Week-2 Assignment

Functions

1. Define a Sum Function Which accepts variable number of integers as an arguments.
2. Create a list With Square of all numbers from 1 to 10 using List Comprehension.
3. Write a lambda function which find square of a number
4. Declare a List With Numbers From 1 to 100 using List Comprehension. Use the lambda and filter function to filter all even numbers.
5. [‘male’,’female’,’male’,’female’,’male’,’female’,’female’,’female’] => replace ‘male’ with 0 and ‘female’ with 1 using lambda function and map function
6. find Fibonacci series for given length using lambda and reduce function
7. Find intersection of two arrays using lambda and filter function

File Handling

1. Python Program to Read the Contents of a File
2. Python Program to Count the Number of Words in a Text File
3. Python Program to Copy the Contents of One File into Another
4. Python Program to Read a File and Capitalize the First Letter of Every Word in the File

Regular Expression

1. Validate email id using Regular Expression
2. Validate a mobile Phone Number with country code using Regular Expression
3. Validate a credit card number using Regular Expression
4. Find all numbers in a string using regular expression: string - adbv345hj43hvb42

Numpy

1.Write a Python program to print the NumPy version in your system.
2. Write a Python program to convert a list of numeric value into a one-dimensional NumPy array.
3. Write a Python program to create an array with values ranging from 12 to 38.

4. Write a Python program to convert a list and tuple into arrays.
5. Write a Python program to find the number of elements of an array, length of one array element in bytes and total bytes consumed by the elements.
6. Write a Python program compare two arrays using numpy.
7. Write a Python program to get the number of nonzero elements in an array.
8. Write a Python program to check whether the numpy array is empty or not.
9. Write a Python program to get the powers of an array values element-wise.
10. Write a Python program to stack two arrays: 1) row-wise 2) column-wise
Arr1 = np.linspace(1,20,50)
Arr2 = np.linspace(21,40,50)