

```
In [1]: l1=[12,"Hello",56.00,True]

In [2]: l1

Out[2]: [12, 'Hello', 56.0, True]

In [3]: l1[1]="hello"
l1

Out[3]: [12, 'hello', 56.0, True]

In [4]: l2=list()
l2

Out[4]: []

In [5]: data="Good evening"
l3=list(data)
l3

Out[5]: ['G', 'o', 'o', 'd', ' ', ' ', 'e', 'v', 'e', 'n', 'i', 'n', 'g']

In [6]: l4=list([1,2,3])
len(l4)

Out[6]: 3

In [14]: l5=[34,54,"j",True,[3,5,6],[5,7,9]]
len(l5)

Out[14]: 6

In [9]: l5[2]

Out[9]: 'j'

In [10]: l5[4][1]

Out[10]: 5

In [17]: # sum of all elements in list
l6=[1,5,9]
sum=0
#logic 1
for i in l6:
    sum+=i
print(sum)

#logic 2
sum=0
for i in range(0,len(l6)):
    sum+=l6[i]
print(sum)

15
15
15

In [12]: ln=range(1,11)
print(ln)

[range(1, 11)]

In [14]: ln=list()

In [15]: ln

Out[15]: []

In [17]: ln.clear()
for i in range(1,11):
    ln.append(i)
print(ln)

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

In [13]: # Show sum of nested list element from given list
sum=0
for element in l5:
    if isinstance(element,list):
        print("list is : ",element)
        for i in element:
            sum+=i
        print("Sum of list element : ",sum)
        sum=0
    else :
        pass

list is :  [3, 5, 6]
Sum of list element :  14
list is :  [5, 7, 9]
Sum of list element :  21

In [18]: l5

Out[18]: [34, 54, 'j', True, [3, 5, 6], [5, 7, 9]]

In [19]: l5[1:3]

Out[19]: [54, 'j']

In [21]: l5[-4:-1]

Out[21]: ['j', True, [3, 5, 6]]

In [22]: l5[-5:-3]

Out[22]: [54, 'j']

In [23]: l5[::-1]

Out[23]: [[5, 7, 9], [3, 5, 6], True, 'j', 54, 34]

In [24]: 54 in l5

Out[24]: True

In [25]: l5.count(6)

Out[25]: 0

In [26]: l5[len(l5)-1].count(8)

Out[26]: 0

In [27]: del (l5[2])

In [28]: l5

Out[28]: [34, 54, True, [3, 5, 6], [5, 7, 9]]

In [31]: l5.append(54)

In [32]: l5

Out[32]: [34, 54, True, [3, 5, 6], [5, 7, 9], 45, 54]

In [ ]: 54 in l5 and l5.remove(54)
l5

In [15]: print(l5)
l5.pop(3) #l5.pop()
print(l5)

[34, 54, 'j', True, [3, 5, 6]]
[34, 54, 'j', [3, 5, 6]]

In [12]: l6=["trupti",True,]
l6

Out[12]: ['trupti', True]

In [5]: l8=[3,4,5,6,7,8,8,7,8,9]
print("Max = ",max(l8))
print("Min = ",min(l8))
print("Sum = ",sum(l8))

Max = 9
Min = 3
Sum = 65

In [6]: l8.sort()
l8

Out[6]: [3, 4, 5, 6, 7, 7, 8, 8, 8, 9]

In [7]: l8.sort(reverse=True)
l8

Out[7]: [9, 8, 8, 8, 7, 7, 6, 5, 4, 3]

In [9]: l9=sorted(l8)
print("l9 : ",l9)
print("l8 : ",l8)

l9 : [3, 4, 5, 6, 7, 7, 8, 8, 8, 9]
l8 : [9, 8, 8, 8, 7, 7, 6, 5, 4, 3]

In [10]: l10=["Pune","Nagpur","Jaypur","Chennai"]
l10

Out[10]: ['Pune', 'Nagpur', 'Jaypur', 'Chennai']

In [11]: def sortNylLength(s):
    return len(s)
l10.sort(key=sortNylLength,reverse=True)
l10

Out[11]: ['Chennai', 'Nagpur', 'Jaypur', 'Pune']

In [13]: l11=l8+l10
l11

Out[13]: [9, 8, 8, 8, 7, 7, 6, 5, 4, 3, 'Chennai', 'Nagpur', 'Jaypur', 'Pune']

In [15]: l8*2

Out[15]: [9, 8, 8, 8, 7, 7, 6, 5, 4, 3, 9, 8, 8, 8, 7, 7, 6, 5, 4, 3]

In [19]: l11=[4,5,6]
l12=[1,2,3]
print(id(l11))
print(id(l12))
#l11 is l12
#l11==l12

1737235015744
1737234840000
True

In [36]: # occurences of the given char from list
l10=["Pune","Nagpur","Jaypur","Chennai","Pune","Nagpur"]
l11=input("Enter the Character : ")
count=0
for i in range(len(l10)):
    if(l10[i]==l11):
        count=count+1
print("occurences : ",l11,"occured",count)

Enter the Character : Pune
occurences : Pune occured 2

In [6]: string1=["Pune","Nagpur","Jaypur","Chennai","Pune","Nagpur"]
string2="Pune"
count1=string1.count(string2)
print(count1)
#count2=string1.count(string2)
#print(count2)

2

In [15]: l6=[11,22,33,44]
l5.append(l6)
l5

Out[15]: [34, 54, 'j', True, [3, 5, 6], [5, 7, 9], [11, 22, 33, 44]]

In [4]: clist=["Pune","Nagpur","Jaypur","Chennai","Pune","Nagpur"]
countingDoneList=list()
for city in clist:
    if(city in countingDoneList):
