Ideation Phase
Empathize & Discover

Date	7 September 2022
Team ID	PNT2022TMID21972
Project Name	Project- Efficient Water Quality Analysis and Prediction using Machine Learning
Maximum Marks	4 Marks

Empathy Map Canvas:

Water makes up about 70% of the earth's surface and is one of the most important sources vital to sustaining life. Rapid urbanization and industrialization have led to a deterioration of water quality at an alarming rate, resulting in harrowing diseases.

Water quality has been conventionally estimated through expensive and time consuming lab and statistical analyses, which render the contemporary notion of real-time monitoring moot. The alarming consequences of poor water quality necessitate an alternative method, which is quicker and inexpensive. With this motivation, this research explores a series of supervised machine learning algorithms to estimate the water quality index (WQI), which is a singular index to describe the general quality of water, and the water quality class (WQC), which is a distinctive class defined on the basis of the WQI. The proposed methodology employs four input parameters, namely, temperature, turbidity, pH and total dissolved solids

Empathy Map

Says
- I want some reliable information regarding the water chemical levels
- I want a reliable and an easy way to analyze the water quality levels

Thinks
- Is The Data About the water is Accurate
- Has the water been tested for it's chemical values

Does
- Optimization of PH Value in Accurate Range
- To Ensure the Highest Quality Of Water

Feels
- Worried: Some values are not accurate
- Impatient: Takes time for the results displaying