Ideation Phase
Brainstorm & Idea Prioritization Template

Date	31 January 2025
Team ID	LTVIP2025TMID33968
Project Name	SmartSDLC-AI-Enhanced Software Development Lifecycle
Maximum Marks	4 Marks

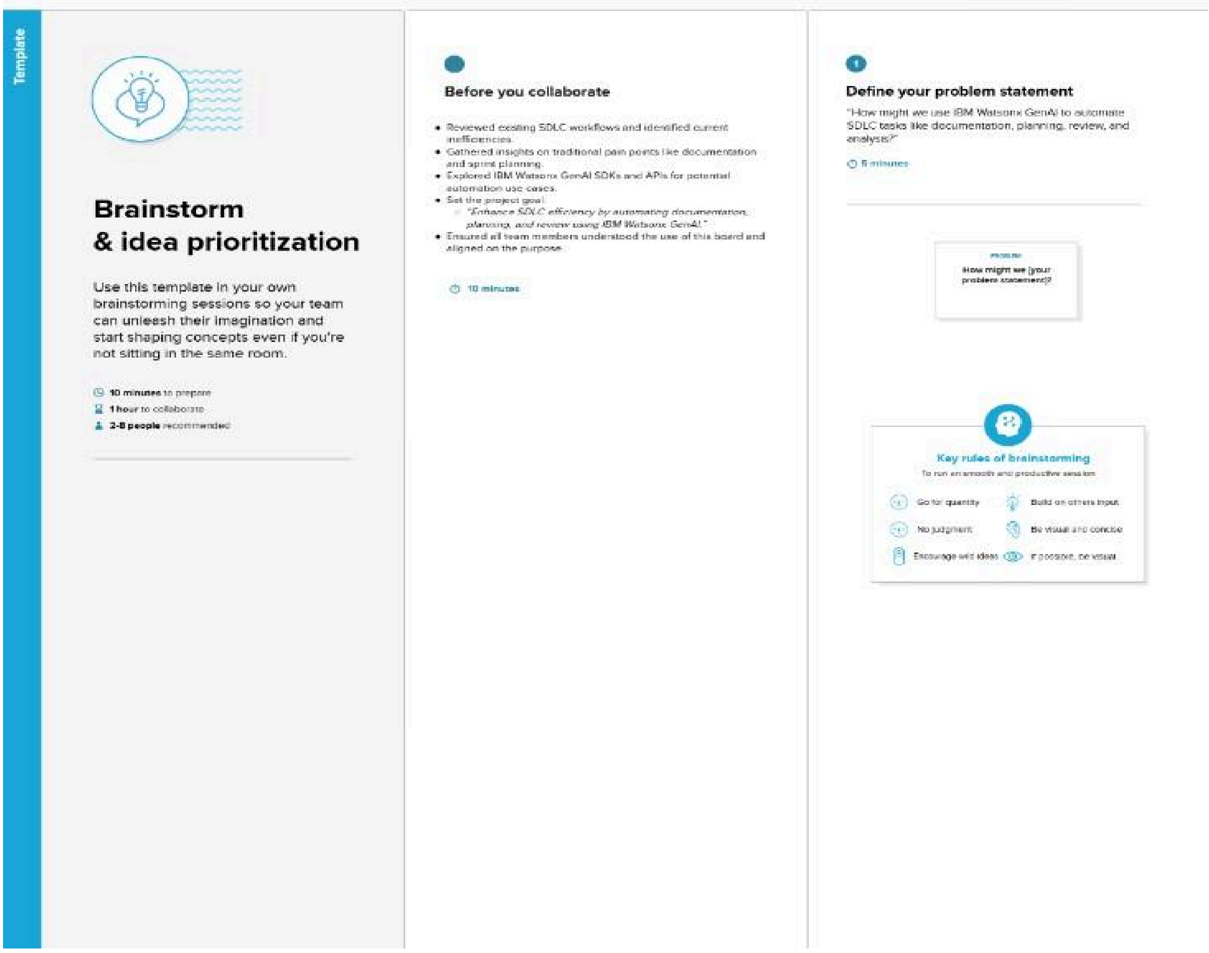
Brainstorm & Idea Prioritization Template:

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://app.mural.co/t/smartsdlcproject1965/m/smartsdlcproject1965/1750999138951/7035321504b2bd60d1671b77aebc95996dbd5b99?sender=u25e5d968bf04dfe4aca44245

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



Brainstorm & idea prioritization

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.

- **10 minutes** to prepare
- **1 hour** to collaborate
- **2-8 people** recommended

Before you collaborate

- Reviewed existing SDLC workflows and identified current inefficiencies.
- Gathered insights on traditional pain points like documentation and sprint planning.
- Explored IBM Watsonx GenAI SDKs and APIs for potential automation use cases.
- Set the project goal:
  - *"Enhance SDLC efficiency by automating documentation, planning, and review using IBM Watsonx GenAI."*
- Ensured all team members understood the use of this board and aligned on the purpose.

10 minutes

Define your problem statement

"How might we use IBM Watsonx GenAI to automate SDLC tasks like documentation, planning, review, and analysis?"

5 minutes

PROBLEM

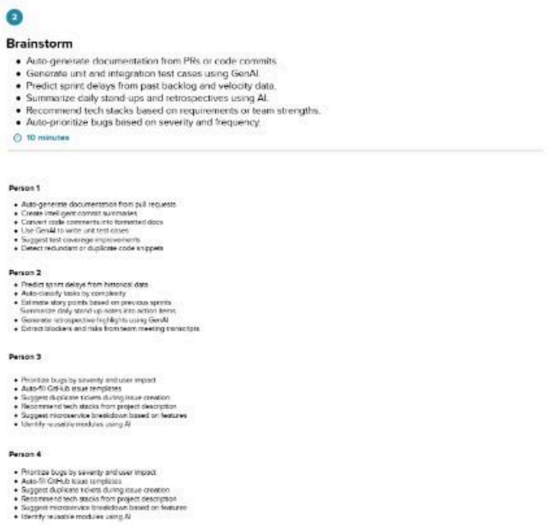
How might we [your problem statement]?

Key rules of brainstorming

To run an smooth and productive session

Go for quantity	Build on others input
No judgment	Be visual and concise
Encourage wild ideas	If possible, be visual

Step-2: Brainstorm, Idea Listing and Grouping



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Brainstorm

- Auto-generate documentation from PRs or code commits
- Generate unit and integration test cases using GenAI.
- Predict sprint delays from past backlog and velocity data.
- Summarize daily stand-ups and retrospectives using AI.
- Recommend tech stacks based on requirements or team strengths.
- Auto-prioritize bugs based on severity and frequency.

10 minutes

Person 1

- Auto-generate documentation from pull requests
- Create intelligent commit summaries
- Convert code comments into formatted docs
- Use GenAI to write unit test cases
- Suggest test coverage improvements
- Detect redundant or duplicate code snippets

Person 2

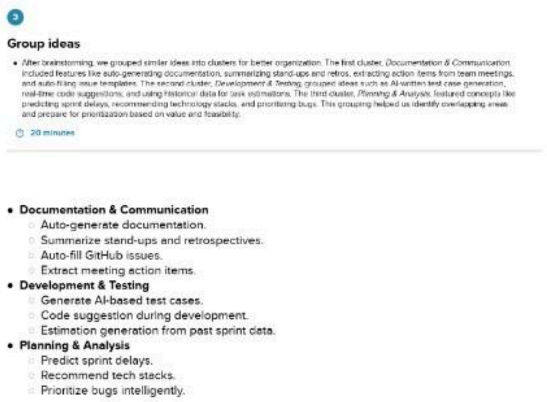
- Predict sprint delays from historical data
- Auto-classify tasks by complexity
- Estimate story points based on previous sprints
  Summarize daily stand-up notes into action items
- Generate retrospective highlights using GenAI
- Extract blockers and risks from team meeting transcripts

Person 3

- Prioritize bugs by severity and user impact
- Auto-fill GitHub issue templates
- Suggest duplicate tickets during issue creation
- Recommend tech stacks from project description
- Suggest microservice breakdown based on features
- Identify reusable modules using AI

Person 4

- Prioritize bugs by severity and user impact
- Auto-fill GitHub issue templates
- Suggest duplicate tickets during issue creation
- Recommend tech stacks from project description
- Suggest microservice breakdown based on features
- Identify reusable modules using AI



