

4th march list types

```
In [3]: l=[10,20,30,40,40]
l
```

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

```
In [5]: l1=[10,20,30,40,40,2.3,True,(1+2j),50]
l1
```

```
Out[5]: [10, 20, 30, 40, 40, 2.3, True, (1+2j), 50]
```

```
In [7]: print(len(l))
print(len(l1))
```

```
5
9
```

```
In [9]: l
```

```
Out[9]: [10, 20, 30, 40, 40]
```

```
In [11]: for i in l:
print(i)
```

```
10
20
30
40
40
```

```
In [13]: l.append([1,2,3,'hi']) #nested list
l
```

```
Out[13]: [10, 20, 30, 40, 40, [1, 2, 3, 'hi']]
```

```
In [15]: l
```

```
Out[15]: [10, 20, 30, 40, 40, [1, 2, 3, 'hi']]
```

```
In [ ]: l.remove(40)
```

```
In [17]: l
```

```
Out[17]: [10, 20, 30, 40, 40, [1, 2, 3, 'hi']]
```

```
In [19]: l
```

```
Out[19]: [10, 20, 30, 40, 40, [1, 2, 3, 'hi']]
```

```
In [21]: l.remove(40)#remove the element
l
```

```
Out[21]: [10, 20, 30, 40, [1, 2, 3, 'hi']]
```

```
In [23]: l[4]
```

```
Out[23]: [1, 2, 3, 'hi']
```

```
In [25]: l
```

```
Out[25]: [10, 20, 30, 40, [1, 2, 3, 'hi']]
```

```
In [27]: l.pop()
```

```
Out[27]: [1, 2, 3, 'hi']
```

```
In [29]: l
```

```
Out[29]: [10, 20, 30, 40]
```

```
In [31]: l1
```

```
Out[31]: [10, 20, 30, 40, 40, 2.3, True, (1+2j), 50]
```

```
In [33]: l1.pop()
```

```
Out[33]: 50
```

```
In [35]: l1
```

```
Out[35]: [10, 20, 30, 40, 40, 2.3, True, (1+2j)]
```

```
In [37]: l1.pop()
```

```
Out[37]: (1+2j)
```

```
In [39]: l1
```

```
Out[39]: [10, 20, 30, 40, 40, 2.3, True]
```

```
In [41]: l1.pop(-1)
```

```
Out[41]: True
```

```
In [43]: l1
```

```
Out[43]: [10, 20, 30, 40, 40, 2.3]
```

```
In [47]: l1.pop(3)
```

```
Out[47]: 40
```

```
In [49]: l1
```

```
Out[49]: [10, 20, 30, 40, 2.3]
```

```
In [51]: print(l)
         print(l1)
```

```
[10, 20, 30, 40]  
[10, 20, 30, 40, 2.3]
```

```
In [53]: 1
```

```
Out[53]: [10, 20, 30, 40]
```

```
In [57]: 1.insert(35,3)  
1
```

```
Out[57]: [10, 20, 30, 40, 3]
```

```
In [59]: 1
```

```
Out[59]: [10, 20, 30, 40, 3]
```

```
In [61]: 1.insert(3,35)  
1
```

```
Out[61]: [10, 20, 30, 35, 40, 3]
```

```
In [63]: l1
```

```
Out[63]: [10, 20, 30, 40, 2.3]
```

```
In [65]: l1.insert(15,1)  
l1
```

```
Out[65]: [10, 20, 30, 40, 2.3, 1]
```

```
In [67]: l1.insert(1,15)  
l1
```

```
Out[67]: [10, 15, 20, 30, 40, 2.3, 1]
```

```
In [69]: l2=[]
```

```
In [71]: l2
```

```
Out[71]: []
```

```
In [73]: l2.extend(l1)
```

```
In [75]: l2
```

```
Out[75]: [10, 15, 20, 30, 40, 2.3, 1]
```

```
In [77]: 1
```

```
Out[77]: [10, 20, 30, 35, 40, 3]
```

```
In [79]: l1
```

```
Out[79]: [10, 15, 20, 30, 40, 2.3, 1]
```

```
In [81]: 1.extend(l1)
```

```
In [83]: 1
Out[83]: [10, 20, 30, 35, 40, 3, 10, 15, 20, 30, 40, 2.3, 1]

In [85]: print(l)
[10, 20, 30, 35, 40, 3, 10, 15, 20, 30, 40, 2.3, 1]

In [87]: print(l1)
[10, 15, 20, 30, 40, 2.3, 1]

In [89]: print(l2)
[10, 15, 20, 30, 40, 2.3, 1]

In [91]: l2.index(30)
Out[91]: 3

In [93]: l2
Out[93]: [10, 15, 20, 30, 40, 2.3, 1]

In [95]: 1
Out[95]: [10, 20, 30, 35, 40, 3, 10, 15, 20, 30, 40, 2.3, 1]

In [97]: l1
Out[97]: [10, 15, 20, 30, 40, 2.3, 1]

In [99]: l1.sort()

In [101...  l1
Out[101...  [1, 2.3, 10, 15, 20, 30, 40]

In [103...  l1.sort(reverse=True) #descending order
l1
Out[103...  [40, 30, 20, 15, 10, 2.3, 1]

In [105...  l3=[3,100,4]

In [107...  l3
Out[107...  [3, 100, 4]

In [109...  l3.sort(reverse=True)
l3
Out[109...  [100, 4, 3]

In [111...  l3.sort()

In [113...  l3
```

Out[113...] [3, 4, 100]

```
In [115...] 15=['z','m','n','b']  
15
```

Out[115...] ['z', 'm', 'n', 'b']

```
In [119...] 15.sort()  
15
```

Out[119...] ['b', 'm', 'n', 'z']

```
In [121...] 11
```

Out[121...] [40, 30, 20, 15, 10, 2.3, 1]

```
In [123...] 11.reverse()
```

```
In [125...] 11
```

Out[125...] [1, 2.3, 10, 15, 20, 30, 40]

```
In [127...] 1
```

Out[127...] [10, 20, 30, 35, 40, 3, 10, 15, 20, 30, 40, 2.3, 1]

```
In [129...] 1[::-1]
```

Out[129...] [1, 2.3, 40, 30, 20, 15, 10, 3, 40, 35, 30, 20, 10]

```
In [ ]:
```