Smart SDLC – AI Requirement Analyzer

1. Input Handling

- Allow users to upload .txt files containing raw requirements.
- Validate file type and confirm successful upload.

2. AI Processing

- Integrate OpenRouter API with Mistral model.
- Formulate prompts to extract structured software requirements.

3. User Interface

- Build a clean Streamlit UI with upload and analyze buttons.
- Provide feedback during processing (e.g., spinners, status).

4. Results Display

- Show extracted requirements in a clear, readable format.
- Allow users to review and use output for SDLC planning.

5. Deployment & Access

- Deploy on Streamlit Cloud.
- Secure API credentials using secrets.toml

Step-3: Idea Prioritization

4

Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

20 minutes

TP

Participants can use their cursors to point at where sticky notes should go on the grid. The facilitator can confirm the spot by using the Enter/Return key on the keyboard.

Importance

refers to how critical a feature or task is to the success and goals of the project.

Feasibility

Indicates how realistically and easily that feature can be implemented with available resources.

Streamlit UI and Analyze button

Export to pdf feature

Advanced Visualisation