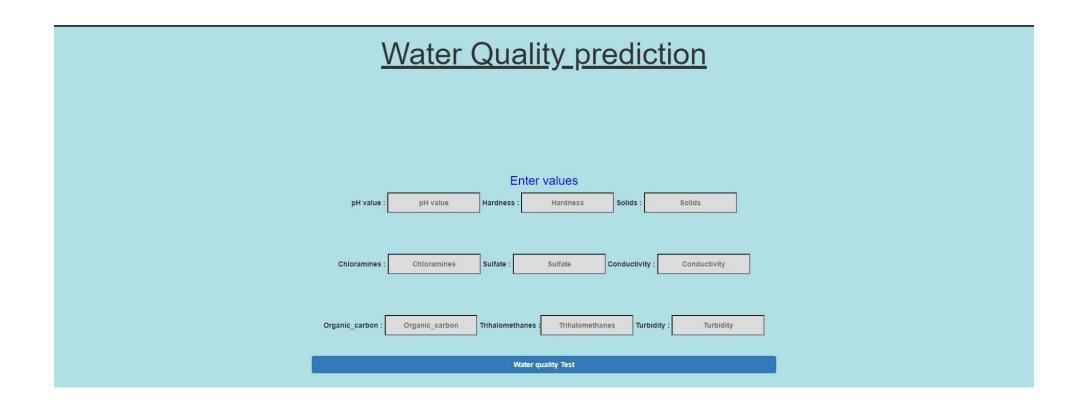
## SPRINT 4 Project Deliverables (Flask Code & Deployment)

Team ID	PNT2022TMID28413
Project Name	Efficient Water Quality Analysis & Prediction using Machine Learning

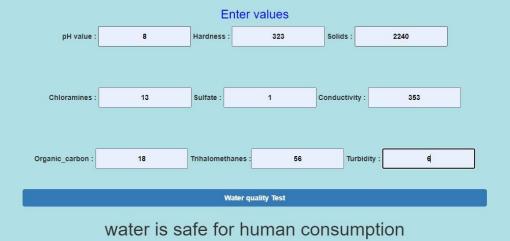
```
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app.py X Water_quality.ipynb
                                  O home.html 2
                                                   water_potability.csv

♦ app.py > Python > ♦ hello
  from flask import Flask, request, render_template
  2 import pickle
     import pandas as pd
  4 import numpy as np
  5 import joblib
     scaler = joblib.load("my_scaler.save")
     app = Flask(__name__)
     model = pickle.load(open('model.pkl', 'rb'))
     @app.route("/home")
     ₽pp.route("/")
 14 def hello():
        return render_template("home.html")
     @app.route("/predict", methods = ["GET", "POST"])
 18 def predict():
         if request.method == "POST";
             input features = [float(x) for x in request.form.values()]
             features_value = [np.array(input_features)]
             feature_names = ["ph", "Hardness", "Solids", "Chloramines", "Sulfate",
                              "Conductivity", "Organic_carbon", "Trihalomethanes", "Turbidity"]
             df = pd.DataFrame(features_value, columns = feature_names)
             df = scaler.transform(df)
             output = model.predict(df)
             if output[0] == 1:
                 prediction = "safe"
                 prediction = "not safe"
```

```
@app.route("/predict", methods = ["GET", "POST"])
def predict():
   if request.method == "POST":
       input_features = [float(x) for x in request.form.values()]
       features_value = [np.array(input_features)]
       feature_names = ["ph", "Hardness", "Solids", "Chloramines", "Sulfate",
                        "Conductivity", "Organic_carbon", "Trihalomethanes", "Turbidity"]
       df = pd.DataFrame(features_value, columns = feature_names)
       df = scaler.transform(df)
       output = model.predict(df)
       if output[0] == 1:
           prediction = "safe"
           prediction = "not safe"
       return render_template('home.html', prediction_text= "water is {} for human consumption ".format(prediction))
if __name__ == "__main__":
   app.run(debug=True)
```



## Water Quality prediction



## Water Quality prediction

