

Project Design Phase-I - Solution Fit

Project Title: Essential Water Quality Analysis and Prediction using Machine

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The lab technicians can produce the results in seconds rather than depending on a equipment with minor

Climate changes has also been recorded in the degradation of water quality

1. CUSTOMER SEGMENT(S)

Life on Earth is mostly dependent on water. It is the source of life for all life forms.

The customers are:

- The general public
- Residents of water bodies & coastal regions
- Manufacturers
- Companies /Organizations purifying water
- Lab technicians

6. CUSTOMER CONSTRAINTS

- Frequent variation in water parameters
- Too much time taken in laboratories
- No accurate results
- No Realtime monitoring

5. AVAILABLE SOLUTIONS

This project of developing a web application detects the quality of water

It gives a clear and accurate classification of whether the water is fit or unfit for usage.

It gives results in a fraction of second

2. JOBS -TO-BE-DONE / PROBLEMS

The water quality analysis

helps the general public to check the quality of drinking water

The manufacturers can decide with the usage of water based on quality

9. PROBLEM ROOT CAUSE

The main root cause of Water quality reduction is Pollution

Industrial discharge has contaminated the water sources

Acid rain, drainage, Oil spills are other factors that affect water quality

7. BEHAVIOUR

Existing solutions include equipment like • Rosette sampler

- Atomic fluorescence Spectroscopy
 - Electric conductivity meter
- These are cost and time intensive and show minor variations from actual quality

Additionally, these are handled only by technicians and thus

requires expert knowledge
in operating the equipment.

Identify Strong TR and TM	<div>3. TRIGGERS</div> <div>TR</div> <p>For proper analysis of water quality, the key indicators of water are to be identified. Only then accuracy will improve.</p>	<div>10. YOUR SOLUTION</div> <div>SL</div> <p>Our solution to measure the quality of water in a most accurate way is to develop web application which accepts the input parameters such as Dissolved Oxygen, pH, BOD, Conductivity, etc. Based on the input of water parameters, the water is classified as Fit or Unfit for usage.</p>	<div>8. CHANNELS of BEHAVIOUR</div> <div>CH</div> <div>8.1 ONLINE</div> <p>This solution of measuring water quality using web application works completely through internet. Current solutions do not support online working</p> <div>8.2 OFFLINE</div> <p>Consult laboratories or technicians to measure the quality of water.</p>
	<div>4. EMOTIONS: BEFORE / AFTER</div> <div>EM</div> <p>Satisfaction of drinking clean water Industries look for ways to purify water</p>		