

## Project Design Phase-I

### Problem – Solution Fit Template

Date	5 NOV 2022
Team ID	PNT2022TMID08567
Project Name	DETECTING PARKINSONS DISEASE USING MACHINE LEARNING
Maximum Marks	2 Marks

#### Problem – Solution Fit Template:

The Problem-Solution Fit simply means that you have found a problem with your customer and that the solution you have realized for it actually solves the customer's problem. It helps entrepreneurs, marketers and corporate innovators identify behavioral patterns and recognize what would work and why

#### Purpose:

- ☐ Solve complex problems in a way that fits the state of your customers.
- ☐ Succeed faster and increase your solution adoption by tapping into existing mediums and channels of behavior.
- ☐ Sharpen your communication and marketing strategy with the right triggers and messaging.
- ☐ Increase touch-points with your company by finding the right problem-behavior fit and building trust by solving frequent annoyances, or urgent or costly problems.
- ☐ **Understand the existing situation in order to improve it for your target group.**

#### Template:

Problem-Solution fit canvas 2.0

Detecting Parkinson's Disease using Machine Learning - PNT2022TMID39642

Define CS, fit into	1. CUSTOMER SEGMENT(S) <small>Who is your customer? i.e. working parents of 0-5 y.o. kids</small>	6. CUSTOMER <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>	5. AVAILABLE SOLUTIONS <small>Which solutions are available to the customers when they face the problem?</small>	Explore AS.
	<ul style="list-style-type: none"> <li>Customers who are affected by Parkinsons Disease.</li> <li>Customers who feel or doubt that they might have Parkinsons Disease.</li> </ul>	<ul style="list-style-type: none"> <li>Previously before in the primary method the detection of the Parkinsons disease cannot be found without the help of doctors.</li> </ul>	<ul style="list-style-type: none"> <li>The existing solution does not provide the exact accuracy of affected people.</li> <li>Using the ML approaches various classifiers produce various results.</li> </ul>	
Focus on J&P, tap into BE, understand	2. JOBS-TO-BE-DONE / PROBLEMS <small>Which jobs-to-be-done (or problems) do you address for your customers? There could be more than one, explore different sides.</small>	9. PROBLEM ROOT CAUSE <small>What is the real reason that the 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>	7. BEHAVIOUR <small>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)</small>	Focus on J&P, tap into BE, understand
	<ul style="list-style-type: none"> <li>Our project helps the customers to detect Parkinson's disease in the early stage and the exact percentage affected by the disease can be viewed</li> <li>Our goal for the customers is to quantify the visual appearance of the spiral and wave datasets using machine learning approaches.</li> </ul>	<ul style="list-style-type: none"> <li>No proper knowledge or awareness about the seriousness of the disease.</li> <li>There aren't any proper clinically proven methods to diagnose the disease at an early stage.</li> <li>Helps in early detection of the disease using ML approaches.</li> </ul>	<ul style="list-style-type: none"> <li>Start using the predictor for accurate results.</li> <li>Making sure they do not have any of the symptoms listed in the ML web application.</li> <li>Enter their symptoms so as to find whether they have the Parkinsons disease or not.</li> </ul>	
Identify strong TR & EM	3. TRIGGERS <small>What triggers customers to act? i.e., seeing their neighbour installing solar panels, reading about a more efficient solution in the news.</small>	10. YOUR SOLUTION <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>	8. CHANNELS of BEHAVIOUR <small>8.1 ONLINE What kind of actions do customers take online? Extract online channels from #7. 8.2 OFFLINE What kind of actions do customers take offline? Extract offline channels from #7 and use them for customer development.</small>	Extract online & offline CH of BE
	<ul style="list-style-type: none"> <li>They will be able to understand themselves and about the disease using the Machine Learning web application.</li> </ul>	<ul style="list-style-type: none"> <li>Develop a ML-based detector that uses predict log probability function by random forest classifier.</li> <li>A detector that will accurately give the percentage affected in the individual using the datasets provided.</li> </ul>	<ul style="list-style-type: none"> <li>They will use the existing detectors that will only say whether they have Parkinson's disease or not but not the exact what is the percentage affected.</li> <li>They visit clinics to check whether they have the disease or not.</li> </ul>	
	4. EMOTIONS: BEFORE / AFTER <small>How do customers feel when they face a problem or a job and afterwards? i.e. feel insecure &amp; confident, in control - use it in your communication strategy &amp; design.</small>			

#### References:

- <https://www.ideahackers.network/problem-solution-fit-canvas/>
- <https://medium.com/@epicantus/problem-solution-fit-canvas-aa3dd59cb4fe>