In [1]:
```
l1=[]
```

In [2]:
```
l1=[10,2.3,True,1+2j,'hello',[1,2,3]]
l1
```

Out[2]:
```
[10, 2.3, True, (1+2j), 'hello', [1, 2, 3]]
```

In [3]:
```
l1.append(10)
```

In [4]:
```
l1
```

Out[4]:
```
[10, 2.3, True, (1+2j), 'hello', [1, 2, 3], 10]
```

In [5]:
```
l1.count(10)
```

Out[5]:
```
2
```

In [6]:
```
l1.count(2.3)
```

Out[6]:
```
1
```

In [7]:
```
l1
```

Out[7]:
```
[10, 2.3, True, (1+2j), 'hello', [1, 2, 3], 10]
```

In [8]:
```
l1.remove(1+2j)
```

In [9]:
```
l1
```

Out[9]:
```
[10, 2.3, True, 'hello', [1, 2, 3], 10]
```

In [11]:
```
l1.pop()
```

Out[11]:
```
10
```

In [12]:
```
l1
```

Out[12]:
```
[10, 2.3, True, 'hello', [1, 2, 3]]
```

In [13]:
```
l1.pop(3)
```

Out[13]:
```
'hello'
```

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

Out[14]:
```
[10, 2.3, True, [1, 2, 3]]
```

In [15]:
```
l1.remove(True)
```

In [16]:
```
l1
```

Out[16]: [10, 2.3, [1, 2, 3]]

pop()- remove the elements index wise by default the last element

remove()-removes the elements directly no index required

In [17]:
```
l1
```

Out[17]: [10, 2.3, [1, 2, 3]]

In [18]:
```
l1.pop(2)
```

Out[18]: [1, 2, 3]

In [19]:
```
l1
```

Out[19]: [10, 2.3]

In [20]:
```
l1.append([1,2,3])
```

In [21]:
```
l1.append(1+2j)
```

In [22]:
```
l1
```

Out[22]: [10, 2.3, [1, 2, 3], (1+2j)]

In [23]:
```
l1.append(True)
```

In [24]:
```
l1
```

Out[24]: [10, 2.3, [1, 2, 3], (1+2j), True]

In [25]:
```
l1.index(2.3)
```

Out[25]: 1

In [28]:
```
l1.insert(4,5)
```

In [29]:
```
l1
```

Out[29]: [10, 2.3, [1, 2, 3], (1+2j), 5, True]

In [33]:
```
l1.insert(5,2+4j)
```

In [34]:
```
l1
```

Out[34]:
```
[10, 2.3, [1, 2, 3], (1+2j), 5, (2+4j), True]
```

In [35]:
```
l = [10,2.3]
```

In [36]:
```
print(l1)
print(l)
```

```
[10, 2.3, [1, 2, 3], (1+2j), 5, (2+4j), True]
[10, 2.3]
```

In [37]:
```
l1.extend(l)
```

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

Out[38]:
```
[10, 2.3]
```

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

Out[39]:
```
[10, 2.3, [1, 2, 3], (1+2j), 5, (2+4j), True, 10, 2.3]
```

In [40]:
```
l1.reverse()
```

In [41]:
```
l1
```

Out[41]:
```
[2.3, 10, True, (2+4j), 5, (1+2j), [1, 2, 3], 2.3, 10]
```

In [42]:
```
l5=[300,2,34,9,100]
```

In [43]:
```
l5
```

Out[43]:
```
[300, 2, 34, 9, 100]
```

In [44]:
```
l5.sort()
```

In [45]:
```
l5
```

Out[45]:
```
[2, 9, 34, 100, 300]
```

In [47]:
```
l5.sort(reverse=False)
```

In [48]:
```
l5
```

Out[48]:
```
[2, 9, 34, 100, 300]
```

In [49]:
```
l5.sort(reverse=True)
```

In [50]:
```
l5
```

Out[50]:
```
[300, 100, 34, 9, 2]
```

tunning: 1)parameter tunning -- system given parameter

2)hyper parameter tunning -- user changes the sytem parameter is called hyper parameter tuning

3)fine tunning -- (finetunning-llm)

In [52]:
```
l1
```

Out[52]:
```
[2.3, 10, True, (2+4j), 5, (1+2j), [1, 2, 3], 2.3, 10]
```

In [53]:
```
l5
```

Out[53]:
```
[300, 100, 34, 9, 2]
```

In [56]:
```
l5[0] = 3000 #new table concept
```

In [57]:
```
l5
```

Out[57]:
```
[3000, 100, 34, 9, 2]
```

list is completed

In [ ]:
```

```