

Ideation Phase

Brainstorm & Idea Prioritization Template

Date	31 January 2025
Team ID	LTVIP2026TMIDS24126
Project Name	Rising Waters – A Machine Learning Approach to Flood Prediction
Maximum Marks	4 Marks

Brainstorm & Idea Prioritization Template:

Brainstorming in our project provided an open and collaborative environment where all team members actively contributed ideas related to flood prediction using machine learning. We focused on generating innovative solutions for early warning systems, disaster response planning, and infrastructure resilience.

Instead of judging ideas immediately, we encouraged creative and data-driven suggestions, including different machine learning models, datasets, and real-time alert mechanisms. After generating multiple ideas, we prioritized them based on feasibility, societal impact, data availability, and technical complexity to finalize the most effective solution for our project.

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



Brainstorm & idea prioritization

Use this template for brainstorming sessions for the project: Rising Waters – A Machine Learning Approach to Flood Prediction

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

A 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

B Team gathering
Define who should participate in the session:
Participants:

- Data Collection Lead
- ML Model Developer
- Data Preprocessing Lead
- Dashboard / UI Designer
- Documentation & Research Lead

C Set the goal
Think about the problem you'll be focusing on solving in this brainstorming session.
Session Goal:

- Identify flood-related datasets
- Select suitable ML algorithms
- Define prediction output (Low/Medium/High Risk)
- Plan early warning system structure

D Learn how to use the facilitation tools
Use structured brainstorming and idea grouping to ensure a productive session.
Encourage equal participation and data-driven discussions.

E Define your problem statement
What problem are you trying to solve?
Frame your problem as a How Might We statement.
This will be focus of your brainstorm.
⌚ 5 minutes

PROBLEM
How might we develop a Machine Learning-based system to predict flood occurrences using historical and real-time environmental data in order to provide early warnings and reduce disaster impact?

Key rules of brainstorming
To run a smooth and productive session

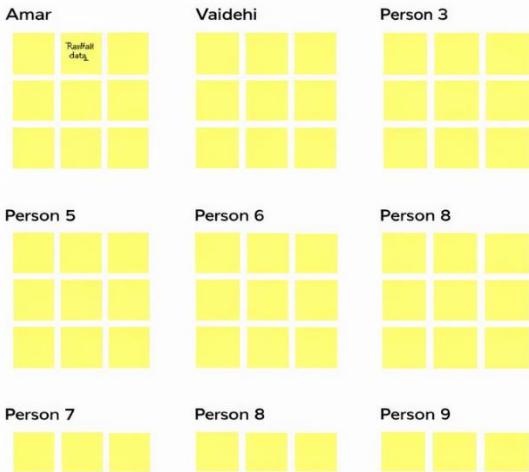
- Stay on topic (Flood Prediction Focus)
- Encourage innovative ML ideas
- Defer judgment
- Listen to others
- Prioritize feasible & high-impact solutions

Step-2: Brainstorm, Idea Listing and Grouping

Brainstorm

Write down any ML models, datasets, or ideas that address the flood prediction problem using sticky notes. Don't hesitate to suggest innovative ideas, even if they seem unconventional initially.

⌚ 30 minutes



Grouping Ideas

Share and organize ideas generated during the brainstorming session. Group similar or related ideas together to form clusters that can inform the flood prediction system.

⌚ 20 minutes

TIP Combine related ideas together. Give each group a category name to label it. If a group has too many notes, break it into smaller sub-groups.

Step-3: Idea Prioritization

Our team should all be on the same page about which flood prediction ideas have the highest societal impact and are the most feasible. Place your ideas on this grid to determine the best prioritization.

⌚ 20 minutes

