

Ideation Phase

Brainstorm & Idea Prioritization


Detecting COVID-19 From Chest X-Rays Using Deep Learning Techniques

Date : 17th October 2023

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Team ID : Team-592660

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 [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!

S HRUTHIK

Combine various deep learning models, including image recognition, natural language processing, and data analytics, to create a comprehensive diagnostic tool.

Integrate AI-based X-ray analysis with PCR test results for comprehensive diagnosis and validation.

Design a user-friendly mobile application that allows individuals to take photos of their chest X-rays for AI analysis, providing early indications of COVID-19.

R V MONAALIKA

Not only by using chest X ray, Use Patients Background health records and advise them what is coming next and its severeness

Model should show the percentage of COVID-19 rate and as well as recovery rate in Results

Supervised Learning Approach

PHANEENDRA

Incorporate a feedback loop that allows healthcare professionals to provide input on AI diagnoses, fine-tuning the models.

Implement an AI system that continuously learns from new X-ray data, adapting to changes in the virus's presentation and diagnosis guidelines.

Combine Different Models for high Acciracy rate

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

TIP

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



Improve Accuracy rate - Detection

Multi-model
fusion for
enhanced
accuracy

AI system with
continuous
learning and
adaptation

Feedback
mechanism for
healthcare
professionals to
fine-tune AI
models

AI Integration and Platform Development

Integrated
platform for
chest X-ray
analysis

Deploy the
model that can
be accessible
and affordable
for health care
providers

AI for
detecting
new COVID-
19 variants

Regular model
evaluation and
performance
monitoring

Data-sharing
networks for
AI model
improvement

Training
programs for
interdisciplinary
collaboration

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.



