

Prediction using Machine Learning					
Define CS, fit into CC	1. CUSTOMER SEGMENT(S) <div>CS</div> <div><ul style="list-style-type: none">Industries that use water as their resource, Agriculture where irrigation water must be neither too saline nor contain toxic materials, common people to avoid health hazards.</div>	6. CUSTOMER CONSTRAINTS <div>CC</div> <div><ul style="list-style-type: none">Lack of budget in rural areas where water quality analysis is required for agricultural practices.Need for real time monitoring, quicker and inexpensive methods for industrial needs.</div>	5. AVAILABLE SOLUTIONS <div>AS</div> <div><ul style="list-style-type: none">Water quality has been conventionally estimated through lab and statistical analysis which require sample collection, transport to labs, and a considerable amount of time and calculation which is expensive and time consuming.</div>	Explore AS, differentiate	
	2. JOBS-TO-BE-DONE / PROBLEMS <div>J&P</div> <div><ul style="list-style-type: none">Use supervised machine learning for the efficient prediction of water quality in real-time.Quicker and cheaper compared to lab analysis.</div>	9. PROBLEM ROOT CAUSE <div>RC</div> <div><ul style="list-style-type: none">Rapid industrialization has led to deterioration of water qualityPoor water quality has been linked to many diseases.Water is one of the most communicable mediums.</div>	7. BEHAVIOUR <div>BE</div> <div><ul style="list-style-type: none">To know if the water meets the standards of the industrial process, they collect the sample, transport to lab and analyse the data.The proposed solution will incorporate machine learning algorithms to estimate the water quality.</div>		Focus on J&P, tap into BE, understand RC
	3. TRIGGERS <div>TR</div> <div><ul style="list-style-type: none">As reported, in developing countries, 80% of the diseases are water borne diseases, which have led to 5 million deaths and 2.5 billion illnesses.</div>	10. YOUR SOLUTION <div>SL</div> <div><ul style="list-style-type: none">Use machine learning algorithms to estimate the water quality index (WQI), which is a singular index to describe the general quality of water.The proposed solution will achieve reasonable accuracy with minimum number of parameters which will validate its possible application in real time water quality detection system.</div>	8.CHANNELS of BEHAVIOUR <div>CH</div> <div><ul style="list-style-type: none">Online: Smart water quality monitoring system using IoT are hence required to automatically monitor various parameters that determine quality parameters that determine the quality of water in real time from remote locations.Offline: Manual chemical water quality testing methods usually done in labs.</div>		
4. EMOTIONS: BEFORE / AFTER <div>EM</div> <div><ul style="list-style-type: none">Fear of health hazards concern over crop yield due to use of pollutant water</div>					