**Session 8 Self Practice Assignment**

**1. Write a Python function to sum all the numbers in a list.  Sample List: (8, 2, 3, 0, 7)  
Expected Output : 20   
2. Write a Python function to calculate the factorial of a number (a non-negative integer). The function accepts the number as an argument.**

**3.Write a Python function to check whether a number is in a given range.**

**4. Write a Python function that accepts a string and calculate the number of upper case letters and lower case letters.**

**Sample String: 'The quick Brow Fox'  
Expected Output:   
No. of Upper case characters : 3  
No. of Lower case Characters : 12  
5. Write a Python function that takes a list and returns a new list with unique elements of the first list.   
Sample List : [1,2,3,3,3,3,4,5]  
Unique List : [1, 2, 3, 4, 5]  
6. Write a Python program to print the even numbers from a given list.   
Sample List: [1, 2, 3, 4, 5, 6, 7, 8, 9] Expected Result: [2, 4, 6, 8]  
7. Write a Python function to check whether a number is perfect or not.   
According to Wikipedia : In number theory, a perfect number is a positive integer that is equal to the sum of its proper positive divisors, that is, the sum of its positive divisors excluding the number itself (also known as its aliquot sum). Equivalently, a perfect number is a number that is half the sum of all of its positive divisors (including itself).  
Example : The first perfect number is 6, because 1, 2, and 3 are its proper positive divisors, and 1 + 2 + 3 = 6. Equivalently, the number 6 is equal to half the sum of all its positive divisors: ( 1 + 2 + 3 + 6 ) / 2 = 6. The next perfect number is 28 = 1 + 2 + 4 + 7 + 14. This is followed by the perfect numbers 496 and 8128.**

**8. Write a python function to print n terms of Fibonacci series**

**9. Write a Python function to check whether a string is a pangram or not.**

**Note : Pangrams are words or sentences containing every letter of the alphabet at least once.  
For example : "The quick brown fox jumps over the lazy dog"   
10. Write a Python program that accepts a hyphen-separated sequence of words as input and prints the words in a hyphen-separated sequence after sorting them alphabetically.   
Sample Items: green-red-yellow-black-whiteExpected Result: black-green-red-white-yellow**