


# Ideation Phase

## Brainstorm & Idea Prioritization Template

Date	19 September 2022
Team ID	PNT2022TMID30223
Project Name	Predicting Energy Output of wind turbine based on weather condition
Maximum Marks	4 Marks

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

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

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➔

**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.

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**Define your problem statement**

To develop a novel method for predicting energy output of wind turbine based on weather condition.

⌚ 5 minutes

PROBLEM

How might we develop a novel method for predicting energy output of wind turbine based on weather condition?



### Key rules of brainstorming

To run a smooth and productive session

⌚ Stay in topic.

💡 Encourage wild ideas.

⌚ Defer judgment.

👂 Listen to others.

🗣️ Go for volume.

👁️ If possible, be visual.

## Step-2: Brainstorm, Idea Listing and Grouping

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### 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 icon to switch to sketch icon to start drawing!

#### Vishnu/Vignesh Y

Recognize weather conditions	Weather Availability	Auto Regressive Model
Change a bit in weather in energy	Available data source of weather	Testing Model from User

#### Vignesh C

LSTM Models	Python Data	Output/ Visualization
Physical Model	Design + Implementation	Future wind speed prediction

#### Praveen Kumar S

Modeling Feasibility	Analyzing the wind turbine size	Estimate power
Physical Model	Analyze the speed of turbine	Wind Direction

#### Simon Christopher P

Identifying location	Identifying the weather conditions from User	Weather Prediction
Wind power forecasting	Available Data	Power data processing

#### Suman A

Wind Direction	Date and time	Statistical Model
Future wind direction prediction	Recurrent Neural Network with LSTM	Predicting wind speed output

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### 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

### IDENTIFICATION

Future wind direction prediction		Wind power forecasting
	Identifying location	
Turbines Availability		Identifying date and time

### MODULES

Create a GUI to predict the energy		Taking Input from User
	LSTM Models	
Training of models		Auto regressive Model

## Step-3: Idea Prioritization

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### 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

