

## Ideation Phase


### Brainstorm & Idea Prioritization Template

Date	25 September 2022
Team Id	Team -594379
Project-name	Green classify -deep learning based approach for vegetable image classification
maxmarks	4marks

Reference :-

<https://app.mural.co/t/greenleafclassifier9448/m/greenleafclassifier9448/1698935396716/6a01c227738db104c112e3a4459ff0abe11f5ebd?sender=u3cf797c56fc50093290b2483>

Step-1 : Team Gathering, Collaboration and Select the Problem Statement



### 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  
👥 3-8 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

- 1. **Team gathering**  
Online: get ahead participants in the session and send an invite. Share relevant information or pre-work ahead.
- 2. **Set the goal**  
Think about the problem you'll be focusing on solving in the brainstorming session.
- 3. **Learn how to use the facilitation tools**  
Use the Facilitation Superpowers to run a happy and productive session.

[Open article](#)

**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 efficient and productive session:

- Start in pairs.
- Encourage wild ideas.
- Defer judgement.
- Listen to others.
- Use the voiceless.
- If possible, be visual.

**Need some inspiration?**  
We've compiled a list of ideas generated by our users to get you started.

[Open examples](#)

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 [switch to sketch] icon to start drawing!

## Person 1

Establish  
image data  
collection  
centers

providing  
awareness camps  
for farmers,  
businesses related  
vegetable industry

creating  
different  
types of  
vegetable  
image report

provide  
nutritional  
information  
for  
recognized

## Person 2

Build an educational  
app or game that  
teaches children  
about different  
vegetables through  
image recognition

implement a  
system for  
food safety  
inspectors

Develop a  
chatbot that can  
identify from  
images and offer  
cooking tips

Smartphone  
app for  
farmers

## Person 3

Determine  
the  
freshness of  
vegetables

collaborating  
with  
environmental  
organizations

collaborating  
with  
research  
institutions

app should  
be built in  
simple  
structure

## Person 4

collaborating  
with  
research  
institutions

provide a  
service that  
automatically  
identifies  
vegetables

manually  
recognition  
of images

identify  
diseases or  
pests on  
vegetables

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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.

#### App Building for greenleafclassify

Smartphone app for farmers

app should be built in simple structure

Develop a chatbot that can identify from images and offer cooking tips

Build an educational app or game that teaches children about different vegetables through image recognition

