

# Ideation Phase

## Brainstorm & Idea Prioritization

Date	04 October 2022
Team ID	PNT2022TMID52735
Project Name	A Novel Method for Hand Written Digit Recognition
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

- 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

**PROBLEM**

It is the hard task for the machine because handwritten digits are not perfect and can be made with many different flavours(styles). The handwritten digit recognition is the solution to this problem which uses the image of a digit and recognizes the digit present in the image. The digits ranges from 0 to 9.

**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

**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 not the pencil (switch to pastel) icon to start drawing!

**Person 1**

- Handwritten digit recognition is a hard task for the machine because handwritten digits are not perfect and can be made with many different flavours(styles).
- The handwritten digit recognition is the solution to this problem which uses the image of a digit and recognizes the digit present in the image. The digits ranges from 0 to 9.
- The handwritten digit recognition is the solution to this problem which uses the image of a digit and recognizes the digit present in the image. The digits ranges from 0 to 9.
- The handwritten digit recognition is the solution to this problem which uses the image of a digit and recognizes the digit present in the image. The digits ranges from 0 to 9.

**Person 2**

- Handwritten digit recognition is a hard task for the machine because handwritten digits are not perfect and can be made with many different flavours(styles).
- The handwritten digit recognition is the solution to this problem which uses the image of a digit and recognizes the digit present in the image. The digits ranges from 0 to 9.
- The handwritten digit recognition is the solution to this problem which uses the image of a digit and recognizes the digit present in the image. The digits ranges from 0 to 9.
- The handwritten digit recognition is the solution to this problem which uses the image of a digit and recognizes the digit present in the image. The digits ranges from 0 to 9.

**Person 3**

- Handwritten digit recognition is a hard task for the machine because handwritten digits are not perfect and can be made with many different flavours(styles).
- The handwritten digit recognition is the solution to this problem which uses the image of a digit and recognizes the digit present in the image. The digits ranges from 0 to 9.
- The handwritten digit recognition is the solution to this problem which uses the image of a digit and recognizes the digit present in the image. The digits ranges from 0 to 9.
- The handwritten digit recognition is the solution to this problem which uses the image of a digit and recognizes the digit present in the image. The digits ranges from 0 to 9.

**Person 4**

- Handwritten digit recognition is a hard task for the machine because handwritten digits are not perfect and can be made with many different flavours(styles).
- The handwritten digit recognition is the solution to this problem which uses the image of a digit and recognizes the digit present in the image. The digits ranges from 0 to 9.
- The handwritten digit recognition is the solution to this problem which uses the image of a digit and recognizes the digit present in the image. The digits ranges from 0 to 9.
- The handwritten digit recognition is the solution to this problem which uses the image of a digit and recognizes the digit present in the image. The digits ranges from 0 to 9.

**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

Feature extraction is not scalable

Training sets are used to train the network

With advent of deep learning some tremendous improvements in accuracy of handwritten recognition

GUI for easy visualization

Used to augment the existing dataset

Manual feature extraction limits the performance of artificial intelligence

Requires lot of data to train while clustering huge amount of handwritten images for different languages is a cumbersome task

## 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

