

Assignment 6

Q-1 Write a Python program to interchange first and last elements in a list .

Code and Output:

```
mylist=["pranjal",3,6.76,8,4,2,9,"tiwari"]  
mylist[0],mylist[-1]=mylist[-1],mylist[0]  
print(mylist)
```

```
['tiwari', 3, 6.76, 8, 4, 2, 9, 'pranjal']
```

Q-2 Accept the positions of the elements and Python program to swap two elements in a list.

Code and Output:

```
p1=int(input("enter 1st position"))  
p2=int(input("enter 2nd position"))  
mylist=[3,6.76,"python",8,4,"learning",2,9]  
mylist[p1],mylist[p2]=mylist[p2],mylist[p1]  
print(mylist)
```

```
enter 1st position2  
enter 2nd position-3  
[3, 6.76, 'learning', 8, 4, 'python', 2, 9]
```

Q-3 Write a Python program to check if an element exists in the list.

Code and Output:

```
mylist=[3.14,7.2,9,7,6,4,98,76]
a=int(input("enter an element="))
for i in mylist:
    if i==a:
        print("the element ",a, "is present in the list")
        break;
    else :
        print("the element ",a," is present in the list")
        break;
|
```

```
enter an element=76
the element 76 is present in the list
```

Q-4 Write a Python program to find the sum of elements in the list.

Code and Output:

```
mylist=[3.14,7.2,9,7,6,4,98,76]
sum=0
for i in mylist:
    sum+=i
print("sum of all the elements present in the list are =",sum)
```

```
sum of all the elements present in the list are = 210.34
```

Q-5 Write a Python program to find the smallest and largest number in a list.

Code and Output:

```
mylist=[78,82,99,71,67,43,98,76]
a=min(mylist)
b=max(mylist)
print("smallest number in the list is:",a,"\ngreatest number in the list is:",b)
```

```
smallest number in the list is: 43
greatest number in the list is: 99
```

Q-6 Write a Python program to find the second largest number in a list.

Code and Output:

```
mylist=[782,267,1076,832,199,771,267,546,398]
print(mylist)
print("\t\tlist after sorting")
mylist.sort()
print(mylist)
b=mylist[-2]
print("\nsecond largest number of the list is",b)
```

```
[782, 267, 1076, 832, 199, 771, 267, 546, 398]
          list after sorting
[199, 267, 267, 398, 546, 771, 782, 832, 1076]

second largest number of the list is 832
```

Q-7 Write a Python program to find N largest elements from a list.

Code and Output:

```
mylist=[782,267,1076,832,199,771,267,546,398]
n=int(input("enter the value of n "))
print(mylist)
print("\t\tlist after sorting")
mylist.sort()
print(mylist)
b=mylist[-n]
print("\n ",n,"th largest number of the list is",b)
```

```
enter the value of n  =5
[782, 267, 1076, 832, 199, 771, 267, 546, 398]
          list after sorting
[199, 267, 267, 398, 546, 771, 782, 832, 1076]

  5 th largest number of the list is 546
```

Q-8 Write a Python program to print even numbers in a list

Code and Output:

```
mylist=[782,267,1076,832,199,771,267,546,398]
evenlist=[]
for i in mylist:
    if i%2==0:
        evenlist.append(i)
print("list with even elements are =",evenlist)
```

```
list with even elements are = [782, 1076, 832, 546, 398]
```

Q-9 Write a Python program to print odd numbers in a list .

Code and Output:

```
mylist=[85,93,82,13,2,28,64,53,76,57,29]
oddlist=[]
for i in mylist:
    if i%2!=0:
        oddlist.append(i)
print("list with odd elements are =",oddlist)
```

```
list with odd elements are = [85, 93, 13, 53, 57, 29]
```

Q-10 Make a list of the first 10 letters of the alphabet, then use the slicing to do the following operations:

- Print the first 3 letters of the list
- Print any 3 letters from the middle .

Code and Output:

```
mylist=['a','b','c','d','e','f','g','h','i','j']
a=mylist[0:3]
b=mylist[4:7]
print("first three letters of the list is:",a)
print("three letters from the middle of the list is:",b)
```

```
first three letters of the list is: ['a', 'b', 'c']
three letters from the middle of the list is: ['e', 'f', 'g']
```

Q-11. Write a Python program to find the Sum of all even elements in the existing tuple .

Code and Output:

```
Tuple=(782,267,1076,832,199,771,267,546,398)

sum=0
for i in Tuple:
    if i%2==0:
        sum+=i
print("sum of all even elements in the tuple is:",sum)
```

```
sum of all even elements in the tuple is: 3634
```

Q-12. Write a Python program to accept two tuples from the user and display all combinations of all elements in the form of tuple .

Code and Output:

```
tuple1=(23,43,24,56,45)
tuple2=(64,53,86,87,98)
mylist=[(tuple1[i],tuple2[j]) for i in range(len(tuple1)) for j in range(len(tuple2))]
print(tuple(mylist))
```

```
((23, 64), (23, 53), (23, 86), (23, 87), (23, 98), (43, 64), (43, 53), (43, 86), (43, 87), (43, 98), (24, 64), (24, 53), (24, 86), (24, 87), (24, 98), (56, 64), (56, 53), (56, 86), (56, 87), (56, 98), (45, 64), (45, 53), (45, 86), (45, 87), (45, 98))
```

Q-13. Write a Python program to find a particular element that exists or not if exists then delete an element from the given tuple.

Code and Output:

```
mytuple=(34,66,23,47,12,94)
a=int(input("Enter element you want to delete from tuple: "))
mylist=list(mytuple)
if a in mylist:
    mylist.remove(a)
    print(tuple(mylist))
else:
    print("Element not present in tuple.")
```

```
Enter element you want to delete from tuple: 47
(34, 66, 23, 12, 94)
```