

**ASSIGNMENT QUESTIONS ON LIST DATATYPE**

1.Given a list, write a Python program to swap first and last element of the list.

2.

* Create an empty list named my\_list.
* Append the integers 1, 2, and 3 to the list.
* Print the final contents of the list.

3. Given the list numbers = [4, 2, 7, 1, 9], use a list function to sort it in descending order. Print the sorted list.

4. Create a list named fruits with elements 'apple', 'banana', 'orange', 'grape', and 'kiwi’. Use list slicing to create a new list containing the first three fruits. Print the new list.

5. Create a list named colours with elements 'red', 'green', 'blue', and 'yellow’. Replace 'green' with 'purple' in the list. Print the modified list.

6. Create two lists, list1 and list2, with any elements of your choice. Concatenate the two lists to create a new list named combined\_list. Print the combined\_list.

7. Given the list numbers = [10, 20, 30, 40, 50], remove the element '30'.Print the modified list.

8. Given the list letters = ['a', 'b', 'c', 'd', 'e'], reverse the order of its elements. Print the reversed list.

9. Create a list named numbers with repeated occurrences of the number 7. Check how many times the number 7 appears in the list. Print the count.

10. Write a Python program to find sum of elements in list?

1. Write a Python program to Multiply all numbers in the list?
2. Write a Python program to find smallest number in a list?
3. Write a Python program to find largest number in a list?
4. Write a Python program to find second largest number in a list?
5. Write a Python program to find N largest elements from a list?
6. Write a Python program to print even numbers in a list?
7. Write a Python program to print odd numbers in a List?
8. Write a Python program to Remove empty List from List?
9. Write a Python program to Cloning or Copying a list?
10. Write a Python program to Count occurrences of an element in a list?
11. Reverse a list in Python
12. Concatenate two lists index-wise

Given:

list1 = ["M", "na", "i", "Ke"]

list2 = ["y", "me", "s", "lly"]

Expected output: ['My', 'name', 'is', 'Kelly']

1. Turn every item of a list (user input) into its square
2. Concatenate two lists in the following order

Given:

list1 = ["Hello ", "take "]

list2 = ["Dear", "Sir"]

Expected output: ['Hello Dear', 'Hello Sir', 'take Dear', 'take Sir']

1. Iterate both lists simultaneously

Given:

list1 = [10, 20, 30, 40]

list2 = [100, 200, 300, 400]

Expected output:

10 400

20 300

30 200

40 100

1. Remove empty strings from the list of strings: list1 = ["Mike", "", "Emma", "Kelly", "", "Brad"]
2. Write a program to add item 7000 after 6000 in the following Python List [10, 20, [300, 400, [5000, 6000], 500], 30, 40]
3. You have given a nested list. Write a program to extend it by adding the sublist ["h", "i", "j"] in such a way that it will look like the following list.

Given List:

list1 = ["a", "b", ["c", ["d", "e", ["f", "g"], "k"], "l"], "m", "n"]

# sub list to add

sub\_list = ["h", "i", "j"]

Expected Output:

['a', 'b', ['c', ['d', 'e', ['f', 'g', 'h', 'i', 'j'], 'k'], 'l'], 'm', 'n']

1. You have given a Python list. Write a program to find value 20 in the list, and if it is present, replace it with 200. Only update the first occurrence of an item.

Given: list1 = [5, 10, 15, 20, 25, 50, 20]

1. Given a Python list, write a program to remove all occurrences of item 20.

Given: list1 = [5, 20, 15, 20, 25, 50, 20]

1. Rotate the characters in a string by a given number (e.g., “hello” rotated by 2 becomes “lohel”).
2. Find the minimum and maximum values in a list of integers.
3. Implement a method to perform basic string compression using the counts of repeated characters. For example, the string aabcccccaaa would become a2b1c5a3.
4. Given two lists, write a program to find the intersection of these two lists.
5. Sort a list of integers without using any built-in sort functions.

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