


# Ideation Phase

## Brainstorm & Idea Prioritization

Date	18 October 2022
Team ID	PNT2022TMID30996
Project Name	A NOVEL METHOD FOR HANDWRITTEN DIGIT RECOGNITION SYSTEM
Maximum Marks	4 Marks

### Brainstorm & Idea Prioritization:

#### 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

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**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

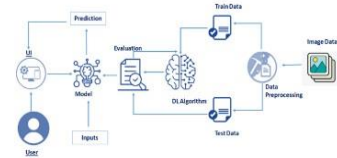
What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

🕒 5 minutes

### A Novel Method For Handwritten Digit Recognition System

Handwriting recognition is one of the compelling research works going on because every individual in this world has their own style of writing. It is the capability of the computer to identify and understand handwritten digits or characters automatically. Because of the progress in the field of science and technology, everything is being digitalized to reduce human effort. Hence, there comes a need for handwritten digit recognition in many real-time applications. MNIST data set is widely used for this recognition process and it has 70000 handwritten digits. We use Artificial neural networks to train these images and build a deep learning model. Web application is created where the user can upload an image of a handwritten digit. this image is analyzed by the model and the detected result is returned on to UI

### Technical Architecture:



```
graph LR
    User((User)) --> Input[Input]
    Input --> Model[Model]
    Model --> Prediction[Prediction]
    Model --> Evaluation[Evaluation]
    Evaluation --> Prediction
    Evaluation --> DLAlgorithm[DL Algorithm]
    DLAlgorithm --> DataPreprocessing[Data Preprocessing]
    DataPreprocessing --> ImageData[Image Data]
    ImageData --> TrainData[Train Data]
    TrainData --> Model
```

## 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**

We can select a sticky note and hit the pencil icon to sticky on it to not losing.

### 3 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 can break it up into smaller sub-groups.

20 minutes

**TIP**

Add custom page tags to sticky notes to make it easier to find, to mark, to delete, and to categorize them. Even as you go and to your mind.

**RANJITH M**

Handwritten notes on yellow sticky notes.

**SAKTHIDHARI B**

Handwritten notes on red sticky notes.

**MUHLAN P**

Handwritten notes on blue sticky notes.

**PANNEER SELVAM B**

Handwritten notes on purple sticky notes.

## Step-3: Idea Prioritization

### 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

**Importance**

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

**Feasibility**

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