Define CS, fit into CC

1. CUSTOMER SEGMENT(S)   CS

Who is your customer?
i.e. working parents of 0-5 y.o. kids

> Reader , Writer ,And Postal employee.

6. CUSTOMER CONSTRAINTS   CC

What constraints prevent your customers from taking action or limit their choices of solutions? i.e. spending power, budget, no cash, network connection, available devices.

> Sometimes characters look very similar,making it hard for a computer to recognize accurately.joined up handwritting is another challenge for computers.

5. AVAILABLE SOLUTIONS   AS

Which solutions are available to the customers when they face the problem
or need to get the job done? What have they tried in the past? What pros & cons do these solutions have? i.e. pen and paper is an alternative to digital notetaking

> It's based on the Shape analysis of the digit image and extract slant or slope information.

Explore AS, differentiate

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

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

Which jobs-to-be-done (or problems) do you address for your customers? There could be more than one; explore different sides.

> We can make a system that will recognize the handwriting from image and display in text.

> Handwritten digit recognition problem can be seen as a subtask of optical character recognition (OCR) problem.

9. PROBLEM ROOT CAUSE   RC

What is the real reason that this problem exists?
What is the back story behind the need to do this job?
i.e. customers have to do it because of the change in regulations.

> Letter may not be as easily recognized and possibly cause false and incorrect information being processed.

7. BEHAVIOUR   BE

What does your customer do to address the problem and get the job done?
i.e. directly related: find the right solar panel installer, calculate usage and benefits; indirectly associated: customers spend free time on volunteering work (i.e. Greenpeace)

> This data can be anything from text and images to sound or other definable qualities.

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

Identify strong TR & EM

4. EMOTIONS: BEFORE / AFTER   EM

How do customers feel when they face a problem or a job and afterwards?
i.e. lost, insecure > confident, in control - use it in your communication strategy & design.

> Handwriting analysis is the technique used to understand a person in a better way through his/her handwriting.

If you are working on a new business proposition, then keep it blank until you fill in the canvas and come up with a solution that fits within customer limitations, solves a problem and matches customer behaviour.

> Hand written digit recognition has various real life time users.it is used in the detection of vehicle number , banks for reading cheques,post officers for arranging letter ,and many other task.

8.2 OFFLINE

What kind of actions do customers take offline? Extract offline channels from #7and use them for customer development.

> MNIST is one of the most popular entry level datasets in computer vision. It's contain thousands of images of handwritten digits.

Identify strong TR & EM