Ideation Phase
Define the Problem Statements

Date	19 September 2022
Team ID	PNT2022TMID08775
Project Name	Project - Efficient water quality analysis and prediction using Machine Learning
Maximum Marks	2 Marks

Access to safe drinking-water is essential to health, a basic human right and a component of effective policy for health protection. This is important as a health and development issue at a national, regional and local level. In some regions, it has been shown that investments in water supply and sanitation can yield a net economic benefit, since the reductions in adverse health effects and health care costs outweigh the costs of undertaking the interventions.

The most frequent water quality issue is due to the high content of iron (iron(III) oxide) and magnesium content in raw water of treated water. Water quality disorders occur as a result of changes in the color of the water that turns yellow to a dark brown color. The color change is due to action chemical reactions that are used in the water treatment process at the Treatment Plant (Kasan, 2006). This water treatment diagnostic and auditing process still uses manual methods, where water will be measured and the quality index will be clinically measured inside the laboratory.

Besides, low pH levels cause fish killed by stressing animals system and causing physical damage, which in turn makes them more vulnerable to disease. Water is the most important source of survival for all beings on earth. Therefore, water safety issues are a very important issue. Consumer complaints and reports made by the relevant government departments indicate that consumers are dissatisfied with the quality of water supplied (Nithyanandam, Huan, & Thy, 2015). Hence, a concept in which equipment, machines, sensors and devices are connected to the Internet and there is data collection and transfer through the network developed to follow the river water quality index. Integration of the elements of sustainability and IR4.0 through the Internet of Thing by adopting electronic and Internet applications of Thing has a very positive impact to refresh the approach to lesions in Malaysia.