

Ideation Phase

Problem Statements

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| Date | 19 September 2022 |
| Team ID | PNT2022TMID42634 |
| Project Name | A Novel method for handwritten digit recognition system |
| Maximum Marks | 2 Marks |

Problem Statement:

- The problem statement is to classify handwritten digits. The goal is to take an image of a handwritten digit and determine what that digit and character is.
- It is easy for the human to perform a task accurately by practicing it repeatedly and memorizing it for the next time. Human brain can process and analyse images easily. Also, recognize the different elements present in the images.
- the goal is to correctly identify digits from a dataset of tens of thousands of handwritten images and experiment with different algorithms to learn first-hand what works well and how techniques compare.
- The handwritten digit recognition is the capability of computer applications to recognize the human handwritten digits. It is a hard task for the machine because handwritten digits are not perfect and can be made with many different shapes and sizes.
- The handwritten digit recognition system is a way to tackle this problem which uses the image of a digit and recognizes the digit present in the image. Convolutional Neural Network model created using Python library over the MNIST dataset to recognize handwritten digits.
- Handwriting number recognition is a challenging problem researchers had been research into this area for so long especially in the recent years.

| Problem Statement (PS) | I am (Customer) | I'm trying to | But | Because | Which makes me feel |
|------------------------|-----------------|--------------------|---------------------------------------|--------------------------------------|---------------------|
| PS-1 | Bank customer | Filling the cheque | The system cant find the hand writing | Hand written digits are not perfect. | Disappointed. |