

# LIST

```
In [2]: l=[10,20,30,40,50.60]
```

```
In [3]: l
```

```
Out[3]: [10, 20, 30, 40, 50.6]
```

```
In [4]: l[0]
```

```
Out[4]: 10
```

```
In [5]: l[0]=100
```

```
In [6]: ;
```

```
Out[6]: ''
```

```
In [7]: l
```

```
Out[7]: [100, 20, 30, 40, 50.6]
```

```
In [8]: l[-1]=1000
```

```
1
```

```
Out[8]: [100, 20, 30, 40, 1000]
```

```
In [9]: l1=[1,2.2,3,4,1+2j,True, 'vamshi']
```

```
In [10]: l1
```

```
Out[10]: [1, 2.2, 3, 4, (1+2j), True, 'vamshi']
```

```
In [11]: l2=l1.extend
```

```
In [12]: l2
```

```
Out[12]: <function list.extend(iterable, /)>
```

```
In [13]: l
```

```
Out[13]: [100, 20, 30, 40, 1000]
```

```
In [14]: l1
```

```
Out[14]: [1, 2.2, 3, 4, (1+2j), True, 'vamshi']
```

```
In [15]: l2
```

```
Out[15]: <function list.extend(iterable, /)>
```

```
In [16]: l2=[ ]  
12
```

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

```
In [18]: l2.extend(l1)
```

```
l2
```

```
In [19]: l2
```

```
Out[19]: [1, 2.2, 3, 4, (1+2j), True, 'vamshi']
```

```
In [20]: l2.extend(l)
```

```
In [21]: l2
```

```
Out[21]: [1, 2.2, 3, 4, (1+2j), True, 'vamshi', 100, 20, 30, 40, 1000]
```

```
In [22]: print(l)
```

```
[100, 20, 30, 40, 1000]
```

```
In [24]: print(l1)
```

```
[1, 2.2, 3, 4, (1+2j), True, 'vamshi']
```

```
In [25]: print(l2)
```

```
[1, 2.2, 3, 4, (1+2j), True, 'vamshi', 100, 20, 30, 40, 1000]
```

```
In [26]: print(l)  
print(l1)  
print(l2)
```

```
[100, 20, 30, 40, 1000]
```

```
[1, 2.2, 3, 4, (1+2j), True, 'vamshi']
```

```
[1, 2.2, 3, 4, (1+2j), True, 'vamshi', 100, 20, 30, 40, 1000]
```

```
In [27]: l
```

```
Out[27]: [100, 20, 30, 40, 1000]
```

```
In [28]: l.index(40)
```

```
Out[28]: 3
```

```
In [29]: l.index(200)
```

```
-----  
ValueError  
Cell In[29], line 1  
----> 1 l.index(200)
```

