Project Design Phase-I - Solution Fit Template

Project Title: Efficient water quality analysis and prediction using machine learning **Team ID:** PNT2022TMID37703

CS

1.CUSTOMER SEGMENT(S)

The aim of the world's water use is for agriculture, industry, and electricity. The most common water uses include: Drinking and Household Needs. And also analysis the water quality to drinking purpose.

CC

6. CUSTOMER CONSTRAINTS

If the water is not at standard quality it is an serious thread to all the people. Because water essential one for all to sustain.

AS

5. AVAILABLE SOLUTIONS

The main solution is to analysis the water quality for the purpose of drinking,household,agriculture due to the healthy life of living things

The available solution is finding water quality index (WQI) and water quality class(WQC).

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

J&P

2. JOBS-TO-BE-DONE / PROBLEMS

It is very difficult to find the pure drinking Identify the associated casualfactor. water.Because it need more proof to be an qualified water.The rising water pollution ,resulting in lab testing to imperative reliability and accuracy and directly include the drinking water. The main problem is impurities present in the water.

RC

9. PROBLEM ROOT CAUSE

Identify appropriate solution. Collect sufficient amount of data, Root Cause Analysis (RCA) is a comprehensive term encompassing a collection of problem solving methods used to identify the real cause of a non-conformance or quality problem. Root Cause Analysis is the process of defining understanding and solving a problem.

BE

7. BEHAVIOUR

Water quality analyst analyse the quality and develop policies and plans for control the factor which produce impurities.They conduct chemical,physical and biological test to define water quality standard.

J&P, tap into BE, understand RC

Identify

3. TRIGGERS TR

This triggers to discover the pattern in user data and then make prediction based on intricate pattern for analyzing the quality of water. It also helps to improve the efficiency of water and more protected to drink water.

4. EMOTIONS: BEFORE / AFTER EM

Before there is no technology ,customer faced many problems ,they have solutions but it does not sacrifice the customer to analyse the water quality so it cause problem in health issue like disease such as diarrhoea, dysentery, hepatitis, typhoid, polio and cholera.. But now a days it is decreased .The problems are also cleared and sacrifice the water due to the methods of finding pure water by using Water monitoring system .

10. YOUR SOLUTION SL

Using Advanced Artificial Intelligence seven significant parameters and developed models were evaluated based on some statistical parameters based on naïve bayes algorithm, K Nearest Neighbour(KNN), Support Vector Machine(SVM) and Linear regression algorithm,

8.CHANNELS of BEHAVIOUR

ONLINE

Helps to notify the data preprocessing information.

OFFLINE

Helps to notify the data preprocessing information.