Proposal Template:

<table>
<tr><td colspan="2">Group Number: 15</td></tr>
<tr><td colspan="2">Name and Index Number of the Students:</td></tr>
<tr><td>Student 1:
Name: Weerawanni W.M.C.R.
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<tr><td colspan="2">Project Title: Red Wine Quality Prediction Using Physicochemical Properties</td></tr>
<tr><td colspan="2">Project Description:

This project aims to utilize machine learning techniques to predict the quality of red Vinho Verde wine based on its physicochemical properties. The dataset is related to red and white variants of the Portuguese "Vinho Verde" wine. The dataset provided contains various attributes such as fixed acidity, volatile acidity, citric acid, residual sugar, chlorides, free sulfur dioxide, total sulfur dioxide, density, pH, sulfates, and alcohol content, alongside the quality score rated on a scale from 0 to 10. The task is framed as a supervised regression problem where the quality score serves as the target variable. With the dataset, the aim is to build a predictive model that accurately estimates wine quality based on its chemical composition, offering valuable insights into the factors influencing wine taste and perceived quality.

To achieve this objective, two regression algorithms will be trained and evaluated using evaluation metrics to determine the most effective model for predicting wine quality by comparing and contrasting the results.</td></tr>
<tr><td colspan="2">Dataset Link: https://www.kaggle.com/datasets/uciml/red-wine-quality-cortez-et-al-2009</td></tr>
<tr><td colspan="2">Original Number of Features in the Dataset: 11</td></tr>
<tr><td colspan="2">Target Variable: Red Wine Quality (score between 0 and 10)</td></tr>
<tr><td colspan="2">Type of the Problem You are Going to Solve (Supervised-Regression, Supervised-Classification, or Unsupervised-Clustering): Supervised-Regression</td></tr>
<tr><td colspan="2">Algorithms Selected:</td></tr>
<tr><td>Algorithm 01:
• Random Forest</td><td>Algorithm 02:
• Support Vector Machine (SVM)</td></tr>
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