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 brainstorm.

5 minutes

PROBLEM STATEMENT

"Developing an AI model for precise potato disease classification to enhance crop management."

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

TIP

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

Person 1

- Explore diseases caused by bacteria, such as bacterial wilt or blackleg by bacterial infections.
- Consider symptoms affecting the tubers, like rotting, deformities, or discoloration.
- imaging technologies to capture and analyze leaf or tuber images for disease detection.
- Pattern Recognition: Explore how machine learning algorithms can recognize patterns in images to identify diseases specifically the potatoes roots and tubers and their skin.
- Consider involving farmers in disease classification by collecting and crowdsourcing data on disease occurrences.

Person 2

- Consider diseases caused by fungi like late blight, early blight, and powdery scab.
- Explore ideas for recognizing symptoms on potato leaves, such as discoloration, spots, or unusual patterns.
- Explore the use of Internet of Things (IoT) devices and sensors for continuous monitoring of environmental conditions and disease progression.
- Mobile Apps: Think about creating mobile applications that utilize AI to help farmers identify diseases through photos uploaded from their smartphones.
- precision agriculture techniques can be employed for targeted treatment and prevention developing cost-effective solutions that can be accessible to small-scale farmers.

Person 3

- Look into diseases caused by viruses, like potato virus Y (PVY) or potato leaf roll virus (PLRV).
- Stem and Root Symptoms: Look into symptoms on stems and roots, including wilting, lesions, or unusual growth.
- Consider using spectral analysis tools to identify unique signatures associated with different diseases.
- Predictive Models: Consider developing predictive models that can anticipate disease outbreaks based on historical data and environmental factors.
- Explore the integration of weather data to predict disease outbreaks based on favorable conditions.

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 and 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.

Base Level recognition

Explore diseases caused by bacteria, such as bacterial wilt or blackleg by bacterial infections.

Consider diseases caused by fungi like late blight, early blight, and powdery scab.

Look into diseases caused by viruses, like potato virus Y (PVY) or potato leaf roll virus (PLRV).

Stem and Root Symptoms: Look into symptoms on stems and roots, including wilting, lesions, or unusual growth.

using sensors for classification

Consider symptoms affecting the tubers, like rotting, deformities, or discoloration.

Explore ideas for recognizing symptoms on potato leaves, such as discoloration, spots, or unusual patterns.

Explore the use of Internet of Things (IoT) devices and sensors for continuous monitoring of environmental conditions and disease progression.

Explore the integration of weather data to predict disease outbreaks based on favorable conditions.

AI and MI involved methods

Pattern Recognition: Explore how machine learning algorithms can recognize patterns in images to identify diseases specifically the potatoes roots and tubers and their skin.

Mobile Apps: Think about creating mobile applications that utilize AI to help farmers identify diseases through photos uploaded from their smartphones.

Predictive Models: Consider developing predictive models that can anticipate disease outbreaks based on historical data and environmental factors.

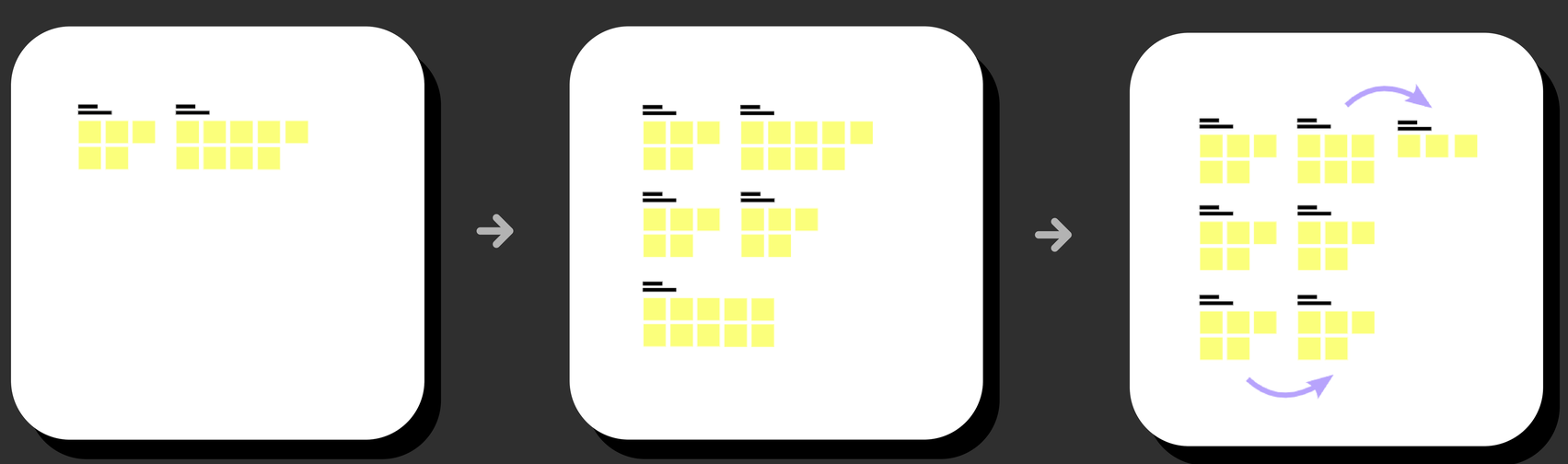
imaging technologies to capture and analyze leaf or tuber images for disease detection.

Data collection and classification methods

Consider involving farmers in disease classification by collecting and crowdsourcing data on disease occurrences.

precision agriculture techniques can be employed for targeted treatment and prevention developing cost-effective solutions that can be accessible to small-scale farmers.

Consider using spectral analysis tools to identify unique signatures associated with different diseases.



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

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.

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

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