Project Title: Efficient Efficient Water Quality Analysis & Prediction Using Machine Learning **Project Design Phase-I - Solution Fit Template**

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Define CS, fit into CC

1. CUSTOMER SEGMENT(S)

CS

Who is your customer?
The customer involved in this are the people who seek for the quality of the water.

6. CUSTOMER CONSTRAINTS

1. To determine whether water contains appropriate minerals.
2. Water is safe for drinking.
3. Does it contain any impurities
4. Suitable for irrigation and many more.

5. AVAILABLE SOLUTIONS

The solution is to have information on water quality parameters like pH level,Temperature, Turbidity,Minerals etc, to analyze the quality of water.

- It is possible to find the Water quality index(WQI) and Water quality class(WQC)

Explore AS, differentiate

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

2. JOBS-TO-BE-DONE / PROBLEMS

- Check the quality of water by gathering information based on many features and qualities in the chemical and physical composition of nature.
- Customer can check the water quality without expert's

9. PROBLEM ROOT CAUSE

RC

If there is no proper prediction of water quality in manufacturing sector, food production, drinking water, watering crops and many more, it can lead to great effect

7. BEHAVIOUR

BE

The study attempts to assess the users water behavior using available resources,prevailing socio economic conditions and personal aspects of users.The research work suggests the need for ensuring the water quality.

- Customers must have knowledge about the water quality in order for machine learning models to accurately anticipate the water quality

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

3. TRIGGERS

TR

The water available is needed to be classified for its best usage on its constituents for various purpose. To analyze it we can use ML prediction about the water.

10. YOUR SOLUTION

SL

1. It cluster the parameter like temperature, turbidity, hardness, pH level, and dissolved minerals in the water.
2. It also evaluate the effort of substantial nutrients

8. CHANNELS of BEHAVIOUR

CH

8.1 ONLINE

People can make use of ML prediction to provide the various characteristic of water as input and make it predict the proper use of water usage depending upon the predefined

4. EMOTIONS: BEFORE / AFTER EM

BEFORE: Without appropriate technology to analyze the water quality, lead to various diseases.

AFTER: Now it is easy to evaluate the quality of water with the help of this application.

loads on overall

water quality.

3. Accurate model can be selected based on the outcome in the

model evaluation.

learnings to machine.

8.2 OFFLINE

It makes easy to provide the measurements of water to the

machine and to predict the usage of quality of water for better use.