## **Project Design Phase-I**

## **Problem – Solution Fit Template**

| Date          | 19 September 2022                       |
|---------------|---|
| Team ID       | PNT2022TMID27531                        |
| Project Name  | Project - Real-Time River Water Quality |
|               | Monitoring and Control System           |
| Maximum Marks | 2 Marks                                 |

|   | 1   |  |
|---|---|--|
| 1. CUSTOMER SEGMENT(S) Who are our customers? The people who need hygienic water for their daily usage are our customers.   | 6. CUSTOMER CONSTRAINTS  What constraints prevent your customers from taking action or limit their choices of solutions?  People polluting the water bodies prevent the customers from taking action. | 5. AVAILABLE SOLUTIONS  Which solutions are available to the customers when they face the problem or need to get the job done? What have they tried in the past? What pros & cons do these solutions have?  The solution to prevent the problem is to avoid adding toxic substances into the water bodies. |
| 2.JOBS-TO-BE-DONE/PROB LEMS  Which jobs-to-be-done (or problems) do you address for your customers?  In this modern world, the water bodies are polluted so much that they have become unfit for domestic and commercial purposes. With our project we identify and analyze the quality of water. | 9. PROBLEM ROOT CAUSE What is the real reason that this problem exists? Water pollution still exists because of the increase in population.   | 7. BEHAVIOUR  What does your customer do to address the problem and get the job done?  When a problem arises the customer could approach the customer services to rectify the problem.  The problem can be addressed by raising awareness campaigns as well.   |
| 3. TRIGGERS  What triggers customers to act?  | 10. YOUR SOLUTION  To monitor the pH levels and temperature of water and  | 8. CHANNELS of<br>BEHAVIOUR<br>8.1 ONLINE<br>What kind of actions do<br>customers take online?   |

| Water Pollution causes viral diseases, water-borne diseases and imposes threats to organisms living in it. The main focus of our project is to analyze the impurities,PH and temperature of the river water present in the water.                                      | altering the authorities about the quality of water. The authorities will announce the localities not to drink that water, if the water quality is not good. | Extract online channels from #7  We can create an app which can set a sensor to detect the Ph of the water and when the level goes high, a notification is sent to the respected authorities, so they can take the required actions.  We can utilize the customer service portal as well, |
|--|--|---|
| 4. EMOTIONS: BEFORE / AFTER  How do customers feel when they face a problem or a job and afterwards?  Customers face many health related issues when the water is polluted. When the water pollution problem is solved, customers are able to maintain a healthy life. |  | 8.2 OFFLINE  Respective authorities can raise awareness campaigns in schools and colleges once in a while to pick up the waste or garbage from the water bodies.  |