Practice Homework 2.1 : Iris Flower Classification

This homework deals with the following topics:

- Random Forest Models
- Evaluation for Classification Problems

The Assignment

In this optional assignment, we will practice applying the Random Forest model in sklearn to tackle a classification problem and evaluate its performance. This assignment will cover loading datasets, data preprocessing, Random Forest model training, and model accuracy assessment.

To begin this assignment, we have provided you with an .ipynb file in Codio, which contains the instructions as inline comments. We will be using the Iris Flowers Dataset in sklearn to complete this practice assignment. Details about the dataset are described in the following sections.

For each question, there are clear instructions in each cell. Follow those instructions and write the code after each block of:

```
# YOUR CODE HERE
raise NotImplementedError()
```

Make sure to delete the line raising an error! Please use the exact variable name if it is specified in the comment.

We'll run a Python test script against your program to test whether the code in each cell is correct.

Dataset Overview:

This sklearn Iris dataset consists of 3 different types of irises' (Setosa, Versicolour, and Virginica) petal and sepal length, stored in a 150x4 numpy.ndarray.

The rows being the samples and the columns being: Sepal Length, Sepal Width, Petal Length and Petal Width.

What to submit

Before submitting, click “Validate” to check if your answers are right. When you are satisfied with your answers, in Codio go to the “Education” menu and select “Mark as Completed.”