

**Project Design Phase**  
**Problem Solution Fit Template**

Date	04 NOVEMBER 2022
Team ID	PNT2022TMID07628
Project Name	Project –IOT Based Real Time River Water Quality Monitoring And Control System

***Problem Solution Fit:***

Define CS, fit into CC	<b>1. CUSTOMER SEGMENT(S)</b> <span>CS</span> Who is your customer?  According to our problem statement, people living in rural areas and so, who uses river water.	<b>2. CUSTOMER CONSTRAINTS</b> <span>CC</span> What constraints prevent your customers from taking action or limit their choices of solutions?  Only one system is used for specific area and so people may find it hard to recover if any fault occurs, as we used sensors to detect temperature and pH.	<b>3. AVAILABLE SOLUTIONS</b> <span>AS</span> Which solutions are available to the customers when they face the problem need to get the job done? What have they tried before? What pros & cons do these solutions have?  Even though the individual notifications to each people could not be sent, the system will still notify the corporation and they can further notify the people.	Explore AS, differentiate
Focus on J&P, tap into	<b>2. JOBS-TO-BE-DONE / PROBLEMS</b> <span>J&amp;P</span> Which jobs-to-be-done (or problems) do you address for your customers?  The river water quality monitoring system checks the temperature and pH of the water periodically and notifies the public when the quality of the water varies.	<b>3. PROBLEM ROOT CAUSE</b> <span>RC</span> What is the real reason that this problem exists? What is the back story behind the need to do this job?  As we know sensors are bit costly and our system needs more than one sensors to work. The sensors are used periodically to check the quality of the water and might need to be replaced frequently.	<b>4. BEHAVIOUR</b> <span>BE</span> What does your customer do to address the problem and get the job done?  The customer could use the user guide provided to overcome the problem or else they can report and contact the corporation. They will take care of the problem.	Focus on J&P, tap into C
Identify strong TR & EM	<b>3. TRIGGERS</b> <span>TR</span> What triggers customers to act? i.e. seeing their neighbour installing For Example : If certain area people start using this quality monitoring system and so they are staying healthy without any water borne diseases, it will trigger the other area people start using it.  <b>4. EMOTIONS: BEFORE / AFTER</b> <span>EM</span> How do customers feel when they face a problem or a job and afterwards?  The customers might feel hard first, we will guide them with a user guide and they will find it easy to use.	<b>5. YOUR SOLUTION</b> <span>SL</span> If you are working on an existing business, write down your current solution first, fill in the corners, and check how much it fits reality. If you are working on a new business proposition, draw how it looks and you fill in the corners and come up with a solution that fits with customer limitations, solves a problem and matches customer behaviour.  Our Solution is to check the quality of the river water periodically using two sensors. The parameters like temperature and pH of the river water is monitored and alerts when any changes in the parameters occur.	<b>6. CHANNELS of BEHAVIOUR</b> <span>CH</span> <b>6.1 ONLINE</b> What kind of actions do customers take online?  If it is in online mode, they can use the helpline number to contact the authorities.  <b>6.2 OFFLINE</b> What kind of actions do customers take offline?  If it is in offline mode, the customers can directly reach the corporation office and report the problem.	Extract online & offline CH of BE