#Predicting Water Quality
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Project Description
The focus for this project was to construct a model to predict whether
water was potable based on certain water quality measurements.
The data set used for this analysis was from Kaggle (Aditya Kadiwal).
The CRISP-DM methodology was followed with Data Understanding,
Data Preparation, Predictive Modeling, Evaluation, and Deployment stages.

Table of Contents

    Supporting Files
    Project Environment Overview
    Data Preprocessing
    Model Training
    Model Evaluation
    Report an Issue
    Project References

Supporting Files
The dataset used for this analysis can be found through the link below:
[Prediction of Water Quality Dataset](https://www.kaggle.com/datasets/adityakadiwal/water-potability)

Project Environment Overview
The project was completed in Jupyter Notebook (through Anaconda Navigator)
via Python. All relevant libraries are called out in the Import Necessary
Libraries section of the code.

Data Preprocessing
Univariate, Multivariate, and additional Exploratory Data Analysis (EDA)
was performed in depth on the data set. All variables were retained
in the dataset. The data was separated into Training (80%) and Test
(20%) subsets.

Model Training
The classification problem had five potential models trained and evaluated:
Support Vector Machine, K-Nearest Neighbor, Random Forest Classifier,
Adaboost, Decision Tree Classifier, and Logistic Regression.

Model Evaluation
For this classification problem, Accuracy Test, Accuracy Train,
Precision, Recall, and F1-Score were used. The primary metric was Accuracy
Test.

Report an Issue
In the event of an error or major concerns, please reach out to my email
via meyerjake@gmail.com.

Project References

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