


## Ideation Phase

### Brainstorm & Idea Prioritization Template

Date	18-10-2023
Team ID	Team-592963
Project Name	Smart Home – Temperature Prediction
Maximum Marks	4 Marks
Team members	P.Sri Naga Varsha S.Guna Sekhar T. Shreyansh

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



### 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**

Trying to solve is to create an accurate and personalized temperature regulation system that utilizes machine learning to optimize energy consumption while maintaining user comfort levels. The system should address the pain points of users, such as inaccurate temperature predictions, lack of control over temperature settings, sudden temperature variations, and difficulty in understanding and interpreting ML-based predictions. The goal is to provide a comfortable and personalized experience for users while promoting energy efficiency and sustainability in smart homes.

**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

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 fit the pencil (click) to search icon to start drawing.

Varsha

Integration with Weather Forecast: Incorporate real-time weather forecast data into the ML model to improve the accuracy of temperature predictions, considering external factors that may impact indoor temperature.

Energy Optimization: Integrate energy consumption data and optimize temperature predictions to minimize energy usage while maintaining user comfort levels.

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Mobile App Integration: Develop a mobile app that allows users to remotely monitor and control the temperature settings in their homes, providing convenience and flexibility.

User Feedback Loop: Implement a feedback mechanism where users can provide feedback on the accuracy of temperature predictions, allowing the ML model to continuously improve and refine its predictions.

Voice Control: Enable voice-controlled temperature adjustments using virtual assistants like Google Assistant or Amazon Alexa, enhancing the user experience and ease of use.

Shreyansh

Smart Sensors: Utilize smart sensors throughout the home to collect real-time data on temperature, occupancy, and user behavior, enhancing the accuracy of temperature predictions.

Personalized Recommendations: Provide personalized recommendations to users on how to optimize their temperature settings based on their preferences, weather conditions, and energy efficiency goals.

Data Privacy and Security: Implement robust data privacy and security measures to protect user data and ensure the confidentiality of sensitive information collected by the ML model.

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.

Integration with Smart Home System

Enhancing Accuracy and Performance

Energy Optimization

Sensor Integration

Integration with Smart Devices

Scalability and Compatibility

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## Step-3: Idea Prioritization

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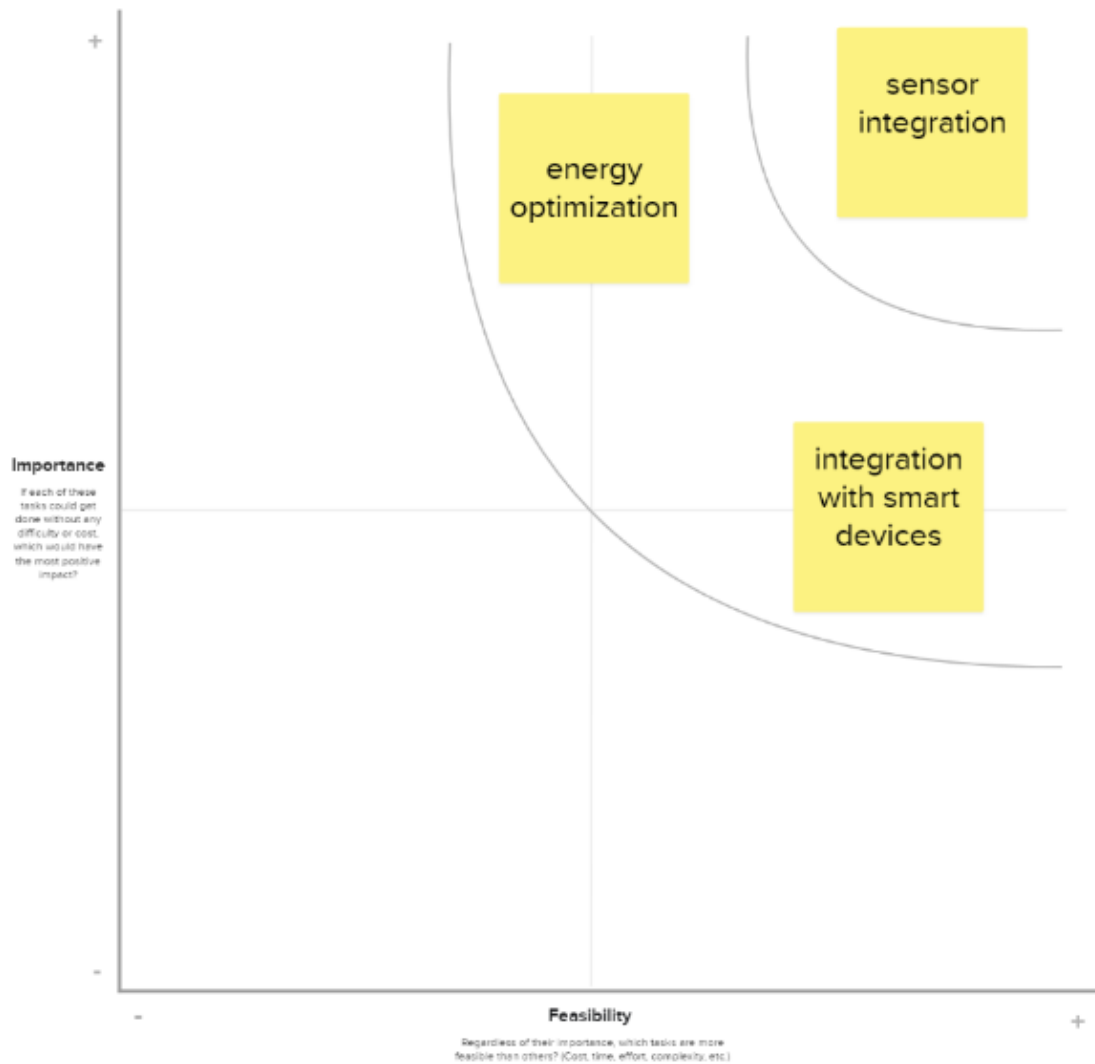
### Prioritize

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

#### 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.



LINK :

<https://app.mural.co/t/em4727/m/em4727/1698062796147/26e1e23404dbe0413fd4d82ad169f0c5ac5a706?sender=ud2db108d39aa34694c077700>