PROJECT DESIGN PHASE-1

PROBLEM SOLUTION FIT

Date	30 SEPTEMBER 2022
Team ID	PNT2022TMID16005
Project Name	Efficient Water Quality Analysis and Prediction using Machine Learning
Maximum Marks	2 Marks

Problem Solution Fit:

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CS

1.CUSTOMER SEGMENT(s)

People, Residential, Commercial, Lab Testing

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CC

6.CUSTOMER CONSTRAINTS

Water is essential for every one to sustain. If the water is impure it may cause diseases.with this application it can be avoided.

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AS

5.AVAILABLE SOLUTION

we need to train the datasets to run smoothly and see an incremental improvement in the prediction rate using Random Forest Regression algorithm on our dataset

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J&P

2.JOB-TO-BE DONE/PROBLEMS

Check the quality of water, whether the water is drinkable, reason for un usability. Can verify the quality by themselves without expert

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RC

9.PROBLEM ROOT CAUSE

The major cause of this problem is lack of drinking water and doesn't follow the proper diet and doesn't have proper awareness is also being a root cause.

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BE

7.BEHAVIOUR

We will be building a web application that is integrated to the model built. The enter values are given to the saved model and prediction is showcased on the UI

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TR

3.TRIGGERS

Using this application, user can avoid the fear of water quality. Since the user knows the quality of water they are going to use.

EM

4.EMOTIONS:BEFORE/AFTER

Before: There are no application to prdict the water quality.

After: By using this easy to predict the quality of water using some a parameters.

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SL

10.YOUR SOLUTION

The heart of the project depends upon the prediction of the quality of the water. As abundant as algorithms are present in order to achieve such a goal, it is mandatory to select the best and the most efficient algorithm to finalize the predicted value.

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CH

8.CHANNEL OF BEHAVIOUR

Online: The application Notify the user with data prepocessing information

Offline: Water quality has been conventionally estimated through expensive and time-consuming lab and statistical analyses, which render the contemporary notion of real-time monitoring moot.

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