User Manual (manual.pdf)

Overview

This tool performs machine learning experiments on performance datasets, comparing a baseline Linear Regression model with an improved XGBoost model. It processes multiple datasets, evaluates model performance, and saves results in a CSV file.

Usage Instructions

1. **Prepare the Dataset**
    - **Ensure that your datasets are structured as CSV files with numerical and categorical features.**
    - **Store datasets in the appropriate directory: C:\Users\chiam\OneDrive\Desktop\ISE\lab2\datasets.**
2. **Run the Script**
    - **Execute the Python script:**
3. **python Configuration_Performance_Learning.py**
    - **The script will automatically iterate through datasets, train models, evaluate performance, and save results to model_performance_results1.csv.**
4. **Output**
    - **The output file model_performance_results1.csv contains performance metrics for each dataset and model iteration.**
    - **Metrics included:**
        - **MAE (Mean Absolute Error)**
        - **MAPE (Mean Absolute Percentage Error)**
        - **RMSE (Root Mean Squared Error)**