

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  
l
```

```
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=[]  
l2
```

```
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                                Traceback (most recent call last)  
Cell In[29], line 1  
----> 1 l.index(200)  
  
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]: l1

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

In [44]: l2

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

In [45]: l1.remove(1)

In [46]: l1

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

In [47]: l1.remove(2.2)

In [48]: l1

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

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

In [50]: l1

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

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

In [52]: l1

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

In [53]: l1.remove(2.0)

In [54]: l1

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]: l
```

```
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
```