**PROBLEM - SOLUTION FIT:**
**PROJECT NAME :** A NOVEL METHOD FOR HANDWRITTEN DIGIT RECOGNITION SYSTEM
**TEAM ID :** PNT2022TMID24646

1. **CUSTOMER SEGMENT(S):**
   Our project is useful for the customers those who are facing difficulties with understanding the handwritten digits. These customers are present in the places like schools, colleges, hospitals, post offices , etc.

2. **JOBS-TO-BE-DONE / PROBLEMS :**
   Handwritten digits are not perfect and can be made with many different styles. So it is difficult to understand every handwriting and it may lead to errors.

3. **TRIGGERS:**
   Effectively extracting accurate handwritten digits from the image.

4. **EMOTIONS - BEFORE and AFTER:**
   Before – Worried and confused about the handwritten digits.
   After – Easily classified those handwritten digits.

5. **AVAILABLE SOLUTIONS :**
   There is no particular solution for recognizing handwritten digits but we some applications like Google lens which will predict everything.

6. **CUSTOMER CONSTRAINTS:**
   They might think that it won't recognize the digits correctly.

7. **BEHAVIOUR:**
   The customers try to predict the handwritten digits by giving the image to the software and check the accuracy by checking whether the predicted digits are correct.

8. **CHANNELS OF BEHAVIOUR:**
   Utilizing the software that is offered in the online market. Enlisting the

assistance of nearby people in order to identify the numbers that their clients have scribbled.

9. **PROBLEM ROOT CAUSE:**

Because handwritten number recognition is not an optical character recognition, there are numerous difficulties due to the wide variety of writing styles used by different people. Customers find it difficult to read the handwritten digits as different people use different writing styles and different languages. This investigation offers a thorough comparison of various deep literacy and machine literacy algorithms for handwritten number recognition.

10. **SOLUTION:**

A novel method for handwritten digit recognition system helps in recognizing the handwritten digits that uses MNIST dataset for training the model. The model gets the image of the handwritten digit and recognizes the handwritten digit. Convolution neural networks algorithm is used over the MNIST dataset to recognize the handwritten digits.