CS 313: Data Science Lab – I (Python/R)

Assignment-1

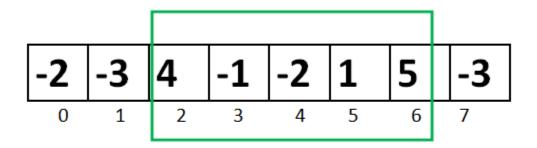## Submission Deadline: 18-09-2020 07:45 PM

NOTE: Do not use dictionary, try to do using list

1. Input two numbers and print area and perimeter of a rectangle

2. Input number of terms, first term, second term, and output fibonacci series up to inputted number of terms.

3. Find the factorial of an inputted number. If the number is negative, take its modulus and then find the factorial

4. Print the first n terms of an arithmetic progression. Input the number of terms as n, the start term, and the value of the common difference.

5. Input two numbers and find their GCD and LCM.

6. Input a number and check if it is palindrome or not.

7. Input two strings and check if they are anagram strings (i.e. having the same number of each character in the alphabet, like root and troo are anagram since they both have 1 t, 2 o, and 1 r).

8. Input a string and print the first non-repeated character in the string.

9. Input a string and print all the repeated words in the string.

10. Input a string and print the frequency of the words in the string.

11. Input a string (like fdawarqw1000000110101dsgsddsg0001) and print the longest binary combination in the string. For instance, in this case, it would be 1000000110101.

12. Input an array of 10 elements. Find and print the maximum sub-array sum (as well as the elements producing that sum on being added).

Largest Subarray Sum Problem

-2	-3	4	-1	-2	1	5	-3
0	1	2	3	4	5	6	7

4 + (-1) + (-2) + 1 + 5 = 7

Maximum Contiguous Array Sum is 7