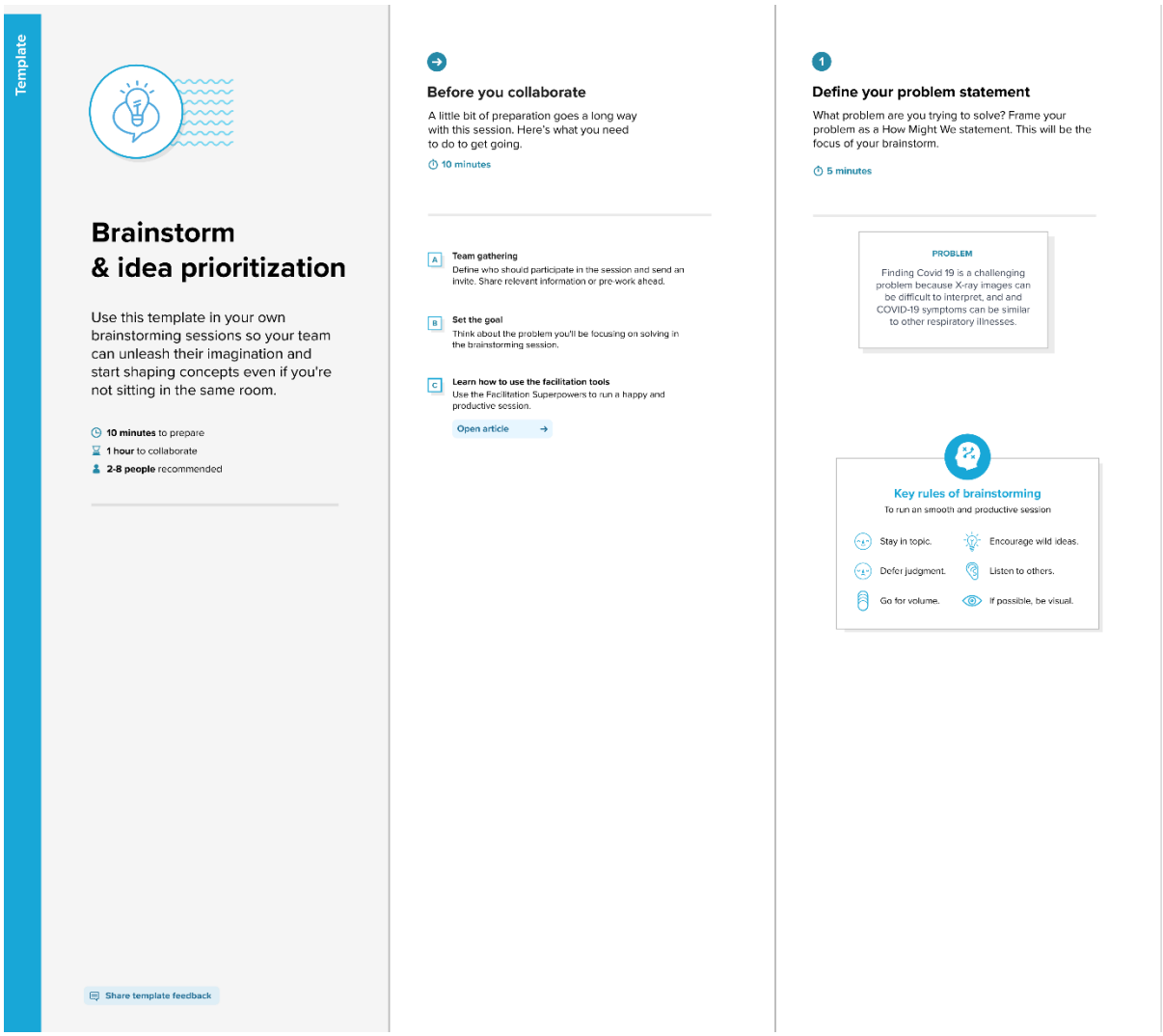
Ideation Phase
Brainstorm & Idea Prioritization Template

Date	29 April 2023
Team ID	NM2023TMID00069
Project Name	COVID-19 Detection from Lung X-rays with Deep Learnings
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



Step-2: Brainstorm, Idea Listing

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!

Abinaya

I found some research papers that use deep learning models trained with X-ray images of COVID infected

noninfected patients to predict from Covid

techniques applied to X-ray and CT-scan medical images for the detection of COVID-19

Bharathi

Another approach could be to use feature extraction techniques to extract features from the X-rays

use machine learning algorithms such as support vector machines (SVMs) .

It use to predict whether the patient has COVID-19 or not

Lokesh

You could also combine different models using an ensemble learning approach

which combines multiple models to achieve better accuracy than any single model alone

So,we Can you Transfer learning in this idea

Nithya

It's essential to have an explainable AI model that can provide insights into the decision-making process of the model

This could help doctors better understand the predictions and make informed decisions

It save time to analys

Bharathi

The accuracy and validity of the algorithms were assessed on X-ray and CT-scan well-known public datasets

The proposed methods have better results for COVID-19 diagnosis than other related in literature.

Lokesh

our work can help virologists and radiologists to make a better and faster diagnosis in the struggle against the outbreak of COVID-19

The first step in the treatment of COVID-19 is to screen patients in primary health centers or hospitals

Although the final diagnosis still relies mainly on transcription-polymerase chain reaction (PCR) tests

Abinaya

where a pre-trained model is fine-tuned on a new dataset of X-rays for COVID-19 prediction

Data augmentation techniques can be used to increase the size of the training dataset

which can improve the accuracy of the model.

Nithya

hyperparameter optimization can be used to fine-tune the model's parameters for better performance

The accuracy and validity of the algorithms were assessed on X-ray and CT-scan well-known public datasets

Step-3: Brainstorm ideas Grouping

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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.

Analys the Problem Statement

It's essential to have an explainable AI model that can provide insights into the decision-making process of the model

The accuracy and validity of the algorithms were assessed on X-ray and CT-scan well-known public datasets

where a pre-trained model is fine-tuned on a new dataset of X-rays for COVID-19 prediction

Solving the given problem

Machine learning algorithms such as support vector machines (SVMs)

You could also combine different models using an ensemble learning approach

So,we Can you Transfer learning in this Problem

our work can help virologists and radiologists to make a better and faster diagnosis in the struggle against the outbreak of COVID-19

Step-4: Idea Prioritization

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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.