25 th class

In [2]:
```
l=[]
l
```

Out[2]: []

In [6]:
```
l.append(100)
l.append(7)
l.append(10)
l.append(70)
l.append(150)
l.append(105)
l.append(20)
```

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

Out[7]: [100, 100, 100, 100, 100, 100, 100, 100, 100, 100, 7, 10, 70, 150, 105, 20]

In [8]:
```
100 in l
```

Out[8]: True

In [9]:
```
1000 in l
```

Out[9]: False

In [10]:
```
l.remove(100)
```

In [11]:
```
l
```

Out[11]: [100, 100, 100, 100, 100, 100, 100, 100, 100, 7, 10, 70, 150, 105, 20]

In [12]:
```
l.clear()
```

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

Out[13]: []

In [14]:
```
l.append(100)
l.append(7)
l.append(45)
l.append(78)
l.append(21)
l.append(105)
```

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

Out[15]: [100, 7, 45, 78, 21, 105]

In [16]:
```
l.sort()
```

In [18]:
```
for i in enumerate(l):# this function gives the pairs containig the count
    print(i)
```

```
(0, 7)
(1, 21)
(2, 45)
(3, 78)
(4, 100)
(5, 105)
```

In [19]:
```
l.reverse()
```

In [20]:
```
l
```

Out[20]: [105, 100, 78, 45, 21, 7]

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

Out[21]: []

In [22]:
```
l2.append(45)
l2.append(89)
l2.append(356)
l2.append(54)
l2.append(100)
l2.append(452)
```

In [23]:
```
l2
```

Out[23]: [45, 89, 356, 54, 100, 452]

In [24]:
```
l2.sort()
l2
```

Out[24]: [45, 54, 89, 100, 356, 452]

In [25]:
```
l2.sort(reverse=True)# we did hyperparameter tunning
l2
# parameter tunning is done when we use reverse=False
```

Out[25]: [452, 356, 100, 89, 54, 45]

In [26]:
```
l2.reverse()
```

In [27]:
```
l2
```

Out[27]: [45, 54, 89, 100, 356, 452]

In [28]:
```
print(l)
print(l2)
```

```
[105, 100, 78, 45, 21, 7]
[45, 54, 89, 100, 356, 452]
```

In [29]:
```
l1=[1,2.3,'fsds',True]
l1
```

Out[29]: [1, 2.3, 'fsds', True]

In [30]:
```
l1.sort()
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In[30], line 1
----> 1 l1.sort()

TypeError: '<' not supported between instances of 'str' and 'float'
```

In [31]:
```
l1.reverse()
l1
```

Out[31]: [True, 'fsds', 2.3, 1]

In [32]:
```
l1.sort(reverse=True)
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In[32], line 1
----> 1 l1.sort(reverse=True)

TypeError: '<' not supported between instances of 'str' and 'float'
```

In [33]:
```
l3=['a','z','m','n']
l3
```

Out[33]: ['a', 'z', 'm', 'n']

In [34]:
```
l3.sort()
```

In [35]:
```
l3
```

Out[35]: ['a', 'm', 'n', 'z']

In [36]:
```
# sort on;y works for the list with same data type but not a list with mix datat
```

In [38]:
```
l3.reverse()
l3
```

Out[38]: ['a', 'm', 'n', 'z']

In [39]:
```
# all and any
l
```

Out[39]: [105, 100, 78, 45, 21, 7]

In [40]:
```
all(l)
```

Out[40]: True

In [41]:
```
any(l)
```

Out[41]: True

In [42]:
```
l.append(0)
```

In [43]:
```
l
```

Out[43]:
```
[105, 100, 78, 45, 21, 7, 0]
```

In [44]:
```
all(l)# if therer is a zero value in the list it will give false otherwise it gi
```

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

In [45]:
```
any(l)# it bydefault gives true
```

Out[45]:
```
True
```

Tuple

In [46]:
```
t=()
t
```

Out[46]:
```
()
```

In [47]:
```
type(t)
```

Out[47]:
```
tuple
```

In [48]:
```
t1=(10,20,30)
t1
```

Out[48]:
```
(10, 20, 30)
```

In [49]:
```
t1.append(10)
```

```
---------------------------------------------------------------------------
AttributeError                            Traceback (most recent call last)
Cell In[49], line 1
----> 1 t1.append(10)

AttributeError: 'tuple' object has no attribute 'append'
```

In [50]:
```
t1.count(10)
```

Out[50]:
```
1
```

In [51]:
```
t1.index(20)
```

Out[51]:
```
1
```

In [52]:
```
sbi=('alex',1234567,'ksajhdalk',45678)
sbi
```

Out[52]:
```
('alex', 1234567, 'ksajhdalk', 45678)
```

In [53]:
```
#tuple is immutable so we cannot change the data that we enter once and list is
```

In [54]:
```
for i in t1:
    print(i)
```

```
10
20
30
```

In [57]:
```
t2=t1*3
t2
```

Out[57]:
```
(10, 20, 30, 10, 20, 30, 10, 20, 30)
```

In [60]:
```
t2(2:6)
```

```
  Cell In[60], line 1
    t2(2:6)
       ^
SyntaxError: invalid syntax
```

In [61]:
```
t2[2:6]
```

Out[61]:
```
(30, 10, 20, 30)
```

In [62]:
```
t2.remove(10)
```

```
---------------------------------------------------------------------------
AttributeError                            Traceback (most recent call last)
Cell In[62], line 1
----> 1 t2.remove(10)

AttributeError: 'tuple' object has no attribute 'remove'
```

In [63]:
```
del t2
```

In [64]:
```
t2
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[64], line 1
----> 1 t2

NameError: name 't2' is not defined
```

In [65]:
```
del t1
```

In [66]:
```
t1
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[66], line 1
----> 1 t1

NameError: name 't1' is not defined
```

In [ ]: