

Ideation Phase

Brainstorm&Idea Prioritization Template

Date	25 September 2022
Team ID	PNT2022TMID18498
Project Name	Project – Natural Disaster Intensity Analysis and Classification Using Artificial Intelligence
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.

Brainstorm & Idea Prioritization for “Natural Disaster Intensity Analysis and Classification Using Artificial Intelligence”:

Reference: <https://tinyurl.com/muralbrainstorm>

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

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

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



Set the goal

Think about the problem you'll be focusing on solving in the brainstorming session.



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Use the Facilitation Superpowers to run a happy and productive session.

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1

Define your problem statement

To classify the natural disaster based on the live image given as input by using Deep Learning.

🕒 5 minutes

PROBLEM

How might we tackle the problem of classifying the natural disaster?



Key rules of brainstorming

To run a 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

Ideas related to the classification of natural disaster

10 minutes

TIP
You can select a sticky note and hit the pencil switch to sketch/you to start drawing!

JEYASHREE

Natural disasters affect the ecosystem.

Many lives have been affected due to the natural disaster.

Necessary for the earlier classification

This will reduce the loss of life.

To reduce the effects, a webpage is designed

It classifies the natural disaster based on the image.

Live image data are taken for classification.

Done by using Deep Learning Techniques like CNN

Large images are needed for better accuracy

LAKSHMI PRIYA

To Classify the natural disasters

naturally occurring events that cause problems to environment

Cyclone Intensity Calculation

Disasters like earthquakes, flood, wildfire are. Classify using this model.

Work with open CV

Deep Learning techniques have been applied

Live Images can be captured using webcam, and then tested

Classifies based on image

Reduce the loss of life

KAVIPRIYA

A natural disaster can cause loss of life and property

AI can help response teams understand natural disasters, monitor events in real time

AI to detect events such as earthquakes

Natural disasters can also be prevented or reduced by using AI

Huge amount of dataset is needed for training

In particular ML is playing an increasingly important role in disaster risk reduction

The frequency of extreme events and the development of natural hazards in the disaster

Scientists use AI systems in data to enhance natural disaster response and recovery

AI can predict four types of natural disasters: flooding, drought, earthquakes

KAVYAVARSHINI

detect and classify the type of disaster with high accuracy rate

developed using deep learning techniques like multilayered deep convolutional neural network

A model to predict cyclone, earthquake, wildfire, flood has been proposed

To carry out disaster analysis, twitter were used where people share their views

Using three layer architecture CNN to extract three relevant image features: disaster location, disaster classification, disaster detection analysis and software.

With the help of neural network, it is possible to predict floods and save masses from disaster

Classified image feature extraction with a double stage decomposition

CNN model is used to extract flood images from raw images and color filters are used to refine the desired detection

The proposed system efficiency and accuracy were tested on several datasets and it outperformed other methods to give the highest results.

3

Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. In the last 10 minutes, 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

Technical Aspects

A large dataset is needed for the accurate model.

Create a user friendly GUI that helps classify the natural disaster

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

Social Impacts

Reduce the loss of life

Earlier precaution measures

Availability of resources

Image data needed for classification

Enormous data is needed for classifying the image data.

People emotions

People emotions on drastic disasters

People emotions on that helped families who lost their home.

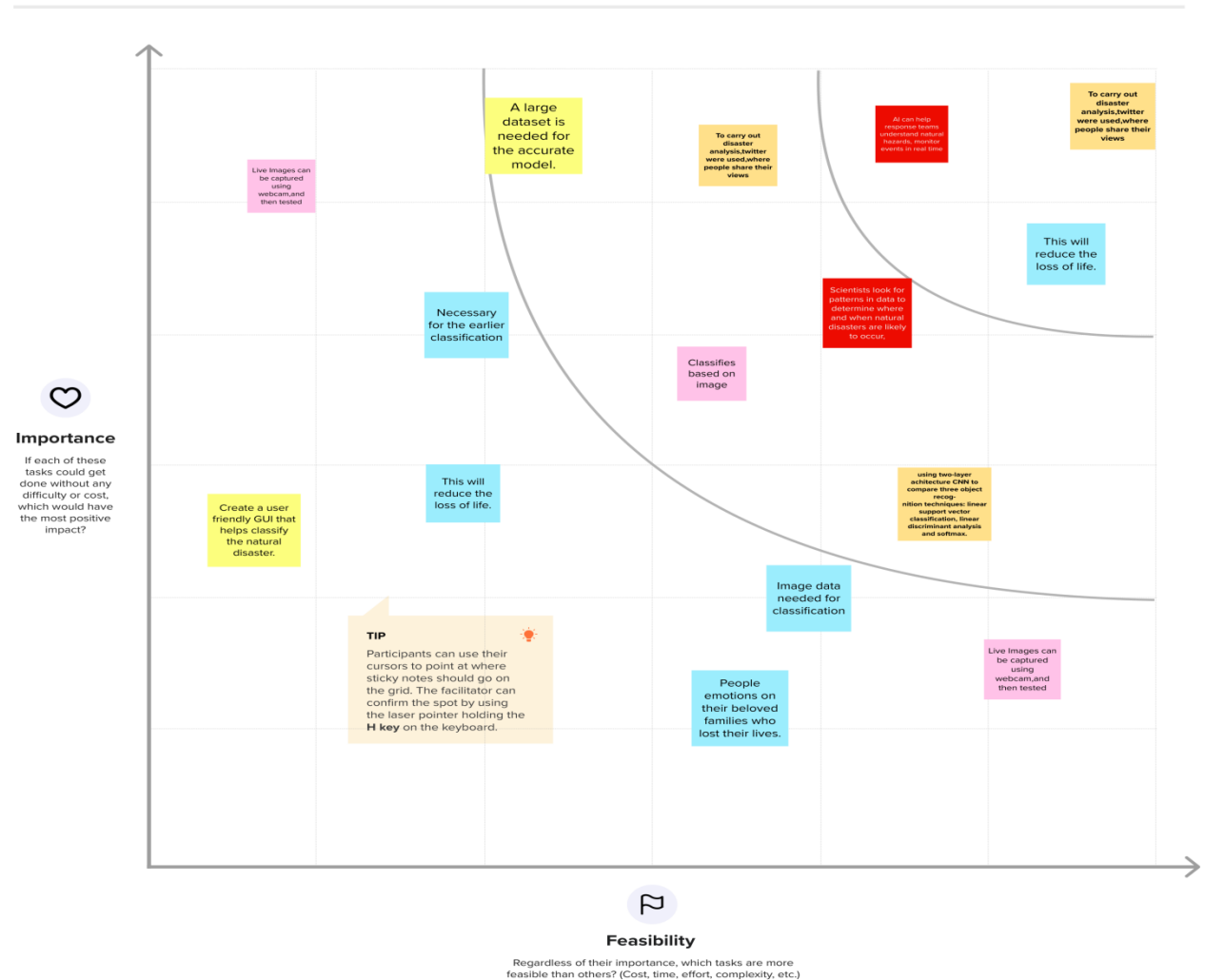
Step-3: Idea Prioritization

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



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