


# Ideation Phase

## Brainstorm & Idea Prioritization Template




Date	18 October 2022
Team ID	PNT2022TMID12314
Project Name	A Novel Method for Handwritten Digit Recognition System
Maximum Marks	4 Marks

### 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

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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

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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.

[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

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**PROBLEM**


**A Novel Method for Handwritten Digit Recognition**


Handwriting recognition is a challenging task because every person in this world has their own style of writing. It is the capability of the computer to automatically identify and understand the handwritten digits. Due to the technological advancements, everything is being digitalized to reduce human effort. Hence, handwritten digit recognition is a need-of-the-hour task in many real-time applications. MNIST data set, which has 70000 handwritten digit samples, is widely used for this recognition process.


**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.

## 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

#### Nithiyashree M G

- Mainly used in number plate detection
- The number must be dark enough
- display accuracy of detection
- Digit as output
- digits of different style recognised

#### Rizwana S

- Only the numeric character should be darkened in the image
- The handwriting must be legible
- DNN Algorithm can be used
- low time consumption
- Enhanced dataset should be used

#### Sharmila

- Online and Offline detection is available
- Variation in character styles
- Feedback should be enabled
- high accuracy
- DBN Algorithm can be used

#### Vijayadharshini

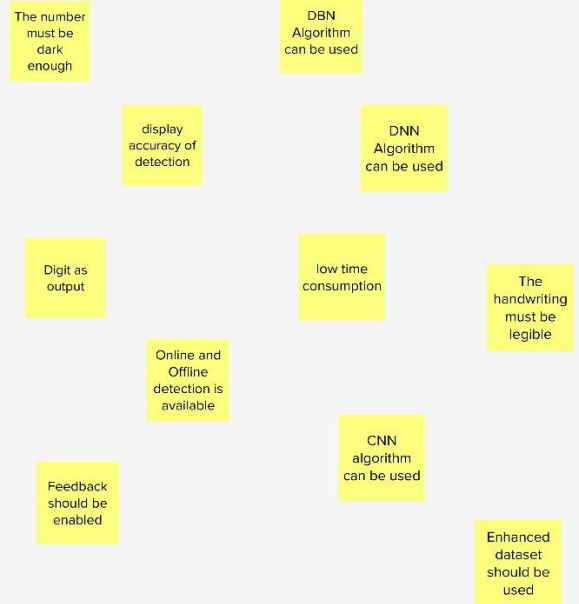
- CNN algorithm can be used
- convert the text digits into electrical form
- image as output
- Keras library can be used
- Accuracy should be displayed

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



## 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

