

LIST

```
In [1]: list1=[]
```

```
In [2]: type(list1)
```

```
Out[2]: list
```

```
In [10]: list2=[10,30,60]  
list2
```

```
Out[10]: [10, 30, 60]
```

```
In [11]: list3=[10.77,30.66,60.89]  
list3
```

```
Out[11]: [10.77, 30.66, 60.89]
```

```
In [12]: list4=["one","two","three","four"]  
list4
```

```
Out[12]: ['one', 'two', 'three', 'four']
```

```
In [14]: list5=["aman",9850,[50,20,70,0]]  
list5
```

```
Out[14]: ['aman', 9850, [50, 20, 70, 0]]
```

```
In [16]: len(list3)
```

```
Out[16]: 3
```

```
In [17]: list4
```

```
Out[17]: ['one', 'two', 'three', 'four']
```

```
In [18]: list4[3]
```

```
Out[18]: 'four'
```

```
In [20]: list5
```

```
Out[20]: ['aman', 9850, [50, 20, 70, 0]]
```

```
In [21]: list5[2][2]
```

```
Out[21]: 70
```

```
In [22]: list3
```

```
Out[22]: [10.77, 30.66, 60.89]
```

```
In [24]: list3.count(10.77)
```

```
Out[24]: 1
```

```
In [25]: list3[-1]
```

```
Out[25]: 60.89
```

list slicing

```
In [26]: list4
```

```
Out[26]: ['one', 'two', 'three', 'four']
```

```
In [27]: list4[1:3]
```

```
Out[27]: ['two', 'three']
```

```
In [30]: list4[2:3]
```

```
Out[30]: ['three']
```

```
In [31]: list4[:]
```

```
Out[31]: ['one', 'two', 'three', 'four']
```

Add, Remove, & Change items

```
In [32]: list4
```

```
Out[32]: ['one', 'two', 'three', 'four']
```

```
In [35]: list4.append("five")  
list4
```

```
Out[35]: ['one', 'two', 'three', 'four', 'five', 'five']
```

```
In [37]: list4.insert(0, "zero")  
list4
```

```
Out[37]: ['zero', 'one', 'two', 'three', 'four', 'five', 'five']
```

```
In [38]: list4.pop()
```

```
Out[38]: 'five'
```

```
In [40]: list4.reverse()  
list4
```

```
Out[40]: ['zero', 'one', 'two', 'three', 'four', 'five']
```

```
In [41]: del list4[5]  
list4
```

```
Out[41]: ['zero', 'one', 'two', 'three', 'four']
```

```
In [42]: list5
```

```
Out[42]: ['aman', 9850, [50, 20, 70, 0]]
```

```
In [44]: list5.clear()  
list5
```

```
Out[44]: []
```

```
In [48]: list4.index("one")
```

```
Out[48]: 1
```

Copy List

```
In [49]: list4
```

```
Out[49]: ['zero', 'one', 'two', 'three', 'four']
```

```
In [51]: list9=list4.copy()  
list9
```

```
Out[51]: ['zero', 'one', 'two', 'three', 'four']
```

```
In [52]: list9[4]=4  
list9
```

```
Out[52]: ['zero', 'one', 'two', 'three', 4]
```

Joint Lists

```
In [53]: list4
```

```
Out[53]: ['zero', 'one', 'two', 'three', 'four']
```

```
In [55]: list7=["five","six","seven","eight"]  
list7
```

```
Out[55]: ['five', 'six', 'seven', 'eight']
```

```
In [57]: list6=list4+list7  
list6
```

```
Out[57]: ['zero', 'one', 'two', 'three', 'four', 'five', 'six', 'seven', 'eight']
```

```
In [58]: len(list6)
```

```
Out[58]: 9
```

List Membership

```
In [59]: "seven" in list6
```

```
Out[59]: True
```

```
In [60]: "ten" in list7
```

```
Out[60]: False
```

```
In [61]: if "five" in list4:
          print("presentis present")
        else:
          print("five is not prresent")
```

five is not prresent

Revers and Sort List

```
In [62]: list7
```

```
Out[62]: ['five', 'six', 'seven', 'eight']
```

```
In [64]: list7.reverse()
list7
```

```
Out[64]: ['five', 'six', 'seven', 'eight']
```

```
In [65]: list7=list7[::-1]
list7
```

```
Out[65]: ['eight', 'seven', 'six', 'five']
```

```
In [82]: list2
```

```
Out[82]: [10, 50, 30, 50, 50, 50, 50, 50, 60]
```

```
In [79]: list2.insert(1,50)
list2
```

```
Out[79]: [10, 50, 30, 50, 50, 50, 50, 50, 60]
```

```
In [77]: list2.sort()
list2
```

```
Out[77]: [10, 30, 50, 50, 50, 50, 50, 50, 60]
```

```
In [83]: list2.reverse()
list2
```

```
Out[83]: [60, 50, 50, 50, 50, 50, 30, 50, 10]
```

Loop use in List

```
In [86]: lista=(1,3,5,7,9,11,13,17)
lista
```

```
Out[86]: (1, 3, 5, 7, 9, 11, 13, 17)
```

```
In [87]: for i in lista:
          print(i)
```

```
1
3
5
7
9
11
13
17
```

```
In [92]: for i in enumerate lista:
         print(i)
```

```
Cell In[92], line 1
    for i in enumerate lista:
                        ^
SyntaxError: invalid syntax
```

```
In [ ]: for i in enumerate lista:
```