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.



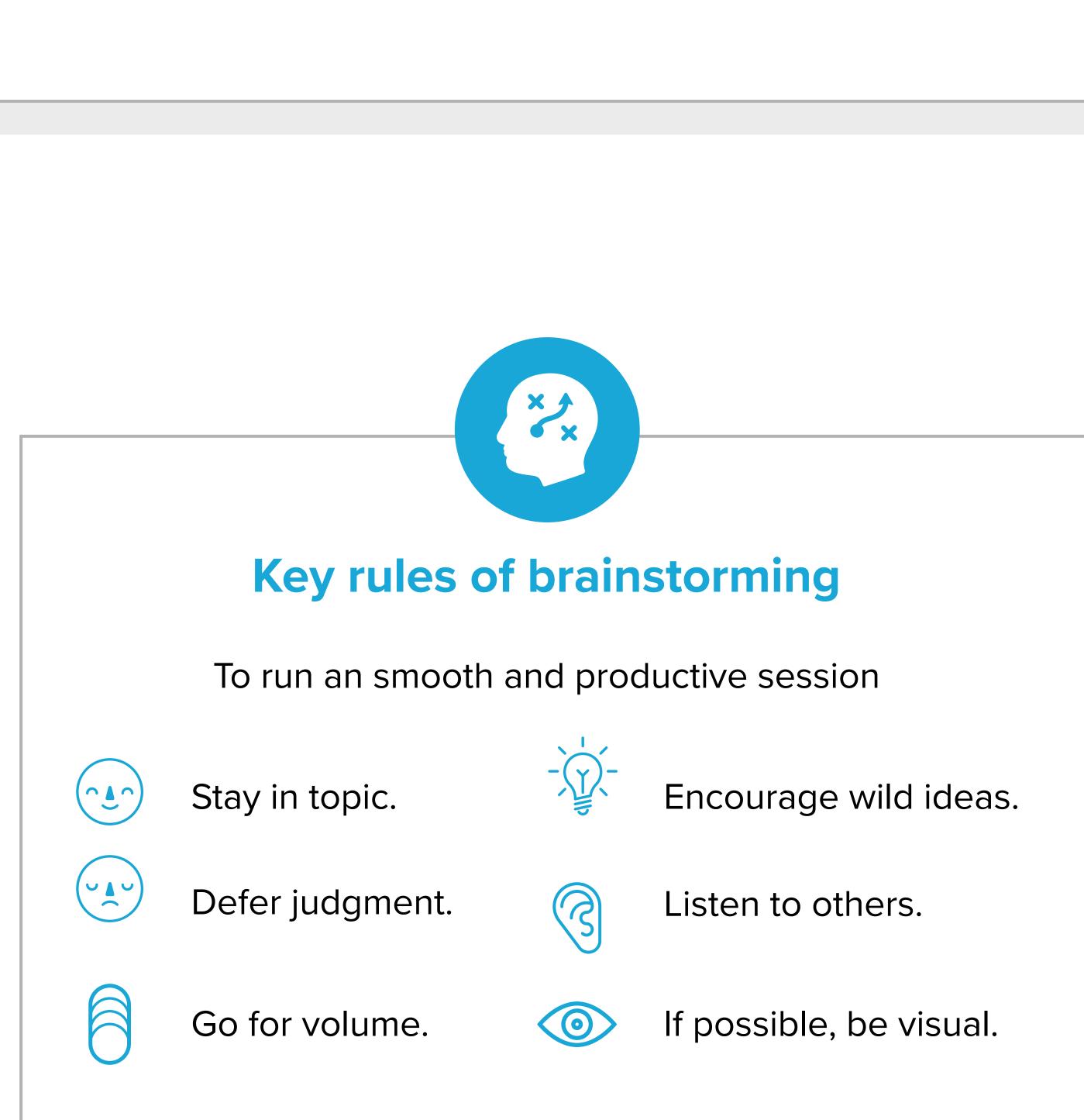
Define your problem statement

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



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.





Brainstorm

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

① 10 minutes





Group ideas

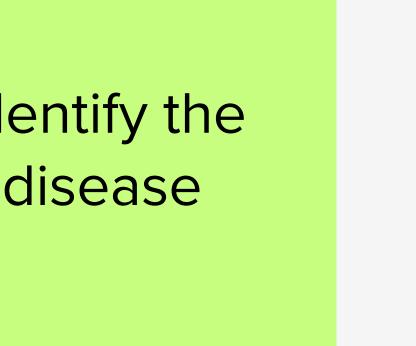
Take turns sharing your ideas while clustering similar or related notes as you go. In the last 10 minutes, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you and break it up into smaller sub-groups.

