Project Design Phase-I
Proposed Solution Template

Date	26 April 2023
Team ID	NM2023TMID10894
Project Name	Assessing the safety of municipal drinking water

Proposed Solution

Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	The problem is the lack of an efficient and comprehensive system for assessing the safety of municipal drinking water. Current methods are often manual, time-consuming, and prone to errors, leading to potential health risks for the population
2.	Idea / Solution description	The system will continuously monitor key parameters such as pH levels, chemical contaminants, bacterial presence, and turbidity.
3.	Novelty / Uniqueness	Our solution stands out due to its integration of IoT sensors, data analytics, and machine learning algorithms to provide a holistic and automated approach to water quality assessment. The real-time monitoring, predictive analytics, and automated alert system offer a unique advantage over traditional manual methods
4.	Social Impact / Customer Satisfaction	implementing this solution, we aim to significantly improve the safety of municipal drinking water. Real-time monitoring and early detection of water quality issues will enable prompt action, minimizing health risks and ensuring public safety.
5.	Business Model (Revenue Model)	business model revolves around a subscription-based service. Municipalities and water authorities can subscribe to our system and pay a recurring fee based on the size of their water distribution network and the number of sensors deployed.
6.	Scalability of the Solution	The proposed solution is highly scalable. It can accommodate water distribution networks of varying sizes, from small towns to large cities. The system can easily be expanded by deploying additional sensors and scaling up the data management infrastructure.