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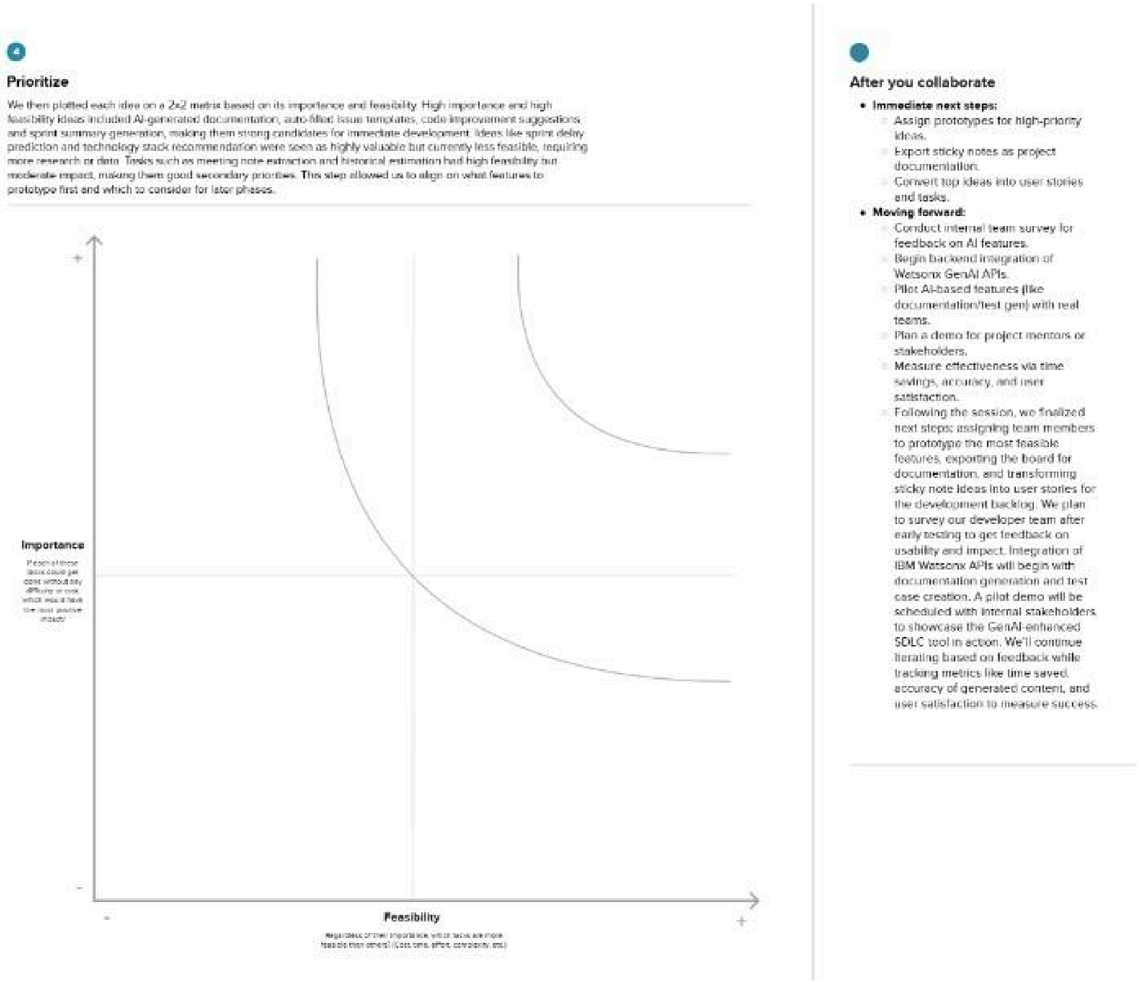
Group ideas

- After brainstorming, we grouped similar ideas into clusters for better organization. The first cluster, *Documentation & Communication* included features like auto-generating documentation, summarizing stand-ups and retros, extracting action items from team meetings, and auto-filing issue templates. The second cluster, *Development & Testing*, grouped ideas such as AI-written test case generation, real-time code suggestions, and using historical data for task estimations. The third cluster, *Planning & Analysis*, featured concepts like predicting sprint delays, recommending technology stacks, and prioritizing bugs. This grouping helped us identify overlapping areas and prepare for prioritization based on value and feasibility.

20 minutes

- **Documentation & Communication**
  - Auto-generate documentation.
  - Summerize stand-ups and retrospectives.
  - Auto-fill GitHub issues.
  - Extract meeting action items.
- **Development & Testing**
  - Generate AI-based test cases.
  - Code suggestion during development.
  - Estimation generation from past sprint data.
- **Planning & Analysis**
  - Predict sprint delays.
  - Recommend tech stacks.
  - Prioritize bugs intelligently.



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Prioritize

We then plotted each idea on a 2x2 matrix based on its importance and feasibility. High importance and high feasibility ideas included AI-generated documentation, auto-filled issue templates, code improvement suggestions and sprint summary generation, making them strong candidates for immediate development. Ideas like sprint delay prediction and technology stack recommendation were seen as highly valuable but currently less feasible, requiring more research or data. Tasks such as meeting note extraction and historical estimation had high feasibility but moderate impact, making them good secondary priorities. This step allowed us to align on what features to prototype first and which to consider for later phases.

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Importance
If each of these tasks could get done without any difficulty or cost, which would have the most positive impact?
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Feasibility
Regardless of their importance, which tasks are more feasible than others? (Cost, time, effort, complexity, etc.)
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After you collaborate

- **Immediate next steps:**
  - Assign prototypes for high-priority ideas.
  - Export sticky notes as project documentation.
  - Convert top ideas into user stories and tasks.
- **Moving forward:**
  - Conduct internal team survey for feedback on AI features.
  - Begin backend integration of Watsonx GenAI APIs.
  - Pilot AI-based features (like documentation/test gen) with real teams.
  - Plan a demo for project mentors or stakeholders.
  - Measure effectiveness via time savings, accuracy, and user satisfaction.
  - Following the session, we finalized next steps: assigning team members to prototype the most feasible features, exporting the board for documentation, and transforming sticky note ideas into user stories for the development backlog. We plan to survey our developer team after early testing to get feedback on usability and impact. Integration of IBM Watsonx APIs will begin with documentation generation and test case creation. A pilot demo will be scheduled with internal stakeholders to showcase the GenAI-enhanced SDLC tool in action. We'll continue iterating based on feedback while tracking metrics like time saved, accuracy of generated content, and user satisfaction to measure success.

Step-3: Idea Prioritization