## Project Title: A Novel Method for Handwritten Digit Recognition System

# Define CS, fit into CC

# 1. CUSTOMER SEGMENT(S)



J&P

- Fintech Industries
- Supply Chain Management
- Medical data Transcriptions
- Scientific and Space Research

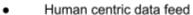
### 2. CUSTOMER CONSTRAINTS



- Speed and Accuracy of the system
- Size of the vocabulary
- Spatial layout
- Lack of feedback-based system

### 3. AVAILABLE SOLUTIONS







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Explore AS, differentiate

#### 4. JOBS-TO-BE-DONE / PROBLEMS

- To design a system that recognizes a wide range of handwriting scripts
- ML based approach to identify the character quickly and accurately
- Adaptive learning module to learn from its own instances and gets updated

#### 5. PROBLEM ROOT CAUSE



- In cases where distinct characters look very similar making it hard for a computer to recognize it accurately.
- Different styles of cursive handwriting is another challenge that requires a support system based on vocabulary

# 6. BEHAVIOUR



- In handwriting recognition (HWR), the module interprets the user's handwritten script into an appropriate digital format s
- Provision for real-time handwritten update in case if the application used by fixed and same users
- Know the market trends and adapt accordingly

# 7. TRIGGERS



- Longer and more in scale, the system understood better
- With its rich vocabulary, it has a support system to autofill the suggestions based on user input

#### 8. EMOTIONS: BEFORE / AFTER



- Before: Sometimes character look similar so digit identification process is tedious and time consuming.
- Also, inaccurate sometimes. . After: Using deep learning, identification is faster and relatively more accurate.

#### 9. YOUR SOLUTION



- Deep learning.
- Intelligent feedback and support system based on neural network making the system more robust

#### 10. CHANNELS of BEHAVIOUR



#### 1. ONLINE

 online handwriting recognition consists of interpreting handwriting represented either by the trajectory of the pen or by scanning the script

#### 2.OFFLINE

 Offline handwriting recognition consists of interpreting the handwritten scanned document.