Project Design Phase-I - Solution Fit Template **Team ID:** PNT2022TMID18285

Project Title: ***Efficient Water Quality Analysis and Prediction using Machine Learning***

Define CS, fit into CC

1. CUSTOMER SEGMENT(S) CS

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

All people

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.

Proper knowledge on Machine learning algorithm

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

The existing solution for this problem is adopting Machine learning algorithm like decision tree, Regression etc

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.

Customers can collect datasets of the water available in their nearby resources.

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.

Customers have to do this because they need to know the nutritional value of the water they consume.

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)

Customers address the statistical report showing the recent increase in the water borne disease in India.

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

3. TRIGGERS TR

What triggers customers to act? i.e. seeing their neighbour installing solar panels, reading about a more efficient solution in the news.

Customers get triggered when they see people suffering from water borne disease due to less knowledge on the content present in the water they drink.

10. YOUR SOLUTION SL

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.

8. CHANNELS of BEHAVIOUR CH

ONLINE
What kind of actions do customers take online? Extract online channels from #7

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

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.

Unhealthy> Got knowledge on the nutrients present in that water

First, We have to collect datasets containing the contents present in the water. After completing the preprocessing, AutoML algorithm is applied and it is fine-tuned to improved the accuracy

Online:
Applying AutoML Algorithm to fine-tune the accuracy.

Offline:
Collection of data for dataset.

Identify strong TR & EM