

## Project Design Phase-I Problem Solution Fit

Date	19 September 2022
Team ID	PNT2022TMID38737
Project Name	Efficient Water Quality Analysis and Prediction Using Machine Learning
Maximum Marks	2 Marks

<b>1.CUSTOMER SEGMENTS</b>  <p>There are various categories of customer of high-quality water in the public, private, and government sectors.</p>	<b>6.CUSTOMER CONSTRAINS</b>  <p>Customers can use a web application to analyse the water quality by simply providing a few water characteristic data, but they do need some fundamental prerequisites, such as a network connection, a system or a mobile.</p>	<b>5.AVAILABLE SOLUTIONS</b>  <p>Have information on the water's colour, odour, pH level, and other characteristics to evaluate if it is safe to drink or not.</p> <p><b>PROS</b> Solution within a second</p> <p><b>CONS</b> Accuracy is not 100 %</p>
<b>2.JOBS TO BE DONE/PROBLEM</b>  <p>Gather the historical information about the quality of the water based on its many features and qualities in the chemical and physical compositions of nature.</p>	<b>9.PROBLEM ROOT CAUSE</b>  <p>All living things are harmed by improper maintenance of rainwater and surface water from rivers that are combined with industrial waste and certain other human-generated contaminants.</p>	<b>7.BEHAVIOUR</b>  <p>Customers must have up-to-date information about the water's status in order for machine learning models to accurately anticipate whether the water is excellent or harmful.</p> <p>Basic knowledge of water characteristics and web usage for the easy way to solution.</p>
<b>3.TRIGGERS</b>  <p>General information about the water by using sensors and give those values to the application will give all the details of water quality.</p>	<b>10.YOUR SOLUTION</b>  <p>Simply entering the current water data to the web app which gives the analysis of water prediction.</p> <p>Using past historical data of water to predict and analyse the water in current scenarios.</p>	<b>8.CHANNELS OF BEHAVIOUR</b>  <p><b>ONLINE</b></p> <p>Customer can use the web app by simply entering the current URL of the website.</p>
<b>4.EMOTIONS:BEFORE/AFTER</b>  <p>Without prior knowledge of water quality and drinking it leads to be causing various diseases and loss of life.</p>		