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Python Programming - 2101CS405

Lab - 5

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list

01) WAP to find sum of all the elements in List.

In [2]:
```
list = [10,20,30,40,50]
sum = 0
for i in list:
    sum+=i
else:
    print(f"Sum:{sum}")
```

```
Sum:150
```

02) WAP to find largest element in a List.

In [6]:
```
list = []
n = int(input("Enter List Size:"))

for i in range(0,n):
    element = int(input())
    list.append(element)

large = int()
for j in list:
    if j>large:
        large = j
else:
    print(large)
```

```
Enter List Size3
10
50
20
50
```

03) WAP to split the List into two and append the first part to the end.

In [3]:
```
list = []
n = int(input("Enter List Size:"))

for i in range(0,n):
    element = int(input())
    list.append(element)
mid = int(n/2)
first_list = list[0:mid]
second_list = list[mid:]

newlist = []
newlist.append(second_list)
newlist.append(first_list)
print(newlist)
```

```
Enter List Size:4
1
2
3
4
[[3, 4], [1, 2]]
```

04) WAP to interchange first and last elements in list entered by a user.

In [4]:
```
list = []
n = int(input("Enter List Size:"))

for i in range(0,n):
    element = int(input())
    list.append(element)

list[0],list[-1]=list[-1],list[0]
print(list)
```

```
Enter List Size:3
1
2
3
[3, 2, 1]
```

05) WAP to interchange the elements on two positions entered by a user.

In [31]:
```
list = []
n = int(input("Enter List Size:"))

for i in range(0,n):
    element = int(input())
    list.append(element)

start = int(input("Enter First Possition"))
end = int(input("Enter Second Possition"))
list[start],list[end] = list[end],list[start]
print(list)
```

```
Enter List Size:6
1
2
3
4
5
6
Enter First Possition2
Enter Second Possition4
[1, 2, 5, 4, 3, 6]
```

06) WAP to reverses the list entered by user.

In [7]:
```
list = []
n = int(input("Enter List Size:"))

for i in range(0,n):
    element = int(input())
    list.append(element)
i=0
j=n-1
while i<j:
    temp = list[i]
    list[i] = list[j]
    list[j] = temp
    i+=1
    j-=1
print(list)
```

```
Enter List Size:4
1
2
3
4
[4, 3, 2, 1]
```

07) Python program to remove multiple elements from a list using list comprehension

In [42]:
```
list = []
n = int(input("Enter List Size:"))

for i in range(0,n):
    element = int(input())
    list.append(element)

ans = []
ans=[i for i in list if list.count(i)<2]
print(ans)
```

```
Enter List Size:5
1
2
1
5
6
[2, 5, 6]
```

08) Create a list from the specified start to end index of another list.

In [15]:
```
list = []
n = int(input("Enter List Size:"))

for i in range(0,n):
    element = int(input())
    list.append(element)
start = int(input("Enter Starting Index:"))
end = int(input("Enter Ending Index:"))

ans = []
for i in range(start,end+1):
    ans.append(i)
print(ans)
```

```
Enter List Size:6
1
2
3
4
5
6
Enter Starting Index2
Enter Ending Index4
[2, 3, 4]
```

09) Input comma separated elements, convert into list and print.

In [20]:
```
element = input("Enter list by Comma Seprated:")
list = element.split(",")
print(list)
```

```
Enter list by Comma Seprated:1,2,3,4

---------------------------------------------------------------------------
-
ValueError                                Traceback (most recent call las
t)
Cell In[20], line 1
----> 1 element = int(input("Enter list by Comma Seprated:"))
      2 list = element.split(",")
      3 print(list)

ValueError: invalid literal for int() with base 10: '1,2,3,4'
```

01) WAP to count Even and Odd numbers in a List.

In [21]:
```
list = []
n = int(input("Enter List Size:"))

for i in range(0,n):
    element = int(input())
    list.append(element)
evencount = 0
oddcount = 0
for i in list:
    if(i%2==0):
        evencount+=1
    else:
        oddcount+=1
print(f"Even Number:{evencount}")
print(f"Odd Number:{oddcount}")
```

```
Enter List Size:6
1
2
3
4
5
6
Even Number:3
Odd Number:3
```

02) Python program to find N largest and smallest elements from the list

In [54]:
```
list = []
n = int(input("Enter List Size:"))

for i in range(0,n):
    element = int(input())
    list.append(element)
list.sort()
num = int(input("Enter n Number:"))
max = list[:num-1:-1]
min = list[0:num]
print(f"Large:{max}")
print(f"Smallest:{min}")
```

```
Enter List Size:4
1
2
3
4
Enter n Number:2
Large:[4, 3]
Smallest:[1, 2]
```

03) WAP to print duplicates from a list of integers

In [28]:
```
list = []
n = int(input("Enter List Size:"))

for i in range(0,n):
    element = int(input())
    list.append(element)
for i in list:
    if list.count(i)>1:
        list.remove(i)
        print("Dupliacte:",i)
```

```
Enter List Size:4
1
2
1
4
Dupliacte: 1
```

In [ ]:

In [ ]: