Ideation Phase
Brainstorm & Idea Prioritization Template

Date	02 November 2023
Team ID	Team - 592796
Project Name	Alzheimer Disease Prediction
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.

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

Template

Brainstorm & idea prioritization

Alzheimer Disease Prediction using Deep Learning

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

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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1 Define your problem statement

The Alzheimer's disease prediction project aims to design an end-to-end framework for early detection of Alzheimer's disease and medical image classification for various AD stages. Early detection of Alzheimer's disease is crucial as it can lead to earlier interventions, such as lifestyle changes and medications, which may help to slow down the progression of the disease. By developing a shared understanding and empathy for people who are at risk of developing Alzheimer's disease, you can generate ideas, prioritize features, or discuss decisions that are more aligned with their needs and concerns.

5 minutes

PROBLEM

How might we [your problem statement]?

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

TIP

You can select a sticky note and hit the pencil [switch to sketch] icon to start drawing!

Jithu

- A web application using Unsupervised Learning techniques
- Develop a convolutional neural network (CNN) model for predicting stages.
- Collection of Dataset from ADNI, OASIS or NIAGADS

Arun

- Integration of brain imaging data for early Alzheimer's detection.
- Create a user-friendly mobile app that allows individuals to upload images for disease prediction and provides educational resources on Alzheimer's disease
- NLP techniques analyzing speech patterns for early detection.

Saathwick

- Using deep learning techniques like ResNet and AlexNet
- Using deep learning to analyze speech and vocabulary pattern .
- Using CNN to analyze MRI pattern of patients

Mahaashwanth

- Analyzing white matter changes and lesions in MRI scans can indicate cognitive decline in Alzheimer's disease.
- Longitudinal analysis of data to track disease progression and predict outcomes.
- Facilitate remote patient monitoring through wearable devices and remote image acquisition to streamline change detection and tracking.
- Augment MRI data with variations in orientation, noise, or resolution to improve the model's robustness and ability to handle diverse scan qualities.

3

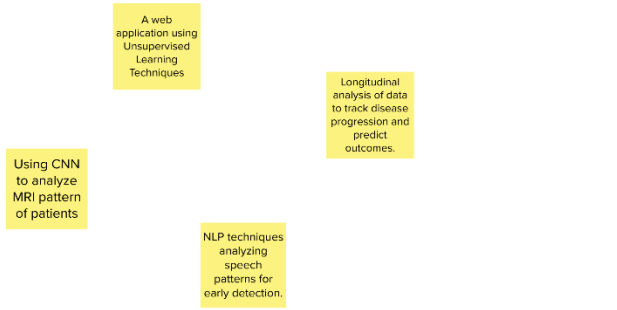
Group ideas

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 and break it up into smaller sub-groups.

20 minutes

TIP

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



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 cursors to point at where sticky notes should go on the grid. The facilitator can confirm the spot by using the laser pointer holding the **H key** on the keyboard.