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.

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| **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. |