


Ideation Phase
Brainstorming & Idea Prioritization Template

Date	31 January 2025
Team ID	PNT2025TMID01163
Project Name	Predicting plant growth stages with environmental and management data using Power BI
Maximum Marks	4 Marks




Brainstorming & Idea Prioritization

Template



Brainstorm & idea prioritization

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

-  10 minutes to prepare
-  1 hour to collaborate
-  2-8 people recommended



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.

 10 minutes

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](#)



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

Predict plant growth stages
using environmental and
management data in Power
BI.



Key rules of brainstorming

To run an smooth and productive session



Stay in topic.



Encourage wild ideas.



Defer judgment.



Listen to others.



Go for volume.



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!

Anmol Agarwal

Integrate Environmental Data: Import temperature, humidity, soil moisture, and light data for analysis.

Ansh Mittal

Predict Growth Stages: Use DAX formulas or machine learning models to predict plant growth stages (e.g., germination, vegetative, flowering).

Ashish K. Raghav

Visualize Data Trends: Use line graphs and scatter plots to visualize growth trends over time.

Ajeet Sharma

Optimize Fertilization: Predict the best fertilization schedules based on environmental conditions and plant growth stages.

Track Management Data: Incorporate irrigation, fertilization, pest/disease control, and post-harvest management schedules.

Time Series Forecasting: Apply Power BI's built-in forecasting features to predict future growth trends.

Interactive Dashboards: Build interactive dashboards with slicers for filtering by date, growth stage, or crop type.

Alert System: Set up data alerts for critical environmental thresholds, like extreme temperatures or moisture levels.

Create Growth Index: Develop a composite index combining environmental and management factors to estimate growth stage.

Regression Models: Utilize regression analysis (via DAX, Python, or R) to model relationships between environmental factors and growth stages.

Monitor Soil Moisture: Track soil moisture levels to trigger irrigation decisions and adjust growth stage predictions.

Create Growth Index: Develop a composite index combining environmental and management factors to estimate growth stage.

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

TIP

Add customizable tags to sticky notes to make it easier to find, browse, organize, and categorize important ideas as themes within your mural.

Data Integration and Management

Integrate Environmental Data: Import temperature, humidity, soil moisture, and light data for analysis.

Track Management Data: Incorporate irrigation, fertilization, planting dates, and pest control schedules.

Monitor Soil Moisture: Track soil moisture levels to trigger irrigation decisions and adjust growth stage predictions.

Prediction and Forecasting

Predict Growth Stages: Use GAN formulas or machine learning models to predict plant growth stages (e.g., germination, vegetative, flowering).

Time Series Forecasting: Apply Power BI's built-in forecasting features to predict future growth trends.

Regression Models: Utilize regression analysis (via GML, Python, or R) to model relationships between environmental factors and growth stages.

Data Visualization

Visualize Data Trends: Use line graphs and scatter plots to visualize growth trends over time.

Interactive Dashboards: Build interactive dashboards with sliders for filtering by date, growth stage, or crop type.

Compare Multiple Crops: Create line comparative charts to analyze and predict growth stages for different crops under various conditions.

Optimization and Alerts

Optimize Fertilization: Predict the best fertilization schedules based on environmental conditions and plant growth stages.

Alert System: Set up data alerts for critical environmental thresholds, like extreme temperatures or moisture levels.

Create Growth Index: Develop a composite index combining environmental and management factors to estimate growth stage.

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.





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.

[Open the template →](#)