

Assignment No.10

#Write a program to find sum of all elements of list.

```
list = [10, 20, 30, 40, 50]
total = 0
for num in list:
    total += num
print("The sum of all elements in the list is:", total)
```

#Write a program to find maximum and minimum element in a list.

```
list = [45, 13, 78, 22, 90, 34, 5, 100]
maximum = list[0]
minimum = list[0]
for num in list:
    if num > maximum:
        maximum = num
    if num < minimum:
        minimum = num
print("maximum number:", maximum)
print("minimum number:", minimum)
```

#Write a program to print all numbers which are divisible by m and n in the list.

```
def divisible(m,n):
    list1 = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
    result = 0
    for i in list1:
        if (i % m == 0 and i % n == 0):
            result = result + 1
    return result
print("Divisible numbers in list are:",divisible(6,2))
```

#Write a program to reverse the list.

```
def reverse_list(revlist):
    reversed_list=[]
    for i in range(len(revlist)-1,-1,-1):
        reversed_list.append(revlist[i])
    return reversed_list
li=[10,20,30,40,50,60,70,80]
reversed_list=reverse_list(li)
print(f'Reversed list is : {reversed_list}')
```

#Accept a number from user and check if this element is present in the list or #not. Also tell how many times it is present in the list.

```
def count_Ele(list,ele):
    count=0
    for i in list:
        if(i == ele):
            count+=1
    return count
list=[10,10,20,10,30,40,10,20,30,20]
ele=int(input("Enter a number to search in the list: "))
print("Count of element is : ",count_Ele(list,ele))
```

#Write a program to remove duplicates from the list.

```
def remove_duplicate(list):
    list1=[]
    for i in list:
        if i not in list1:
            list1.append(i)
    return list1
li=[10,10,20,30,40,50,30,10,50,60]
list1=remove_duplicate(li)
```

```
print(f'List after removing duplicate elements:{list1}')
```

#Write a program to remove all occurrences of a given element in the list.

```
def remove_occurance(list,remove_element):
```

```
    li=[]
```

```
    for i in list:
```

```
        if i != remove_element:
```

```
            li.append(i)
```

```
    return li
```

```
l=[1, 2, 3, 4, 5,2, 3, 4, 5, 6]
```

```
remove_element=int(input("Enter removing value in list:"))
```

```
li=remove_occurance(l,remove_element)
```

```
print(f'List after removing occurance elements:{li}')
```

#Write a program to print list after removing even numbers.

```
def even_num(list):
```

```
    for i in list:
```

```
        if(i % 2 == 0):
```

```
            list.remove(i)
```

```
    return list
```

```
list=[1, 2, 3, 4, 5,6, 7, 8, 9, 10]
```

```
print("List after removing even numbers:",even_num(list))
```

#Write a program of having n number of elements in the list and find out even

#and odd elements in that list and then create two separate lists which will have

#Write a program of having n number of elements in the list and find out even

```
def even_odd(list):
```

```
    even_list=[]
```

```
    odd_list=[]
```

```
    for element in list:
```

```
        if(element % 2 == 0):
```

```

        even_list.append(element)
    else:
        odd_list.append(element)
    return even_list , odd_list
list=[1, 2, 3, 4, 5,6, 7, 8, 9, 10]
even, odd =even_odd(list)
print("Even numbers list:",even)
print("Odd numbers list:",odd)

```

#Write a program to find the second largest element in the list.

```

list=[1,5,7,8,50,80,40,33]
max=list[0]
sec_larg_element=0
for i in range(0,len(list)):
    if(max<list[i]):
        sec_larg_element=max
        max=list[i]
    elif(sec_larg_element<list[i]):
        sec_larg_element=list[i]
print(f'Second largest element in the list : {sec_larg_element}')

```

#Write a program to create a new list from existing list which contains cube of each number of list.

```

def cube_list(Existing_list):
    cubed_list=[]
    for num in Existing_list:
        cube=num*num*num
        cubed_list.append(cube)
    return cubed_list

```

```
Existing_list = [1, 2, 3, 4, 5]
cubed_list = cube_list(Existing_list)
print("Original list:",Existing_list)
print("Cubed list:",cubed_list)
```

#Write a program to create three lists of numbers, their squares and cubes.

```
def lists(n):
    numbers = []
    squares = []
    cubes = []
    for i in range(1, n + 1):
        numbers.append(i)
        squares.append(i * i)
        cubes.append(i * i * i)
    return numbers, squares, cubes

n = 5
numbers, squares, cubes = lists(n)
print("Numbers:", numbers)
print("Squares:", squares)
print("Cubes:", cubes)
```

#Write a program to create a duplicate of an existing list. It should not point to same list.

```
def duplicate_list(original_list):
    return original_list.copy()

original_list = [1, 2, 3, 4, 5]
copied_list = duplicate_list(original_list)
print("Original list:",original_list)
print("Copied list:",copied_list)
```

