README: Decision Tree Classifier Implementation

Objective

This project implements two decision tree classifiers: Quinlan's C4.5 and Breiman's CART, where the importance method will be based on gain ratio and Gini index, respectively. These classifiers are tested on the Credit Approval dataset from the University of California

Irvine Machine Learning Repository after handling missing values, performing 10-fold cross-validation, selecting the best model and evaluating on test set.

Requirements

Python3 must be installed with the libraries-

pip install numpy pandas scikit-learn

Running the Program

1. Download and extract the dataset.
   Keep the training.data and test.data in the same directory as the Python file.
2. Run the script:

   python MLProject.py
3. Expected Output:

   F1-scores, Best Model after Cross-validation, Final Model Accuracy, Precision and Recall and F1-Score on Test Set.

An alternative way to run this is google colab.