

## Ideation Phase

### Brainstorm & Idea Prioritization Template


|               |                   |
|---------------|-------------------|
| Date          | 27 September 2023 |
| Team ID       | Team-592290       |
| Project Name  | GreenClassify     |
| Maximum Marks | 6 marks           |

#### Brainstorm & Idea Prioritization:

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


GreenClassify



## 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  
4 people in Team





### 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

**Team gathering**  
Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.

**Set the goal**  
Think about the problem you'll be focusing on solving in the brainstorming session.

**Learn how to use the facilitation tools**  
Use the Facilitation Superpowers to run a happy and productive session.

[Open article](#) →

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### 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


The problem addressed in this report is the development of a robust deep learning-based system, utilizing convolutional neural networks (CNNs), for accurate and efficient classification of various vegetables in images, with applications in agriculture, food industry, and dietary analysis.





### 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.

## Step-2: Brainstorm, Idea Listing and Grouping

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### 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 icon to start drawing!

#### Khyaat

- Improve data diversity with advanced augmentation
- Apply transfer learning for faster model training
- Integrate multi-modal data for better accuracy

#### Arghya

- Develop real-time vegetable identification for sorting
- Combine CNNs with SHMs for dietary analysis
- Extend to disease and quality assessment

#### Vaibhav

- Implement multi-scale CNN architectures
- Add localization for inventory management
- Create a mobile app for on-the-go classification

#### Yash

- Handle multi-camera vegetable classification
- Enable fine-grained classification for specific varieties
- Introduce human-in-the-loop learning for model refinement

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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 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.

#### Cluster 1: Data Enhancement and Training

- Improve data diversity with advanced augmentation.
- Apply transfer learning for faster model training.

Improve data diversity with advanced augmentation

Apply transfer learning for faster model training

#### Cluster 2: Multi-Modal Integration

- Integrate multi-modal data for better accuracy.

Integrate multi-modal data for better accuracy

#### Cluster 3: Real-Time Applications

- Develop real-time vegetable classification for sorting.
- Create a mobile app for on-the-go classification.

Develop real-time vegetable classification for sorting

Create a mobile app for on-the-go classification

#### Cluster 4: Advanced Model Capabilities

- Combine CNNs with RNNs for dietary analysis.
- Extend to disease and quality assessment.
- Implement multi-scale CNN architectures.
- Add localization for inventory management.
- Handle multi-camera vegetable classification.
- Enable fine-grained classification for specific varieties.

Combine CNNs with SHMs for dietary analysis

Extend to disease and quality assessment

Implement multi-scale CNN architectures

Enable fine-grained classification for specific varieties

Add localization for inventory management

#### Cluster 5: Continuous Improvement

- Introduce human-in-the-loop learning for model refinement.

Introduce human-in-the-loop learning for model refinement

## Step-3: Idea Prioritization

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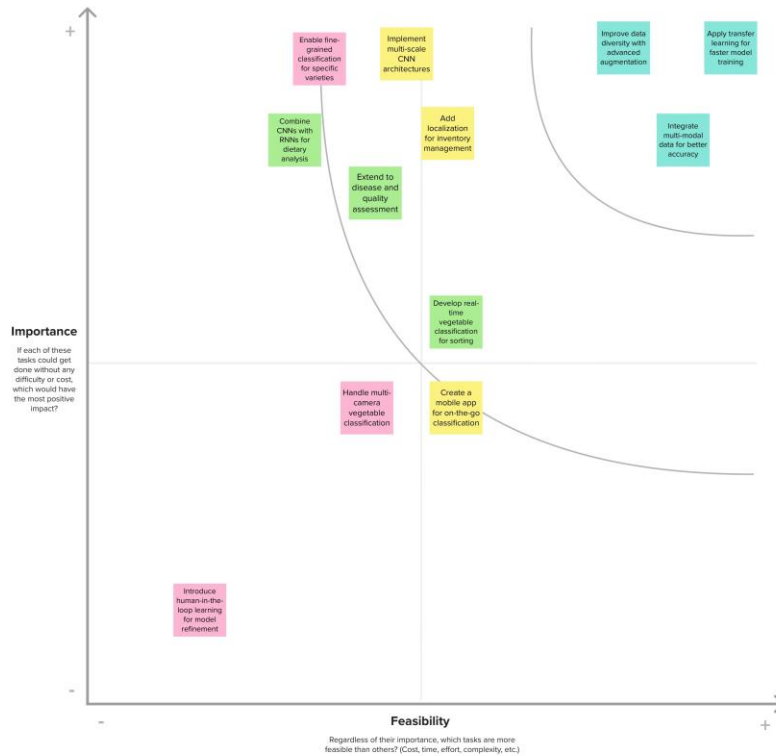
### Prioritize

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 **W** key on the keyboard.



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### 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

- A Share the mural**  
<https://app.mural.co/?smartintmgreenclassify4048/m/smartintmgreenclassify4048/1698420783046?alt=c3344e177922304a695249c3a227013716?end=uc92a7b896f61314715c4587>
- B 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 →](#)

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