

**Project Design Phase-I**  
**Proposed Solution Template**

Date	24 September 2022
Team ID	PNT2022TMID15657 Efficient Water Quality Analysis and Prediction using Machine Learning
Project Name	Efficient Water Quality Analysis and Prediction using Machine Learning
Maximum Marks	2 Marks

**Proposed Solution Template:**

Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Water is considered as a vital resource that affects various aspects of human health and lives. The quality of water is a major concern for people living in urban areas. The quality of water serves as a powerful environmental determinant and a foundation for the prevention and control of waterborne diseases. However, predicting the urban water quality is a challenging task since the water quality varies in urban spaces non-linearly and depends on multiple factors, such as meteorology, water usage patterns, and land uses, so this project aims at building a Machine Learning (ML) model to Predict Water Quality by considering all water quality standard indicators.
2.	Idea / Solution description	The solution is derived from the data sets by comparing the accuracy rate with previous data set and the current data set.
3.	Novelty / Uniqueness	<ul style="list-style-type: none"> <li>➤ Can be determined whether the water can be recycled or reused.</li> <li>➤ User Friendly</li> </ul>
4.	Social Impact / Customer Satisfaction	<ul style="list-style-type: none"> <li>➤ Beneficial for people health.</li> <li>➤ By analysing the quality of water, good and healthy water is provided.</li> </ul>
5.	Business Model (Revenue Model)	<ul style="list-style-type: none"> <li>➤ First the application is tested with few people.</li> <li>➤ Later on it comes into the picture where everyone can see by networking.</li> <li>➤ By conducting various activities regarding the importance of quality of water.</li> </ul>

6.	Scalability of the Solution	Helps in getting all required aspects of water.
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