

Ideation Phase
Brainstorm & Idea Prioritization Template

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| Date | 18 October 2023 |
| Team ID | Team-592616 |
| Project Name | Detecting Covid-19 from Chest X-Rays using Deep Learning Techniques |
| 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

Template



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

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.

Open article

➔

1

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

PROBLEM

How might we Detect Covid-19 using Chest X-Rays with Deep Learning Techniques

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.



Need some inspiration?

See a finished version of this template to kickstart your work.

Open example ➔

Step-2: Brainstorm, Idea Listing and Grouping

2

Brainstorm

Write down any ideas that come to mind that address your problem statement.

🕒 10 minutes

Avinash V

- Leverage existing image classification techniques like VGG, IS, ResNet, transfer learning for model building (Transfer learning)
- Create mobile apps that allow users to take a picture of their chest X-ray and receive instant feedback on their COVID-19 status.
- Try improving the existing model by fine-tuning it to the specific dataset (Transfer learning)
- Leverage GCP for cloud storage of consumer data and diagnosis result for analysis.

Sreyas G S

- Automatic alert message to patients who are diagnosed positive.
- Comparing chest X-ray data with other parameters and information using machine learning techniques.
- Using CNN and transfer learning for image classification. It is well-suited for image classification tasks.
- For transfer learning, we can use pre-trained models like VGG, IS, ResNet, and fine-tune them for our specific dataset.

Kavali Durga Divyavari Sai

- Developing an AI-based system that can analyze chest X-ray images and provide a diagnosis. The system can be used by doctors to assist in their diagnosis.
- Transfer learning can be used to leverage the knowledge from pre-trained models like VGG, IS, ResNet, and fine-tune them for our specific dataset.
- Creating a mobile app that allows users to take a picture of their chest X-ray and receive instant feedback on their COVID-19 status.
- Using GCP for cloud storage of consumer data and diagnosis result for analysis.

Ashwanth M

- Using CNN and transfer learning for image classification. It is well-suited for image classification tasks.
- For transfer learning, we can use pre-trained models like VGG, IS, ResNet, and fine-tune them for our specific dataset.
- Comparing chest X-ray data with other parameters and information using machine learning techniques.
- Automatic alert message to patients who are diagnosed positive.

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 can break it up into smaller sub-groups.

🕒 20 minutes

Cluster 1: Data Generation and Preprocessing

- Clear and preprocess the data. It is well-suited for image classification tasks.
- Comparing chest X-ray data with other parameters and information using machine learning techniques.
- Using GCP for cloud storage of consumer data and diagnosis result for analysis.

Cluster 2: Model Definition

- Using CNN and transfer learning for image classification. It is well-suited for image classification tasks.
- For transfer learning, we can use pre-trained models like VGG, IS, ResNet, and fine-tune them for our specific dataset.
- Comparing chest X-ray data with other parameters and information using machine learning techniques.
- Automatic alert message to patients who are diagnosed positive.

Cluster 3: User Interface

- Automatic alert message to patients who are diagnosed positive.
- Comparing chest X-ray data with other parameters and information using machine learning techniques.
- Using GCP for cloud storage of consumer data and diagnosis result for analysis.

Cluster 4: Future Scope

- Using GCP for cloud storage of consumer data and diagnosis result for analysis.
- Comparing chest X-ray data with other parameters and information using machine learning techniques.
- Automatic alert message to patients who are diagnosed positive.



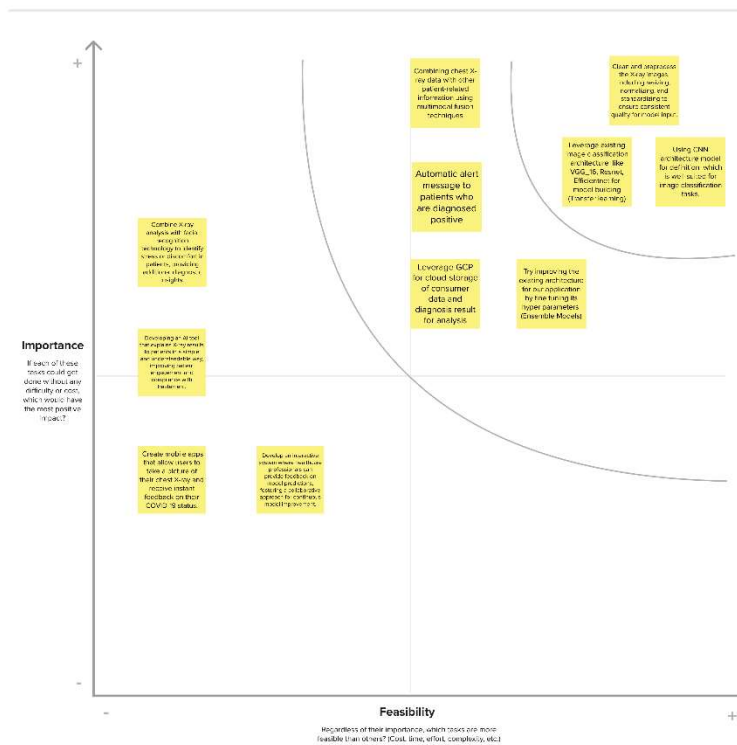
Step-3: Idea Prioritization

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



5

After you collaborate

You can export the mural as an image or pdf to share with members of your company who might find it helpful.

Quick add-ons

- Share the mural**
Share a view link to the mural with stakeholders to keep them in the loop about the outcomes of the session.
- Export the mural**
Export a copy of the mural as a PNG or PDF to attach to emails, include in slides, or save in your drive.

Keep moving forward

- Strategy blueprint**
Define the components of a new idea or strategy.
[Open the template →](#)
- Customer experience journey map**
Understand customer needs, motivations, and obstacles for an experience.
[Open the template →](#)
- Strengths, weaknesses, opportunities & threats**
Identify strengths, weaknesses, opportunities, and threats (SWOT) to develop a plan.
[Open the template →](#)

[Share template feedback](#)



Note: Original file uploaded in repository