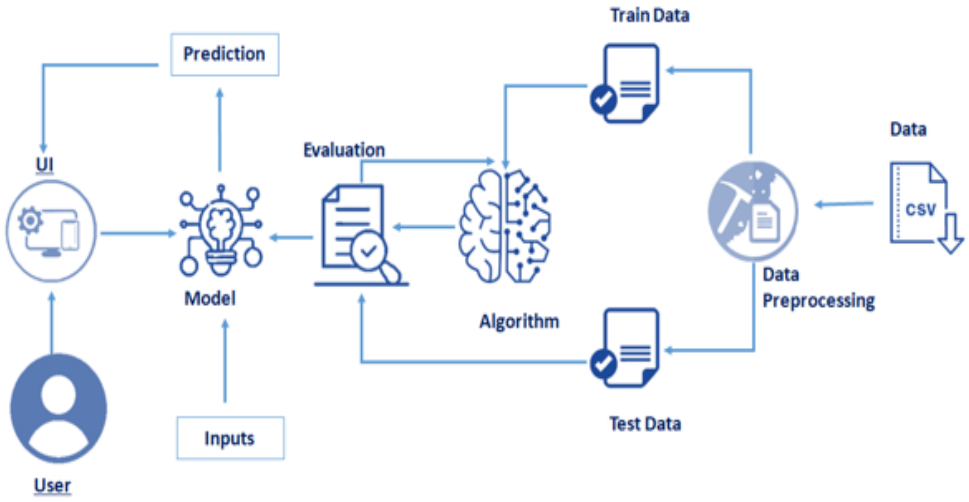
Project Design Phase-I
Proposed Solution Template

Date	19 September 2022
Team ID	PNT2022TMID14644
Project Name	Efficient Water Quality Analysis and prediction using machine learning
Maximum Marks	4 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)	Efficient Water Quality Analysis & Prediction Using Machine Learning 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	You will need to train the datasets to run smoothly and see an incremental improvement in the prediction rate. Different measures are used to assess the accuracy of the applied machine learning algorithms.
3.	Novelty / Uniqueness	Since the results from various algorithms are compared we can identify which method gives the highest accuracy.
4.	Social Impact / Customer Satisfaction	Assessing customer satisfaction is critical for companies looking to gain competitive advantage in the market. Therefore, customer satisfaction is tied to the standards that apply to different areas of activity, including water quality analysis. The present work aims to assess the satisfaction of the customers based on parameters that influence the management requirements and the technical requirements of the ISO/IEC 17025 standard.

5.	Business Model (Revenue Model)	
6.	Scalability of the Solution	Reliable water quality prediction can improve environmental flow monitoring and the sustainability of the stream ecosystem.