

# Ideation Phase

## Brainstorm & Idea Prioritization Template

Date	13 September 2022
Team ID	PNT2022TMID17830
Project Name	Deep Learning Fundus Image Analysis for Early Detection of Diabetic Retinopathy
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

In this initial step all the team mates are gathered in the working platform of mural brainstorming. So the problem statement is understood previously in empathy map. Now brainstorming gives the feasible and ideal solutions that can be provided to avoid the disease. After gathering the members, each members are asked to propose a solution that they come across and give it's brief description at the upcoming slides.

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

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### 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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### Define your problem statement

Diabetic Retinopathy (DR) is a common complication of diabetes mellitus, which causes lesions on the retina that affect vision. If it is not detected early, it can lead to blindness. Unfortunately, DR is not a reversible process, and treatment only sustains vision. DR early detection and treatment can significantly reduce the risk of vision loss

PROBLEM

The manual diagnosis process of DR retina fundus images by ophthalmologists is time, effort and cost-consuming and prone to misdiagnosis unlike computer-aided diagnosis systems.

Transfer learning has become one of the most common techniques that has achieved better performance in many areas, especially in medical image analysis and classification



### 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

**Santhosh**

Quit alcohol intake	Lowering blood sugar	Intake of omega 3 fatty acids and fish proteins
Reduce over usage of painkillers	Intake of VEGF drugs	Drink enough water
Exercise (not touching industries)	Maintaining regular tension	Treatment of glaucoma

**Pugaienth**

Lubricate the eyes	Stop talking eyes after	Avoid cigarette
Useless, stress and avoidant foods	Manage activities and least diabetes	Avoid prolonged use of medicine
Get weekly test regularly at intervals	Proper intake of eye drops	Drinking water

**Sathish**

Reduce eye strain	Blood glucose control	Stop smoking
Wear a proper eye wear	Use proper eye glasses	Stop alcohol and cigarette
Monitor your cholesterol level	Take omega 3 fatty acids	Teamwork with experienced doctor

**Raj Kumar**

Reduce eating processed foods	Get good sleep	Avoid alcohol stress
LASIK eye surgery	Use eye exercises daily	Use any laser treatment for cataracts
Use computer with proper posture	Maintain eye pressure	Stop eating too much meat

**TIP**

You can select a sticky note and hit the pencil icon to start drawing!

### 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

#### Foods

Intake of vitamins	Omega-3 Fatty acids	Consume fishes
Leafy vegetables	Less meat intake	Citrus foods
Drinking water	Processed foods	

#### Health

Exercise	Periodic checkups	Stop touching industries
Proper intake of eye drops	Take care of eyes	Maintain glucose and sugar
Manage stress and diabetes		

#### Drugs

Avoid smoking	Avoid drinking	Protein
VEGF drugs	Proper diet intake	

#### Insulin

Proper use of insulin	Sugar intake	
Less usage of meat		

## Step-3: Idea Prioritization