        continue
    else:
        print(city," appears ", city.count(city)," times ")
        countingDoneList.append(city)

Pune appears 2 times
Nagpur appears 2 times
Jaypur appears 1 times
Chennai appears 1 times

In [16]: l6=[-4,34,False]
l5.extend(l6)
l5

Out[16]: [34, 54, 'j', True, [3, 5, 6], [5, 7, 9], [11, 22, 33, 44], -4, 34, False]

In [41]: # show sum of all int values in list
l1=[45,34,5,65]
num=0
for n in l1:
    num+=i
print("Sum of all values : ",num)

Sum of all values : 8

In [52]: # WAP to remove to find duplicate elements in list
list1=[10,20,30,10,50,20,10,60,80,50,40,10]
print("Element list : ",list1)
newlist=[element for n,element in enumerate(list1) if element not in list1[n]]

print("After removing the Duplicate element : ",newlist)

Element list : [10, 20, 30, 10, 50, 20, 10, 60, 80, 50, 40, 10]
After removing the Duplicate element : [10, 20, 30, 50, 60, 80, 40]

In [55]: # WAP to sort the given list
numbers = [1, 3, 4, 2, 5, 3, 5, 8, 9, 0]
print("Given list : ",numbers)
numbers.sort()
print("Sorting the list : ",numbers)

Given list : [1, 3, 4, 2, 5, 3, 5, 8, 9, 0]
Sorting the list : [0, 1, 2, 3, 3, 4, 5, 5, 8, 9]

In [69]: # Write a python program to get the largest number from a list
list1=[10, 50, 60, 120, 20, 15, 564, 40, 758]
print("Given list : ",list1)
prin
t("The Largest Element in this List is : ", max(list1))

Given list : [10, 50, 60, 120, 20, 15, 564, 40, 758]
The Largest Element in this List is : 758

In [91]: # Write a python program to remove duplicates from a list
list1 = [10,25,30,25,14,56,60,40,89,50,40,10,30,60]
print("Duplicate list : ",list1)
duplist = set()
newlist = []
for x in list1:
    if x not in duplist:
        newlist.append(x)
        duplist.add(x)
print("After remove the duplicates : ",duplist)

Duplicate list : [10, 25, 30, 25, 14, 56, 60, 40, 89, 50, 40, 10, 30, 60]
After remove the duplicates : [80, 40, 10, 14, 50, 56, 25, 60, 30]

In [9]: # write a python program to find the list of words that are longer than given words
def long(words,e):
    words=[]
    for i in words:
        if len(i)>len(e):
            word.append(i)
    return word

list1=['have','a','nice','day']
print(list1)
n=input("Enter the Word :")
print(long(list1,n))

['have', 'a', 'nice', 'day']
Enter the Word :a
['have', 'nice', 'day']

In [97]: # Write a python function that takes two lists and returns True if they have at least one common member
list1 = [1, 2, 3, 4, 55]
list2 = [2, 3, 90, 22]
out = any(check in list1 for check in list2)
if out:
    print("True")
else :
    print("False")

True

In [3]: # Write a python program to print a specified list after removing the 0th, 4th and 5th elements.
# Go to the editor
# Sample list:['Red','Green','White','Black','Pink','Yellow']
# Expected Output:['Green','White','Black']
color = ['Red', 'Green', 'White', 'Black', 'Pink', 'Yellow']
color[1:4]

Out[3]: ['Green', 'White', 'Black']

In [95]: # Write a python program to print the numbers of a specified list after removing even numbers from it
list1 = [7,8,120,25,44,20,27,54,67,87,56]
print("list : ", list1)
list1 = [x for x in list1 if x%2!=0]
print("After removing even numbers : ",list1)

List : [7, 8, 120, 25, 44, 20, 27, 54, 67, 87, 56]
After removing even numbers : [7, 25, 27, 67, 87]

In [11]: # WAP to create a list such that new list contains alternate even and odd from given list
l1=[1,2,6,8,7,5,4,33,22,90,67]
epol=[]
opod=[]
j=0
for i in range(0,len(l1)+1,2):
    epol.append(l1[i])
for i in range(1,len(l1),2):
    opod.append(l1[i])

epol.clear()
opod.clear()
for j in l1:
    epol.append(j)
else:
    opol.append(j)
print('epol :',epol)
print('opod :',opod)

epol : [1, 2, 6, 8, 7, 5, 4, 33, 22, 90, 67]
opod : [67]
```