Set-2 (CO-3): Python Programming (NumPy, Pandas)

NumPy Programming

1. Write a NumPy program to create an element-wise comparison (greater, greater_equal, less, and less_equal) of two given arrays.
2. Write a NumPy program to create a null vector of size 10 and update the sixth value to 11.
   [0. 0. 0. 0. 0. 0. 0. 0. 0. 0.]
   Update sixth value to 11
   [0. 0. 0. 0. 0. 0. 11. 0. 0. 0.]
3. Write a NumPy program to find common values between two arrays.
   Expected Output:
   Array1: [0 10 20 40 60]
   Array2: [10, 30, 40]
   Common values between two arrays:
   [10 40]
4. Write a NumPy program to create a new shape to an array without changing its data.
   Reshape 3x2:
   [[1 2]
   [3 4]
   [5 6]]
   Reshape 2x3:
   [[1 2 3]
   [4 5 6]]
5. Write a NumPy program to Generate matrix using random integers between 10 and 30
6. Write a NumPy program to Shuffle numbers between 0 and 10
7. Write a NumPy program to create a structured array from given student name, height, class and their data types. Now sort by class, then height if class are equal.
8. Write a NumPy program to round elements of the array to the nearest integer.
9. Write a NumPy program to count the number of days and number of weekdays in August 2022.
10. Write a NumPy program to perform rowwise and column wise sorting of given array.
11. Write a NumPy program to find Rowwise and column wise maximum from two matrix
12. Write a NumPy program to capitalize the first letter, lowercase, uppercase, swapcase, title-case of all the elements of a given array.