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 handwrittendigits
- • By using our system, user can save thetime and reduce the error occur on recognition

10. YOUR SOLUTION SL

- A novel method for handwritten digit recognition system helps in recognizing the handwritten digitsthat uses MNIST dataset for training the model.
- The model gets the image of the handwritten digits and recognizesthe handwritten digits.
- CNN algorithm is used over the MNIST dataset to recognize the handwritten digits.

8. CHANNELS of BEHAVIOUR

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8.1 ONLINE

In online they can upload the handwritten picture and yield output

8.2 OFFLINE

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