

Project Design Phase - 1

Define the Problem Statements

Team ID	PNT2022TMID18283
Project Name	Efficient Water Quality Analysis & Prediction using Machine Learning

Problem statement template:

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.

Problem statement(PS)	I am	I'm tryingto	But	Because	Which makes me feel
PS-1	Common Man	Trying to get good water	Water quality is not good	Water contains dissolved chemicals and dirt particles.	Unhealthy and risk
PS-2	Agriculturalist	Get good water for my fields	Standard of the water is not good for crops.	The source of water is being polluted and affects the cultivation	Struggle in agriculture and produces less yield
PS-3	Environmentalist	Build a safe and healthy environment for future.	Industrial waste affects the quality of water	The hazardous outlet of the industries affects the water quality.	Feel worried and vulnerable on consuming unsafe water.