Practice Programs

1. Write a Python program to remove duplicates from a list.
2. 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
3. Write a Python program to print the numbers of a specified list after removing even numbers from it.
4. Write a Python program to generate all permutations of a list.
5. Write a Python program to convert a list of characters into a string.
6. Write a Python program to convert a string to a list.
7. Write a Python program to append a list to the second list.
8. Write a python program to check whether two lists are circularly identical.
9. Write a Python program to find the second smallest and largest number in a list.
10. Write a Python program to get the frequency of the elements in a list.
11. 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']
12. Write a Python program to convert list to list of dictionaries.
    Sample lists: ["Black", "Red", "Maroon", "Yellow"], ["#000000", "#FF0000", "#800000", "#FFFF00"]
    Expected Output: [{'color_name': 'Black', 'color_code': '#000000'}, {'color_name': 'Red', 'color_code': '#FF0000'}, {'color_name': 'Maroon', 'color_code': '#800000'}, {'color_name': 'Yellow', 'color_code': '#FFFF00'}]
13. Write a Python program to replace the last element in a list with another list.
    Sample data : [1, 3, 5, 7, 9, 10], [2, 4, 6, 8]
    Expected Output : [1, 3, 5, 7, 9, 2, 4, 6, 8]
14. 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]
15. 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]
16. Write a Python program to get the depth of a dictionary.
17. Write a Python script to sort (ascending and descending) a dictionary by value.
18. Write a Python script to concatenate following dictionaries to create a new one. Go to the editor
    Sample Dictionary :
    dic1={1:10, 2:20}
    dic2={3:30, 4:40}
    dic3={5:50,6:60}
    Expected Result : {1: 10, 2: 20, 3: 30, 4: 40, 5: 50, 6: 60}
19. Write a Python script to check if a given key already exists in a dictionary.

20. Write a Python program to remove duplicates from Dictionary.
21. Write a Python program to combine two dictionary adding values for common keys.
    d1 = {'a': 100, 'b': 200, 'c':300}
    d2 = {'a': 300, 'b': 200, 'd':400}
    Sample output: Counter({'a': 400, 'b': 400, 'd': 400, 'c': 300})
22. Write a Python program to create and display all combinations of letters, selecting each letter from a different key in a dictionary.
    Sample data : {'1':['a','b'], '2':['c','d']}
    Expected Output:
    ac
    ad
    bc
    bd
23. Write a Python program to create a dictionary from a string. Note: Track the count of the letters as values from the string.
24. Write a Python program to get the top three items in a shop.
    Sample data: {'item1': 45.50, 'item2':35, 'item3': 41.30, 'item4':55, 'item5': 24}
    Expected Output:
    item4 55
    item1 45.5
    item3 41.3
25. Write a Python program to sort dictionary by value.
    Sample data : {'Math':81, 'Physics':83, 'Chemistry':87}
    Expected data: [('Chemistry', 87), ('Physics', 83), ('Math', 81)]
26. Write a Python program to match key values in two dictionaries.
    Sample dictionary: {'key1': 1, 'key2': 3, 'key3': 2}, {'key1': 1, 'key2': 2}
    Expected output: key1: 1 is present in both x and y
27. 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)]
28. 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')]
29. Write a Python program to create union, intersection, set difference of sets.
30. Write a Python program for issubset and issuperset for any given set.