

Python Practical 1st October

1) WAP to count unique items in a list of integers. (You are not allowed to use a dictionary/set data structure.)

Input: 10 45 67 10 45 11

Output: 4

2) WAP to find the sum of unique items in a list of integers using list comprehension.

Input: 1 2 3 2 4 5 4 6

Output: 21

3) Given a sentence, return the sentence with all its letters transposed by 1 in the alphabet. [Use list comprehension]

Input - 'the quick brown fox jumps over the lazy dog'

Output - 'uif rvjdl cspxo gpy kvnqt pwfs uif mbay eph'

4) Given a list of numbers, return the list with all even numbers doubled, and all odd numbers turned negative. [Use list comprehension]

5) Write a function that takes a list of numbers as input from the user and produces the corresponding cumulative list where each element in the list present at index i is the sum of elements at index $j \leq i$.

Input: 1 2 3 4

Output: [1, 3, 6, 10]

6) Write a function that takes n as an input and creates a list of n lists such that i th list contains the first five multiples of i .

Input: 5

Output: [[1, 2, 3, 4, 5], [2, 4, 6, 8, 10], [3, 6, 9, 12, 15], [4, 8, 12, 16, 20], [5, 10, 15, 20, 25]]