

# Project Design Phase-I

## Solution Fit Template

**Project Title:** A Novel method of handwritten digit recognition

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Problem-Solution fit canvas 2.0		Purpose / Vision		
Define CS, fit into CC	1. CUSTOMER SEGMENT(S) <span>CS</span>  <i>One who wants to extract digits from handwritten text images</i>	6. CUSTOMER CONSTRAINTS <span>CC</span>  <i>Unclear image will not give accurate results.</i>	5. AVAILABLE SOLUTIONS <span></span>  <i>Traditional systems of handwriting recognition have relied on handcrafted feature and a large amount of prior knowledge.</i>	Explore AS, differentiate
	2. JOBS-TO-BE-DONE / PROBLEMS <span>J&amp;P</span>  <i>People can struggle to read others' handwriting. The handwritten digits are not always of the same size, width, orientation as they differ from writing of person to person, so the general problem would be while classifying the digits.</i>	9. PROBLEM ROOT CAUSE <span>RC</span>  <i>The issue is that there's a wide range of handwriting - good and bad. This makes it tricky for programmers to provide enough examples of how every character might look.</i>	7. BEHAVIOUR <span>BE</span>  <i>Customers must try with clear image and neat handwriting to get accuracy in digits</i>	
Focus on J&P, tap into BE, understand RC	3. TRIGGERS <span>TR</span>  <i>When there is need for recognition of handwritten digits</i>	10. YOUR SOLUTION  <i>It uses Artificial Neural Network to recognize them. Neural Network is used to train and identify written digits. After training and testing, the accuracy rate reached 99%. This accuracy rate is very high.</i>	8. CHANNELS of BEHAVIOUR <span>CH</span>  8.1 ONLINE <i>Extract online channels from behaviour block</i>	Focus on J&P, tap into BE, understand RC
	4. EMOTIONS: BEFORE / AFTER <span>EM</span>  <i>frustration, exhausted &gt; curious, satisfied</i>		8.2 OFFLINE <i>Extract offline channels from different handwriting styles</i>	
Identify strong TR & EM				Extract online & offline CH of BE