Traceback (most recent call last)

```
ValueError: 200 is not in list
```

```
In [30]: l.insert(4, 50)
```

```
In [31]: l
```

```
Out[31]: [100, 20, 30, 40, 50, 1000]
```

```
In [32]: l.insert(0,0)
```

```
In [33]: l
```

```
Out[33]: [0, 100, 20, 30, 40, 50, 1000]
```

```
In [34]: for i in l1:  
    print(i)
```

```
1  
2.2  
3  
4  
(1+2j)  
True  
vamshi
```

```
In [35]: for i in enumerate(l1):  
    print(i)
```

```
(0, 1)  
(1, 2.2)  
(2, 3)  
(3, 4)  
(4, (1+2j))  
(5, True)  
(6, 'vamshi')
```

```
In [36]: l
```

```
Out[36]: [0, 100, 20, 30, 40, 50, 1000]
```

```
In [37]: l.pop()
```

```
Out[37]: 1000
```

```
In [38]: l
```

```
Out[38]: [0, 100, 20, 30, 40, 50]
```

```
In [39]: l.pop(1)
```

```
Out[39]: 100
```

```
In [40]: 1
```

```
Out[40]: [0, 20, 30, 40, 50]
```

```
In [41]: l.insert(1,10)
```

```
In [42]: 1
```

```
Out[42]: [0, 10, 20, 30, 40, 50]
```

```
In [43]: 11
```

```
Out[43]: [1, 2.2, 3, 4, (1+2j), True, 'vamshi']
```

```
In [44]: 12
```

```
Out[44]: [1, 2.2, 3, 4, (1+2j), True, 'vamshi', 100, 20, 30, 40, 1000]
```

```
In [45]: l1.remove(1)
```

```
In [46]: 11
```

```
Out[46]: [2.2, 3, 4, (1+2j), True, 'vamshi']
```

```
In [47]: l1.remove(2.2)
```

```
In [48]: 11
```

```
Out[48]: [3, 4, (1+2j), True, 'vamshi']
```

```
In [49]: l1.insert(1,2.0)
```

```
In [50]: 11
```

```
Out[50]: [3, 2.0, 4, (1+2j), True, 'vamshi']
```

```
In [51]: l1.insert(0,1)
```

```
In [52]: 11
```

```
Out[52]: [1, 3, 2.0, 4, (1+2j), True, 'vamshi']
```

```
In [53]: l1.remove(2.0)
```

```
In [54]: 11
```

```
Out[54]: [1, 3, 4, (1+2j), True, 'vamshi']
```

```
In [55]: l1.insert(1,2.0)
```

```
In [56]: l1
```

```
Out[56]: [1, 2.0, 3, 4, (1+2j), True, 'vamshi']
```

```
In [57]: l1.reverse()
```

```
In [58]: l1
```

```
Out[58]: ['vamshi', True, (1+2j), 4, 3, 2.0, 1]
```

```
In [59]: l1.reverse()
```

```
In [60]: l1
```

```
Out[60]: [1, 2.0, 3, 4, (1+2j), True, 'vamshi']
```

```
In [61]: l1
```

```
Out[61]: [0, 10, 20, 30, 40, 50]
```

```
In [62]: l3=[10,40,40,20,80]
```

```
In [63]: l3
```

```
Out[63]: [10, 40, 40, 20, 80]
```

```
In [64]: l3.sort()
```

```
In [65]: l3
```

```
Out[65]: [10, 20, 40, 40, 80]
```

```
In [66]: l3.sort(reverse=True)
```

```
In [67]: l3
```

```
Out[67]: [80, 40, 40, 20, 10]
```

```
In [68]: l3.sort(reverse=True)
```

```
In [69]: l3
```

```
Out[69]: [80, 40, 40, 20, 10]
```

```
In [70]: l4=[True,False]
```

```
In [71]: l4.sort()
```

```
In [72]: 14
```

```
Out[72]: [False, True]
```

```
In [73]: 15=['m','A','t']
```

```
In [74]: 15
```

```
Out[74]: ['m', 'A', 't']
```

```
In [75]: 15.sort()
```

```
In [76]: 15
```

```
Out[76]: ['A', 'm', 't']
```

```
In [77]: 13.sort()
```

```
In [78]: 13
```

```
Out[78]: [10, 20, 40, 40, 80]
```

```
In [79]: 1
```

```
Out[79]: [0, 10, 20, 30, 40, 50]
```

```
In [80]: 10 in 1
```

```
Out[80]: True
```

```
In [81]: 200 in 1
```

```
Out[81]: False
```

```
In [82]: all(1)
```

```
Out[82]: False
```

```
In [83]: 1.remove(0)  
1
```

```
Out[83]: [10, 20, 30, 40, 50]
```

```
In [84]: any(1)
```

```
Out[84]: True
```

```
In [86]: all(1)
```

```
Out[86]: True
```

```
In [88]: l.append(0)  
1
```

```
Out[88]: [10, 20, 30, 40, 50, 0, 0]
```

```
In [89]: all(l)
```

```
Out[89]: False
```

```
In [90]: any(l)
```

```
Out[90]: True
```

```
In [91]: 15
```

```
Out[91]: ['A', 'm', 't']
```

```
In [93]: 16=[0,0]
```

```
In [94]: 16
```

```
Out[94]: [0, 0]
```

```
In [96]: any(l)
```

```
Out[96]: True
```

```
In [97]: type(l)
```

```
Out[97]: list
```

## TUPLE

```
In [98]: t = (10,20,30)
```

```
In [99]: t
```

```
Out[99]: (10, 20, 30)
```

```
In [100...]: type(t)
```

```
Out[100...]: tuple
```

```
In [101...]: t.count(10)
```

```
Out[101...]: 1
```

```
In [102...]: t1=(1,1,3,3,3,4)
```

```
In [103... t1
```

```
Out[103... (1, 1, 3, 3, 3, 4)
```

```
In [105... t1.count(1)
```

```
Out[105... 2
```

```
In [106... t1.index(4)
```

```
Out[106... 5
```

```
In [108... t1.index(1)
```

```
Out[108... 0
```

```
In [109... for i in t1:  
      print(i)
```

```
1  
1  
3  
3  
3  
4
```

```
In [110... t1[:]
```

```
Out[110... (1, 1, 3, 3, 3, 4)
```

```
In [111... t1[1:2]
```

```
Out[111... (1,)
```

```
In [112... t1
```

```
Out[112... (1, 1, 3, 3, 3, 4)
```

```
In [114... t1[1:-1]
```

```
Out[114... (1, 3, 3, 3)
```

```
for i in enumerate(t1): print(i)
```

```
In [116... for i in enumerate(t1):  
      print(i)
```

```
(0, 1)  
(1, 1)  
(2, 3)  
(3, 3)  
(4, 3)  
(5, 4)
```

```
In [118]: t2=[1,2,3,True,False,(1+4j),1,'Hi']
```

```
In [119]: t2
```

```
Out[119]: ([1, 2, 3], True, False, (1+4j), 1, 'Hi')
```

```
In [ ]: te
```