implement a system for food safety inspectors

#### Collaboration with institutions

collaborating with environmental organizations

collaborating with research institutions

collaborating with research institutions

#### Examine the vegetable images

Establish image data collection centers

identify diseases or pests on vegetables

#### Monitoring and report

creating different types of vegetable image report

#### Awareness among the farmers

provide nutritional information for recognized

Determine the freshness of vegetables

providing awareness camps for farmers

### Step-3 : idea priporitization

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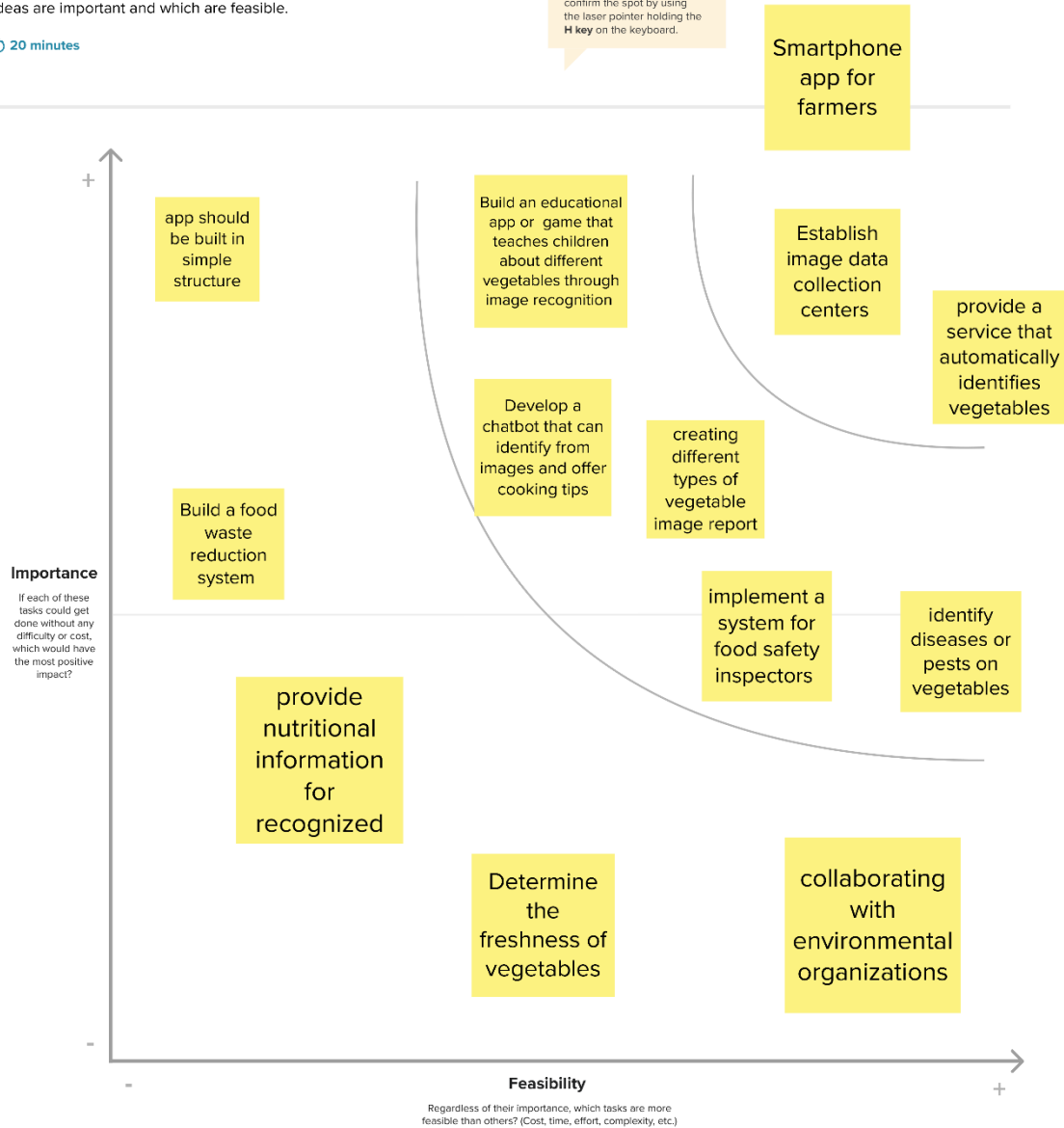
## Prioritize

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.



High Priority: The primary focus should be on developing an effective image detection algorithm, the other most critical aspect is the selection and training of the deep learning model. This could involve

traditional image processing techniques using an appropriate model like Convolutional Neural Networks (CNN) for image recognition tasks, such as color analysis, texture analysis, and shape analysis. It's also crucial to consider the accuracy, precision, recall, and F1 score of the model during evaluation. The algorithm should be able to accurately identify vegetable image

Medium Priority: The next priority is implementing this algorithm into a user-friendly mobile application.

The app should allow users to easily upload or capture images that identify and accurate diagnosis. It can become very user friendly when we have it in the offline mode so it can work in any environmental weather regardless of mobile signals which is very helpful for farmers when they are examining the pictures in any field/area along with the local languages identified by the gps treatments, it can also keep updating the reports ,if possible it will give the early warning messages as

Low Priority: Lastly, attention should be given to educating the users and marketing the app. Users need to understand how to use the app effectively and capture good quality images for analysis, to make it possible the mobile application will be made in a simple structure. The organizations will be built

and collaboration with the environmental organizations in the surroundings areas to bring awareness and helping the marketing strategy in reaching out to potential users, which are likely to be vegetables and agricultural scientists. This applications will share about the weather integration data and it keep up-

to- date about pest management to farmers and maintains the data and it secures the collected data.