Programming exercise : 2

Uncombined multiclass classification

In this part, you can use the "scikit" package of python in your implementation.
(a) Perform multiclass classification using Decision trees and record the corresponding error percentage.
(b) Perform multiclass classification using Random Forests with number of estimators ≡ {5, 10, 15, 20, 25, 30} and record the corresponding error percentage. Report your observations.

Dataset : You will be using a subsample of the MNIST dataset which has been provided. You can refer the readme file for a brief description of the data.

Code: A template "Decision_tree.py" has been provided. You need to make the necessary changes to complete the exercise.