Lab Assignment 2: KNN Classification

Implement the KNN classifier using the IRIS dataset.

Use a test set of 20% of the original dataset. Use Euclidean distance as the distance metric.

Implement the classifier for K=3 and 5. Please do not use built-in functions.

Perform the classification with and without cross-validation and analyse the results. For k-fold cross-validation, assume k=10.

Evaluate the classifier using the following metrics: Precision, Recall, F1-score, Accuracy and Confusion Matrix.

Once you have implemented the KNN classifier without using the built-in function, compare its results with using the built-in function.

Please upload the

1. Screenshots of the code

2. Screenshots of the outputs and

3. The Python code of the assignment on Moodle is by 01/02/2024 EOD.