

Ideation Phase

Define the Problem Statements

Date	10 September 2022
Team ID	PNT2022TMID28709
Project Name	Efficient Water Quality Analysis and Prediction using machine learning
Maximum Marks	2 Marks

PROBLEM STATEMENT:

Water is one of the most essential part of a human's life. In order to lead a healthy life, it's important to drink healthy and pure water. But many of them are still unaware of the purity level of the water that they are using in their locality. It is known that contaminated water and inadequate sanitation facilitate the transmission of diseases such as cholera, diarrhea, dysentery, hepatitis A, typhoid, and polio. Those without access to clean water and sanitation face preventable health risks. Hence it's really important to have a safe and purified water in order lead a healthy life. Many places the water may look clean but it may not be as pure as it seems to be. Hence the water purity level has to detected and analysed whether the water is fit for drinking and domestic purpose or not.

IDEATION PHASE - DEFINE THE PROBLEM STATEMENT:

We are going to implement a water quality prediction using machine learning techniques. In this technique, our model predicts that the water is safe to drink or not using some parameters like Ph value, conductivity, hardness, etc.

Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1	Water quality analyzer	Check water quality index (WQI)	Water sources vary from place to place	The climatic and chemical condition varies	Difficult to predict
PS-2	people	Uses the water	Affected by water born disease	It has some unwanted entities that aren't good for us	Sick and unhealthy