

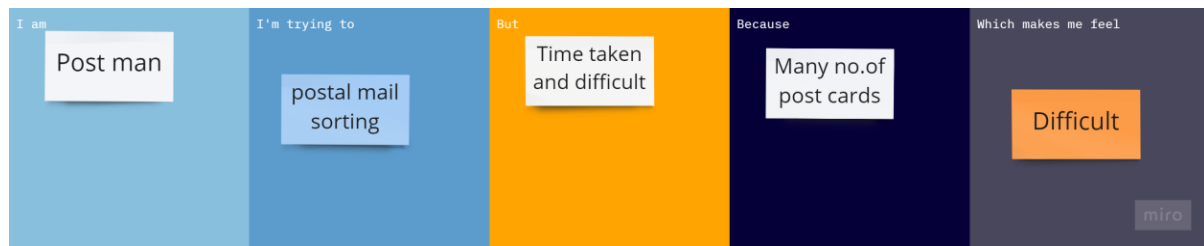
Ideation Phase

Define the Problem Statements

Date	19 September 2022
Team ID	PNT2022TMID27796
Project Name	Project – A Novel Method of Handwritten Digit Recognition
Maximum Marks	2 Marks

Customer Problem Statement:

Character handwriting recognition has been around since the 1980s. Handwritten digit recognition using a classifier offers a wide range of applications, including digital digit recognition on PC devices, recognising zip codes on mail, handling bank cheque amounts, numeric portions in structures filled out by hand (for example, tax forms), and so on. There are several difficulties encountered while attempting to address this problem. The digits are not necessarily the same height, width, orientation, or location with respect to the margins. The primary goal was to implement a pattern characterisation approach for perceiving handwritten digits using the MNIST data collection of photographs of handwritten digits (0 - 9). Machine Learning provides a variety of approaches for reducing human effort in detecting manually typed numbers. Deep Learning is a technology that educates computers to do what people do naturally: learning via examples. Human efforts in seeing, learning, recognising, and many other areas can be reduced by using deep learning approaches. The machine learns to do classification tasks from images or the text of any document using deep learning. Models using deep learning can achieve state-of-the-art accuracy, outperforming humans.



Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1	Post man	Postal mail sorting	Time taken and difficult	Many no. of post cards	Difficult
PS-2	Bank worker	Bank check processing	Time taken and not understand	Unique styles of handwritten of digit by customers	Irritating
PS-3	Data entry operator	Data entry	It's difficult	It's takes long time to enter the data	Heavy burden
PS-4	Traffic police	Address traffic infractions on roads	It's quick	Vehicles moves very fast	Annoyed
PS-5	Billing manager	Manage all activities in billing process	it's difficult	It's takes long time to enter the data	Worried