Project Design Phase-I - Solution Fit Template

Project Title: Efficient Water Quality Analysis And Prediction Using Machine Learning

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Define CS, fit into CC

1. CUSTOMER SEGMENT(S) CS

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

Quality Water

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.

To determine the worthiness of

A loss function is to be optimized by spending more time and money for research the water quality

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 note taking

- ❑ Waste Water treatment
- ❑ Plastic waste reduction
- ❑ Awareness and Education

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.

To build a machine learning Model using supervised learning algorithms for forecasting the value of a quality water

- ➢ Chorine content in water
- ➢ Sulfate content in water
- ➢ PH value
- ➢ Turbidity

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.

Water getting more dirty and unhealthy due to the Urban Population is increased rapidly.

People drink the unhealthy water without know their quality ,it cause some water born to people

It predict the water quality within a minute is more helpful to know the water quality

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)

People notice the problem by they are facing many water born disease due to take unhealthy water

In this model predict the water quality using some valuable parameters and it find the dissolved oxygen present in the water

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

Urban peoples know the water quality and their levels of minerals in the water through the website

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.

Before :

People don’t have any awareness about water quality and they drink health less water to cause disease.

After :

People can well know about the water quality without need any expect help.

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.

The Main objective of the project is used to predict and analysis the water to reduced the cause of water born disease and give the healthy water to the urban people

8. CHANNELS of BEHAVIOUR CH

8.1ONLINE

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

8.2OFFLINE

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

Customer need a good quality water by using valuable input features