① 20 minutes





Identif



is

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 interfaction to upload images

Making
evolutionary
changes in
agriculture
feld

Early
etection and
nanagement
of problem

Cost of using

less

Category 3

Instant solution

Admin can view the recommended fertilizer through gmail

Better utilization o available resources

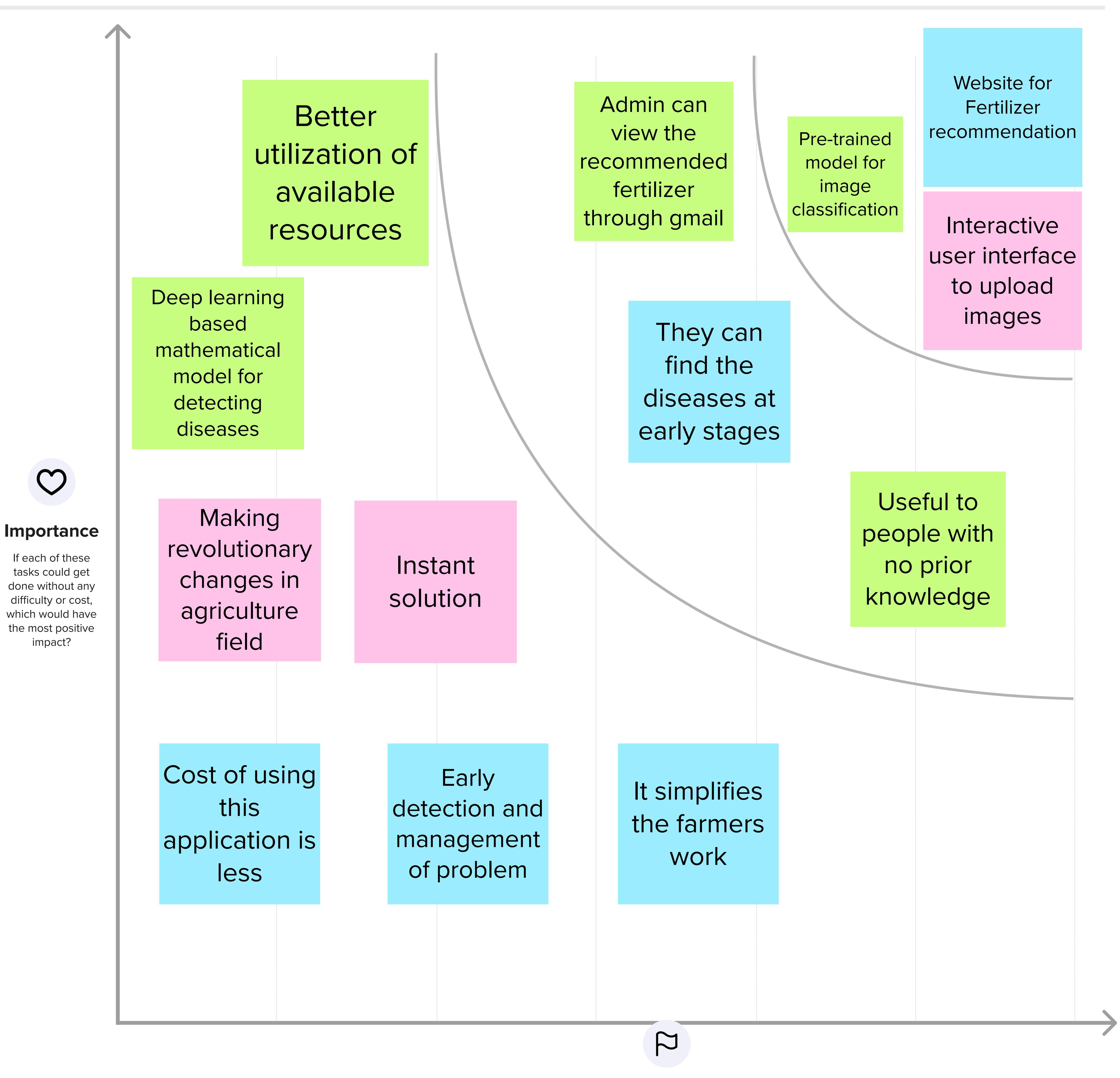
They can fnd the diseases at early stages

Smart solution to solve the problem

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.

(i) 20 minutes



Feasability

Regardless of their importance, which tasks are makes feasible than others? (Cost, time, effort, complexity,