Project Title: A Novel Method for Handwritten Digit Recognition System

Project Design Phase-I - Solution Fit Template

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Define CS, fit into CC

1. CUSTOMER SEGMENT(S) — CS

- Person who are at industry side for recognizing various handwriting digits.
- People working in bank, post offices

6. CUSTOMER CONSTRAINTS — CC

- Time
- Accuracy
- Ease to access
- Imperfect findings

5. AVAILABLE SOLUTIONS — AS

- In past they get trouble in finding handwritten digits
- Using this system, they can resolve this type of problems
- Pros of this system is quick recognition and
- Accurate prediction
- Cons are network connection is mandatory for using this system
- For using this system Knowledge about the system is required

Explore AS, differentiate

Focus on J&P, tap into BE, understand

Identify strong TR & EM

2. JOBS-TO-BE-DONE / PROBLEMS — J&P

- There are different types of handwriting are in world.
- Each and every handwriting has its own characteristics and uniqueness. Its difficult to understand the different people's handwriting digit.

9. PROBLEM ROOT CAUSE — RC

- Not everyone can understand everyone's handwriting
- The handwriting is differed from person to person
- So, it is difficult to recognize the digits
- To solve this problem this system has developed

7. BEHAVIOUR — BE

To address the problem, they can take a snap of the handwritten digit and upload it in the software

Focus on J&P, tap into BE, understand

Identify strong TR & EM

3. TRIGGERS TR

- By word of mouth
- Good user experience

4. EMOTIONS: BEFORE / AFTER EM

- It is a quite irritating and frustrating while manually convert the handwritten digits
- • By using our system, user can save the time and reduce the error occur on recognition

10. YOUR SOLUTION SL

- 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 digits and recognizes the handwritten digits.
- CNN algorithm is used over the MNIST dataset to recognize the handwritten digits.

8. CHANNELS of BEHAVIOUR CH

8.1 ONLINE

In online they can upload the handwritten picture and yield output

8.2 OFFLINE

In offline they can ask their neighbors to scribble the digits to find them