21/06/2023, 04:26 lab 8

In [3]:

```
import pandas as pd
from sklearn.ensemble import AdaBoostClassifier, RandomForestClassifier
from sklearn.metrics import accuracy_score
# Load the training data set from a CSV file
train_data = pd.read_csv('Z:/College/3.2/ML LAB/Final lab/datasets/iris.csv')
# Split the data into features and labels
train_features = train_data.drop('Species', axis=1)
train_labels = train_data['Species']
# Train an AdaBoost classifier on the training data
ada boost = AdaBoostClassifier()
ada_boost.fit(train_features, train_labels)
# Train a Random Forest classifier on the training data
random forest = RandomForestClassifier()
random_forest.fit(train_features, train_labels)
# Load the test data set from a CSV file
test_data = pd.read_csv('Z:/College/3.2/ML LAB/Final lab/datasets/iris.csv')
# Split the data into features and labels
test_features = test_data.drop('Species', axis=1)
test_labels = test_data['Species']
# Make predictions using the AdaBoost classifier
ada_boost_preds = ada_boost.predict(test_features)
# Make predictions using the Random Forest classifier
random_forest_preds = random_forest.predict(test_features)
# Compute the accuracy of the AdaBoost classifier on the test data
ada_boost_accuracy = accuracy_score(test_labels, ada_boost_preds)
# Compute the accuracy of the Random Forest classifier on the test data
random_forest_accuracy = accuracy_score(test_labels, random_forest_preds)
# Compare the accuracies of the two classifiers
print('AdaBoost accuracy:', ada boost accuracy)
print('Random Forest accuracy:', random_forest_accuracy)
```

AdaBoost accuracy: 1.0
Random Forest accuracy: 1.0

In []: