

## Project Design Phase-I - Solution Fit Template

Project Title: HEALTH CARE STSTEM

Team ID: PNT2022TMID54247

Problem-Solution fit canvas 2.0		Purpose / Vision	
Define CS, fit into CC	<b>1. CUSTOMER SEGMENT(S)</b> <small>Who is your customer? i.e. working parents of 0-5 y.o. kids</small>  ➤ PATIENTS ➤ HOSPITAL MANAGEMENT	<b>6. CUSTOMER CONSTRAINTS</b> <small>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.</small>  Customers require more accurate and early predictions of Length of Stay (LOS).	<b>5. AVAILABLE SOLUTIONS</b> <small>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 &amp; cons do these solutions have? i.e. pen and paper is an alternative to digital notetaking</small>  There are few <u>Length</u> of Stay prediction model available which lacks in predicting some exceptional case where the length of stay may extend.
	Focus on J&P, tap into BE, understand RC	<b>2. JOBS-TO-BE-DONE / PROBLEMS</b> <small>Which jobs-to-be-done (or problems) do you address for your customers? There could be more than one; explore different sides.</small>  Length of stay prediction may vary based on the patient's stage/severity of disease. Patient may get dissatisfied if there is no bed availability	<b>9. PROBLEM ROOT CAUSE</b> <small>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.</small>  Unpredictable length of stay and improper medical records are the root cause of the problem.
Identify strong TR & EM		<b>3. TRIGGERS</b> <small>What triggers customers to act? i.e. seeing their neighbour installing solar panels, reading about a more efficient solution in the news.</small>  To accurately predict the length of stay.	<b>10. YOUR SOLUTION</b> <small>If you are working on an existing business, write down your current solution first, fill in the canvas, and check how much it fits reality. 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.</small>  Our solution includes using algorithms like Fuzzy Logic, Tree Bagger, Random Forest, and Decision Trees to predict the length of stay more accurately. Gives frequent update about the bed availability.
		<b>4. EMOTIONS: BEFORE / AFTER</b> <small>How do customers feel when they face a problem or a job and afterwards? i.e. lost, insecure &gt; confident, in control - use it in your communication strategy &amp; design. Before: Patients often get frustrated and depressed. After: They feel better and get new beginning.</small>	