

Fertilizer Recommendation System for Disease Prediction

Agriculture is the most important sector in today's life. Most plants are affected by a wide variety of bacterial and fungal diseases. Diseases on plants placed a major constraint on the production and a major threat to food security. Hence early and accurate identification of plant diseases is essential to ensure high quantity and best quality. In recent years, the number of diseases on plants and the degree of harm caused has increased due to the variation in pathogen varieties, changes in cultivation methods, and inadequate plant protection techniques.

10 minutes to prepare
1 hour to collaborate
2-5 people recommended



Need some inspiration?
See a finished version of this template to kickstart your work.
[Open example](#)

Before you collaborate

10 minutes

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

5 minutes

What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

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 fertilizers.

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 visible.

Brainstorm
Write down any ideas that come to mind that address your problem statement.
10 minutes

GANDHIRAJ

- Website for Fertilizer recommendation
- Identify the disease
- Determining best fertilizer

ASHWIN SAIRAM

- Pre-trained model for image classification
- Build keras image classification model
- Making revolutionary changes in agriculture field

AKSHAYE

- Deep learning based mathematical model for detecting diseases
- Early detection and management of problem
- Better utilization of available resources

CYRIL J WILSON

- Fertilizer Recommendation
- Instant solution
- Useful to people with no prior knowledge

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

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Group ideas
Take turns sharing your ideas while clustering similar or related notes as you go. In the last 10 minutes, 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

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

Category 2

- Pre-trained model for image classification
- Deep learning based mathematical model for detecting diseases
- Build keras image classification model
- Early detection and management of problem
- Making revolutionary changes in agriculture field

Category 3

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

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

Importance
If each of these tasks could get done without any difficulty or cost, which would have the most positive impact?

Feasibility
Regardless of their importance, which tasks are more feasible than others? (Cost, time, effort, complexity, etc.)

Better utilization of available resources

Admin can view the recommended fertilizer through gmail

Pre-trained model for image classification

Website for Fertilizer recommendation

Deep learning based mathematical model for detecting diseases

They can find the diseases at early stages

Interactive user interface to upload images

Making revolutionary changes in agriculture field

Instant solution

Useful to people with no prior knowledge

Cost of using this application is less

Early detection and management of problem

It simplifies the farmers

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**
- Share the mural**
Share a view link to the mural with stakeholders to keep them in the loop about the outcomes of the session.
 - 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.
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