

## Ideation Phase

### Brainstorm & Idea Prioritization Template


Date	15 October 2022
Team ID	PNT2022TMID33299
Project Name	Fertilizer Recommendation System for Disease Prediction
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

Template



### Fertilizer Recommendation System For Disease Prediction

Agriculture is the main aspect of country development. Many people lead their life from agriculture field, which gives fully related to agricultural products. Plant disease, especially on leaves, is one of the major factors of reductions in both quality and quantity of the food crops. In agricultural aspects, if the plant is affected by leaf disease then it reduces the growth of the agricultural level. Finding the leaf disease is an important role of agriculture preservation. After pre-processing using a median filter, segmentation is done by Guided Active Contour method and finally, the leaf disease is identified by using Support Vector Machine. The disease-based similarity measure is used for fertilizer recommendation.



#### 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.

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 →




#### Define your problem statement

Agriculture is the main source of income for the farmers but, Usage of incorrect Fertilizer for the crops in the inappropriate situation. It is getting affected by the above problem which results in loss of income.

PROBLEM


1. Identify the disease on plants using deep learning techniques and to recommend the fertilizers for reducing the diseases.


2. Provide website information for recommended fertilizer.





#### Key rules of brainstorming


To run a 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.

TIP

You can select a sticky note and hit the pencil (switch to sketch) icon to start drawing!

#### Ashok E

It reduces man power  
Identify the disease  
Website for Fertilizer recommendation  
User friendly website  
Smart solution to solve the problem  
Determining best fertilizer

#### Aravindan J

Making revolutionary changes in agriculture field  
Pre-Trained model for image classification  
Build image classification model  
Cost of using this application is less  
It simplifies the farmers work  
They can find the diseases at early stages

#### Gokulnath S

Early detection and management of problem  
Better utilization of available resources  
Deep learning based mathematical model for detecting diseases  
Improves Productivity  
Interactive user interface to upload images  
Interactive user interface to detect diseases

#### Vellaisamy c

Instant solution  
Useful to people with no prior knowledge  
Fertilizer recommendation  
It will saves time  
Admin can view the recommended fertilizer through mail  
Portal for farmers

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

#### Category 1

Identify the disease  
Cost of using this application is less  
Website for fertilizer recommendation  
Portal for farmers  
Interactive user interface to upload images  
Useful to people with no prior knowledge

#### Category 2

Build image classification model  
Pre-Trained model for image classification  
Deep learning based mathematical model for detecting diseases  
Making revolutionary changes in agriculture field  
Early detection and management of problem  
Interactive user interface to upload images

#### Category 3

Admin can view the recommended fertilizer through mail  
Instant solution  
Better utilization of available resources  
Smart solution to solve the problem  
They can find the diseases atv early stages  
Cost of using this application is less

## 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

