Project Title: A Novel method for Handwritten Digit Recognition System

project Design Phase-I - Solution Fit Template **Team ID:PNT2022TMID09888**

Define CS, fit into CC

1. CUSTOMER SEGMENT(S) CS

Customer who need to identify the digit from handwritten form

6. CUSTOMER CONSTRAINTS CC

It requires much more computation than more standard OCR techniques

5. AVAILABLE SOLUTIONS AS

Handwritten digit recognition using MNIST dataset is a major project made with the help of Neural Network.It basically detects the scanned images of handwritten digits

Explore AS, differentiate

Focus on J&P, tap into BE, understand RC

2. JOBS-TO-BE-DONE / PROBLEMS J&P

Diffferent people handwriting varies from each other and they struggle to identify

9. PROBLEM ROOT CAUSE RC

From the number 0 to 9 it's shapes and design are vary.Further according to individual person their handwriting also varies.Thus this handwritten digit recognition is needed

7. BEHAVIOUR BE

The output of an OCR run for an clear image and comparing it to the original version of the same text gives good accuracy

Focus on J&P, tap into BE, understand RC

Identify strong TR & EM

3. TRIGGERS TR

While they recognition the handwritten digit

4. EMOTIONS: BEFORE / AFTER EM

Dilemma,exhausted into satified ,hopeful and comfort

10. YOUR SOLUTION SL

Neural Network is used to recognise and predict the handwritten digits.Dataset are trained using gradient descent back propagation algorithm and tested using the feed forward algorithm.

Observing the system performance with variation of number of hidden units and iteration.Using this method, digits recognised and its accuracy will be high upto 99% .So we get good output

8.CHANNELS of BEHAVIOUR CH

8.1.ONLINE

Here extract from block

8.2.OFFLINE

Here extract from different user for handwriting

Extract online & offline CH of BE