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 in plants placed a major constraint on 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 in 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.Agriculture is the most important sector in today's life. Most plants are affected by a wide variety of bacterial and fungal diseases. Diseases in plants placed a major constraint on 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 in 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.

1 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 brainstorming.

5 minutes

PROBLEM

1. Identify the disease on plants using deep learning techniques and recommend fertilizers to reduce the diseases.
2. Provide website information for recommended fertilizer.

Key rules of brainstorming

To run an smooth and productive session

- Stay in topic.
- Defer judgment.
- Go for volume.
- Encourage wild ideas.
- Listen to others.
- If possible, be visual.

2 Brainstorm

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

10 minutes

Bheena Dhevi V

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

Bama Devi M

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

Harshini A

Fertilizer Recommendation	Instant solution	Useful to people with no prior knowledge
Admin can view the recommended fertilizer through gmail	It will save time	Portal for farmers
	Utilizing of Resources	

Hemadharshini S

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

3 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 and 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
- Portal for farmers
- Interactive user interface to upload images
- Useful to people with no prior knowledge

Category 2

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

Category 3

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

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