**Ideation Phase**

**Define the Problem Statements**

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| --- | --- |
| Date | 19 September 2022 |
| Team ID | PNT2022TMID21352 |
| Project Name | Project – A Novel Method for Handwritten Digit Recognition System |
| Maximum Marks | 2 Marks |

**Customer Problem Statement:**

Handwritten digit recognition is very important as it will be very helpful to reduce human effort. As each individual has different handwritings for representing digits, the system should have a capability to identify every handwriting with maximum accuracy. Such a system will be useful to reduce human interventions in identification, as everything is being digitized. The main objective of this work is to ensure effective and reliable approaches for recognition of handwritten digits and make banking operations easier and error free. Handwriting recognition has gained a lot of attention in the field of pattern recognition and machine learning due to its application in various fields. Various techniques have been proposed to for digit recognition in handwriting recognition system.

The user has to just handwrite using the fingers on the smart screen of mobile of PC and the software of the device must be able to identify the handwriting. There should also be the feature of producing text out of the recognized contents and the user must be able to copy the contents and paste it to the desired locations.

Reference: <https://miro.com/templates/customer-problem-statement/>

**Problem Statements:**

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| **Problem Statement (PS)** | **I am (Customer)** | **I’m trying to** | **But** | **Because** | **Which makes me feel** |
| PS-1 | Android users | Type texts in documents | It takes a lot of time and there occurs a lot of errors | Many users are not fluent in typing and the typing is error some | Exhausted |
| PS-2 | Research scholars | Type the entire research paper from handwritten notes | It takes a lot of time and the results are not so accurate | Humans make mistakes sometimes | Frustrated |
| PS-3 | Archaeologist | From the antiques, they can recognize the exact text from the engravings | They could not recognize the exact text from the engravings at times. | The engravings are very old, broken and the archaeologist may not know the exact language written in the antique. | They may fail in research and may lost the contents present in those engravings |