

# Data Science Project: Analyze Iris Data - Project Submission

## Project Overview:

### 1. Data Science Task:

For the data science task, I chose to implement a Decision Tree Classifier to predict the flower species based on the unique characteristics in the Iris dataset.

Machine Learning Algorithm: Decision Tree Classifier

Dataset Splitting: The dataset was split into 80% training and 20% testing sets.

Model Training: The Decision Tree model was trained on the training set.

Model Evaluation: The model's performance was evaluated on the testing set using metrics such as accuracy, precision, and recall.

### 2. Simple Exploratory Data Analysis (EDA):

For the EDA, I utilized various visualizations to understand the dataset's structure and characteristics.

### 3. Documentation:

I have documented my approach, methodologies, and any challenges faced during the project. The code includes comments for better readability and understanding.

### 4. Submission:

I am submitting a zipped file containing the project code, documentation, and any necessary assets.

## Conclusion:

I thoroughly enjoyed working on this project, and I believe the chosen Decision Tree Classifier provides a reliable model for predicting Iris flower species based on their characteristics. The EDA visualizations have offered valuable insights into the dataset's distribution and relationships between features.