**Assignment 4 – NumPy and Pandas**

**Objective**

Understand the basics of NumPy arrays and Pandas DataFrames. Perform simple data manipulations and computations.

**Part 1: NumPy Basics**

**Tasks**

1. Import NumPy.
2. Create a 1D NumPy array with values from 10 to 50.
3. Create a 2D NumPy array of shape (3, 3) filled with random integers from 1 to 100.
4. Find the mean, median, and standard deviation of an array.
5. Perform element-wise addition and multiplication of two arrays.

**Part 2: Pandas Basics**

**Tasks**

1. Import Pandas.
2. Create a DataFrame from a dictionary of student names and scores.
3. Add a new column for grades based on the score.
4. Filter students who scored more than 80.
5. Calculate the average score of the class.