

## Project Design Phase-I Proposed Solution Template

|               |                                                           |
|---------------|-----------------------------------------------------------|
| Date          | 19 September 2022                                         |
| Team ID       | PNT2022TMID25646                                          |
| Project Name  | Efficient Water Quality Prediction Using Machine Learning |
| Maximum Marks | 2 Marks                                                   |

### Proposed Solution Template:

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

| S.N. | Parameter                                   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.   | Problem Statement<br>(Problem to be solved) | The deteriorating quality of natural water resources like lakes, streams and estuaries, is one of the direst and most worrisome issues faced by humanity. The effects of unclean water are far-reaching, impacting every aspect of life. Therefore, management of water resources is very crucial in order to optimize the quality of water. The effects of water contamination can be tackled efficiently if data is analyzed and water quality is predicted beforehand. This issue has been addressed in many previous research, however, more work needs to be done in terms of effectiveness, reliability, accuracy as well as usability of the current water quality management methodologies. The goal of this study is to develop a water quality prediction model |
| 2.   | Idea / Solution description                 | The output or prediction are derived from the data sets by comparing correlation the accuracy rate with the previous data set and the current data set which user gives                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 3.   | Novelty / Uniqueness                        | This can be used to determine whether the water is used for Drinking or Not and used to find the quality of water                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 4.   | Social Impact / Customer Satisfaction       | Analysing the quality of water helps people to be in good health and healthy water is provided.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 5.   | Business Model (Revenue Model)              | First, the application is tested by a few people. Later on, it comes into the picture that everyone can see by networking. By conducting various activities regarding the importance of quality of water                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

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| 6. | Scalability of the Solution | This really helps the user in getting all required aspects of water with use of our ML model |
|----|-----------------------------|----------------------------------------------------------------------------------------------|