Project Design Phase-I
Proposed Solution Template

Date	19 September 2022
Team ID	PNT2022TMID52625
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 seen as a significant resource that affects many aspects of human health and survival. Due to human activity as well as environmental factors, water contamination has increased recently. Numerous factors can taint water. As a result, drinking water is unsafe, and people should check the water's purity before using it for any reason.
2.	Idea / Solution description	The goal of this project is to create a machine learning model that can forecast a water quality by taking into account all available standard indicators. The best prediction will be made using a large dataset and a good correlation between the factors.
3.	Novelty / Uniqueness	The portability of the suggested approach is tested. It comprises two stages: testing and training, which use historical data from the past. In comparison to other methods, this uses just the necessary data and produces predictions that are more accurate.
4.	Social Impact / Customer Satisfaction	The effectiveness of water services as a key environmental factor and a base for the prevention and management of water-borne illnesses. Helps individuals better classify the available water for different uses based on analysis that may be used to practise water conservation.
5.	Business Model (Revenue Model)	This concept has to be licenced by machine learning and data analytics in order to get greater traction with the public.
6.	Scalability of the Solution	When put to the test by demands that are higher than its operating requirements, a system that scales effectively will be able to maintain or improve its level of performance. The model is safe and secure to use. It offers higher water quality accuracy. The temperature and pH level are easily discernible.