Project Design Phase-I
Problem Solution Fit

Date	19 September 2022
Team ID	PNT2022TMID49864
Project Name	Efficient Water Quality Analysis and Prediction Using Machine Learning
Maximum Marks	2 Marks

<table>
<tr>
<td colspan="2">1.CUSTOMER SEGMENTS

There are several types of customers of the usage of good quality water by government, private and public sectors.</td>
<td>6.CUSTOMER CONSTRAINS

Customer need some basic necessaries are network connection and system or mobile to utilize the web application to analyse the water quality by just entering few water characteristics data.</td>
<td>5.AVAILABLE SOLUTIONS

Have some data of water such colour, odour, and pH level of water and so on to determine the quality of water which is able to drink or not.

PROS
Solution within a second

CONS
Accuracy is not 100 %</td>
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<td colspan="2">2.JOBS TO BE DONE/PROBLEM

Initially collect the past historical data about water quality based on its various characteristics and properties in the chemical as well as the physical compositions in nature.</td>
<td>9.PROBLEM ROOT CAUSE

Improper maintenance of rain water and surface water from rivers which are mixed by industry and some other wastes by human being causes serve diseases to all living beings.</td>
<td>7.BEHAVIOUR

Customer must have the current status data of water undergoing for the analysis to predict good or bad in quality by machine learning models.

Basic knowledge of water characteristics and web usage for the easy way to solution.</td>
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<td colspan="2">3.TRIGGERS

General information about the water by using sensors and give those values to the application will give all the details of water quality.</td>
<td rowspan="2">10.YOUR SOLUTION

Simply entering the current water data to the web app which gives the analysis of water prediction.

Using past historical data of water to predict and analyse the water in current scenarios.</td>
<td rowspan="2">8.CHANNELS OF BEHAVIOUR

ONLINE

Customer can use the web app by simply entering the current URL of the website.</td>
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<td colspan="2">4.EMOTIONS:BEFORE/AFTER

Without prior knowledge of water quality and drinking it leads to be causing various diseases and loss of life.</td>
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