

## Ideation Phase

### Brainstorm & Idea Prioritization Template

Date	29 April 2023
Team ID	NM2023TMID05295
Project Name	Project - Automated Weather Classification Using Transfer Learning
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/empathy-map-canvas>

#### 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

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**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

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**A Team gathering**  
Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.

**B Set the goal**  
Think about the problem you'll be focusing on solving in the brainstorming session.

**C Learn how to use the facilitation tools**  
Use the Facilitation Superpowers to run a happy and productive session.

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**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

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PROBLEM

How might we [your problem statement]?



**Key rules of brainstorming**

To run a smooth and productive session

- Stay in topic.
- Defer judgment.
- Go for volume.
- Encourage wild ideas.
- Listen to others.
- 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

**Tip** You can capture a sticky note whenever the point/subject is already noted in your thinking.

### 3 Group Ideas

Take time clustering 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 larger than six sticky notes, try and see if you can break it up into smaller sub-groups.

20 minutes

**Tip** Ask participants to help to identify clusters to support a topic. Consider organizing ideas into groups that make sense within your ideas.

Person 1

The problem is to develop an automated weather classification system using transfer learning, which can accurately classify different types of weather conditions, such as sunny, rainy, cloudy, etc., based on images captured from different sources.

Person 2

Using deep learning models like CNN, RNN, and LSTM to classify weather patterns based on various features such as temperature, humidity, wind speed, etc.

Person 3

Brainstorm different feature extraction techniques that can be used to extract relevant features from the weather images, such as color histograms, texture features, and deep features.

Person 4

Collect a diverse dataset of weather images from various sources, such as weather stations, satellites, and webcams, with different lighting conditions and perspectives.

Person 5

Person 6

Person 7

Person 8

The problem is to develop an automated weather classification system using transfer learning, which can accurately classify different types of weather conditions, such as sunny, rainy, cloudy, etc., based on images captured from different sources.

Collect a diverse dataset of weather images from various sources, such as weather stations, satellites, and webcams, with different lighting conditions and perspectives.

Using deep learning models like CNN, RNN, and LSTM to classify weather patterns based on various features such as temperature, humidity, wind speed, etc.

Brainstorm different feature extraction techniques that can be used to extract relevant features from the weather images, such as color histograms, texture features, and deep features.

## 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

**Tip** Participants can use their names to place their ideas. Sticky notes should go on the grid. The facilitator will coordinate the grid by using the team member holding the #1 key on the keyboard.