

Lab 2 Task : Write a program to find the concatenation of two lists using function for each 6 methods ¶

Program logic

1. Write the function for each of the six methods of list concatenation
2. Ask the user to which method for concatenation
3. Call the respective function and display the concatenation of two lists

Define functions for each of the six methods

Method 1: Using + Operator

In [22]:

```
def method1(l1,l2):  
    return l1+l2
```

Method 2: Using * operator

In [1]:

```
def method2(l1,l2):  
    return [*l1,*l2]
```

Method 3: Union of two List Using set()

In [2]:

```
def method3(l1,l2):  
    return list(set(l1+l2))
```

Method 4: Using itertools.chain

In [3]:

```
def method4(l1,l2):  
    import itertools  
    return list(itertools.chain(l1,l2))
```

Method 5: Using Extend method

In [20]:

```
def methods(l1,l2):  
    l1.extend(l2)  
    return l1
```

Method 6: Using append method

In []:

```
def methods(l1,l2):  
    for i in l2:  
        l1.append(i)  
    print("Concatenation of list1 and list2 =",l1)
```

Create Two Lists

In []:

```
l1=[2,4,6,7,8,9]  
l2=[3,8,5,7,33,44]
```

Ask The User which method to use for concatenation

```
print("Select Which method to use for concatenation ")  
print("1.using + operator 2.using * operator 3.Union of two lists using set() choice =  
int(input("Enter your choice:"))  
if choice == 1:  
    res=method1(l1,l2)  
    print("Concatenation of list1 {} and list2 {} using method 1 is {}".format(l1,elif  
choice == 2:  
    res=method2(l1,l2)  
    print("Concatenation of list1 {} and list2 {} using method 2 is {}".format(l1,elif  
choice == 3:  
    res=method3(l1,l2)  
    print("Concatenation of list1 {} and list2 {} using method 3 is {}".format(l1,elif  
choice == 4:  
    res=method4(l1,l2)  
    print("Concatenation of list1 {} and list2 {} using method 4 is {}".format(l1,elif  
choice == 5:  
    res=method6(l1,l2)  
    print("Concatenation of list1 {} and list2 {} using method 5 is {}".format(l1,elif  
choice == 6:  
    res=method1(l1,l2)  
    print("Concatenation of list1 {} and list2 {} using method 6 is {}".format(l1,  
    else:  
        print("Invalid Choice")
```

In []:

