**List Assignment**

1. Write a Python program to sum all the items in a list.
2. Write a Python program to get the largest number and smallest number from a list.
3. Write a Python program to count the number of strings where the string length is 2 or more and the first and last character are same from a given list of strings.    
   Sample List : ['abc', 'xyz', 'aba', '1221']  
   Expected Result : 2
4. Write a Python program to remove duplicates from a list.
5. Write a Python program to find the list of words that are longer than n from a given list of words.
6. Write a Python program to print a specified list after removing the 0th, 4th and 5th elements.   
   Sample List : ['Red', 'Green', 'White', 'Black', 'Pink', 'Yellow']  
   Expected Output : ['Green', 'White', 'Black']
7. Write a Python program to print the numbers of a specified list after removing even numbers from it.
8. Write a Python program to generate and print a list of first and last 5 elements where the values are square of numbers between 1 and 30 (both included).
9. Write a Python program to generate and print a list except for the first 5 elements, where the values are square of numbers between 1 and 30 (both included).
10. Write a Python program to find the index of an item in a specified list.
11. Write a Python program to find the second smallest number and second largest number in a list.
12. Write a Python program to get unique values from a list.
13. Write a Python program to get the frequency of the elements in a list.
14. Write a Python program to count the number of elements in a list within a specified range.
15. Write a Python program to generate all sublists of a list.
16. Write a Python program to create a list by concatenating a given list which range goes from 1 to n.   
    Sample list : ['p', 'q']  
    n =5  
    Sample Output : ['p1', 'q1', 'p2', 'q2', 'p3', 'q3', 'p4', 'q4', 'p5', 'q5']
17. Write a Python program to find common items from two lists.
18. Write a Python program to change the position of every nth value with the (n+1)th in a list.   
    Sample list: [0,1,2,3,4,5]  
    Expected Output: [1, 0, 3, 2, 5, 4]
19. Write a Python program to convert a list of multiple integers into a single integer.   
    Sample list: [11, 33, 50]  
    Expected Output: 113350
20. Write a Python program to split a list into different variables.
21. Write a Python program to generate groups of five consecutive numbers in a list.
22. Write a Python program to convert a pair of values into a sorted unique array.
23. Write a Python program to select the odd items of a list.
24. Write a Python program to insert an element before each element of a list.
25. Write a Python program to split a list every Nth element.   
    Sample list: ['a', 'b', 'c', 'd', 'e', 'f', 'g', 'h', 'i', 'j', 'k', 'l', 'm', 'n']  
    Expected Output: [['a', 'd', 'g', 'j', 'm'], ['b', 'e', 'h', 'k', 'n'], ['c', 'f', 'i', 'l']]
26. Write a Python program to compute the similarity between two lists.   
    Sample data: ["red", "orange", "green", "blue", "white"], ["black", "yellow", "green", "blue"]  
    Expected Output:   
    Color1-Color2: ['white', 'orange', 'red']  
    Color2-Color1: ['black', 'yellow']
27. Write a Python program to insert a given string at the beginning of all items in a list.   
    Sample list : [1,2,3,4], string : emp  
    Expected output : ['emp1', 'emp2', 'emp3', 'emp4']
28. Write a Python program to find the list in a list of lists whose sum of elements is the highest.   
    Sample lists: [1,2,3], [4,5,6], [10,11,12], [7,8,9]  
    Expected Output: [10, 11, 12]
29. Write a Python program to extend a list without append.   
    Sample data: [10, 20, 30]  
    [40, 50, 60]  
    Expected output : [40, 50, 60, 10, 20, 30]
30. Write a Python program to remove duplicates from a list of lists.   
    Sample list : [[10, 20], [40], [30, 56, 25], [10, 20], [33], [40]]  
    New List : [[10, 20], [30, 56, 25], [33], [40]]

**Tuple Assignment:**

1. Write a Python program to create a tuple with different data types and print one item.
2. Write a Python program to unpack a tuple in several variables.
3. Write a Python program to add an item in a tuple. Write the output clearly?
4. Write a Python program to convert a tuple to a string.
5. Write a Python program to get the 4th element and 4th element from last of a tuple.
6. Write a Python program to find the repeated items of a tuple.
7. Write a Python program to check whether an element exists within a tuple.
8. Write a Python program to convert a list to a tuple.
9. Write a Python program to remove an item from a tuple.
10. Write a Python program to slice a tuple.
11. Write a Python program to find the index of an item of a tuple.
12. Write a Python program to find the length of a tuple.
13. Write a Python program to reverse a tuple.
14. Write a Python program to replace last value of tuples in a list.   
    Sample list: [(10, 20, 40), (40, 50, 60), (70, 80, 90)]  
    Expected Output: [(10, 20, 100), (40, 50, 100), (70, 80, 100)]
15. Write a Python program to replace last value of tuples in a list.   
    Sample data: [(), (), ('',), ('a', 'b'), ('a', 'b', 'c'), ('d')]  
    Expected output: [('',), ('a', 'b'), ('a', 'b', 'c'), 'd']
16. Write a Python program to sort a tuple by its float element.   
    Sample data: [('item1', '12.20'), ('item2', '15.10'), ('item3', '24.5')]  
    Expected Output: [('item3', '24.5'), ('item2', '15.10'), ('item1', '12.20')]
17. Write a Python program to count the elements in a list until an element is a tuple.