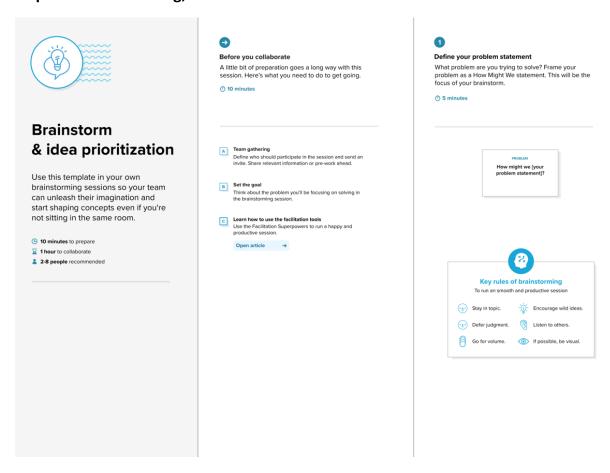
Ideation Phase Brainstorm & Idea Prioritization Template

| Date | 17 october 2022 |
|---------------|---|
| Team ID | PNT2022TMID52158 |
| Project Name | SmartFarmer - IoT Enabled Smart Farming |
| | Application |
| Maximum Marks | 4 Marks |

Brainstorm & Idea Prioritization Template:

Step-1: Team Gathering, Collaboration and Select the Problem Statement



Step-2: Brainstorm, Idea Listing and Grouping



Brainstorm

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

10 minutes

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

Benedit

The quick collection of data allows farmers to get insights fast and predict issues even before they happen

Smart farming use IoT and cellular wireless technologies for remote connectivity

Ground-based and aerial-based drones are being used in agriculture in order to enhance various agricultural It reduce the amount of waste generated and minimize the damage to the environment

It enables growers and farmers to reduce waste and enhance productivity

PIR sensor is used in burglar system also to detect if thieves have entered into an infrastructure

Ganesh

Soil moisture sensors are used to detect the water content in the soil

It helps in maximizing operational efficiency and minimizing labor costs

Farmers could monitor and apply fertilizer and weed treatments only to required areas Monitoring climatic condition allows predictive analytics to help you make better harvesting decisions

It involves accurate weather predictions along with realtime alerts

Less Consumption of Water and Energy

Sivanesh kumar

It triggers instant alerts about its health, condition, and temperature requirement, and displays all the details on the

The farmers can monitor the field conditions from anywhere

Reduced
Operation
Costs due to
automated
processes

Accurate soil data is one of the most valuable resources for farmers to grow quality crops

It will use technologies such as robots, temperature and moisture sensors, aerial images, and GPS technology

Temperaturehumidity sensors are used to monitor the weather conditions in the

vignesh

Water Level sensors are used to detect the level of substances that can flow

Sensors help in mapping fields to understand their micro-scale in orde to conserve resources such as water, fertilizer etc.

Farmers can able to identify the condition for their fields, and quickly identify pests or disease before it can damage their vield Solar powered and mobile operated pumps save cost of electricity

It simplifies and automate the functioning of farmers

Low Usage of Chemicals and better food quality



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.

(1) 20 minutes

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

SENSORS

PIR sensor is used in burglar system also to detect if thieves have entered into an infrastructure

Soil moisture sensors are used to detect the water content in the soil

Temperaturehumidity sensors are used to monitor the weather conditions in the fields Water Level sensors are used to detect the level of substances that can flow

PURPOSE

It enables growers and farmers to reduce waste and enhance productivity It helps in maximizing operational efficiency and minimizing labor costs

The farmers can monitor the field conditions from anywhere It simplifies and automate the functioning of farmers

FUTURE SCOPE

Ground-based and aerial-based drones are being used in agriculture in order to enhance various agricultural practices

It will use technologies such as robots, temperature and moisture sensors, aerial images, and Monitoring climatic condition allows predictive analytics to help you make better harvesting decisions

Solar powered and mobile operated pumps save cost of electricity

DESIGN PROCESS

Smart farming use IoT and cellular wireless technologies for remote connectivity It involves accurate weather predictions along with realtime alerts

It triggers instant alerts about its health, condition, and temperature requirement, and displays all the details on the interconnected

Sensors help in mapping fields to understand their micro-scale in order to conserve resources such as water, fertilizer etc

PROTECTION OF CROPS

The quick collection of data allows farmers to get insights fast and predict issues even before they

Accurate soil data is one of the most valuable resources for farmers to grow quality crops Farmers could monitor and apply fertilizer and weed treatments only to required areas

Farmers can able to identify the condition for their fields, and quickly identify pests or disease before it can damage their vield It reduce the

BENEFITS

amount of waste generated and minimize the damage to the environment

Reduced
Operation
Costs due to
automated
processes

Less Consumption of Water and Energy

Low Usage of Chemicals and better food quality

Step-3: Idea Prioritization



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.

① 20 minutes



Reference:

 $https://app.mural.co/t/benedit6671/m/benedit6671/1665671451272/f22cbb1ac2a980c8d7b70888\\ bcaedc060bad7689?sender=u8ba67d986bd8333155cb2150\\$