In [25]:
```
# sort(): homeogeneous/similer possible & different type is type error:-
# syntax1:lstobj=short() is shorts the values in accending order
# syntax2:lstobj=short(reverse=False) is shorts the values in accending order
# syntax3:lstobj=short(reverse=True) is shorts the values in decending order
```

In [5]:
```
lst=[10,34,12,-6,0,22,67,3]
print(lst,type(lst),id(lst))
```

```
[10, 34, 12, -6, 0, 22, 67, 3] <class 'list'> 2416672510400
```

In [13]:
```
lst.sort()
print(lst,id(lst))
```

```
[-6, 0, 3, 10, 12, 22, 34, 67] 2416672510400
```

In [9]:
```
lst.reverse()
print(lst,id(lst))
```

```
[67, 34, 22, 12, 10, 3, 0, -6] 2416672510400
```

In [19]:
```
lst.sort(reverse=True)
print(lst,id(lst))
```

```
[67, 34, 22, 12, 10, 3, 0, -6] 2416672510400
```

In [27]:
```
lst.sort(reverse=False)
print(lst,id(lst))
```

```
[-6, 0, 3, 10, 12, 22, 34, 67] 2416672510400
```

In [29]:
```
# Exercise:2 Write a Python programm to sort the given data,"Guido van Rossam","Mah
```

In [31]:
```
lst=["Guido van Rossam","Mahaboob","Bandhana","Davi","Heena","David","Tara"]
lst.sort()
print(lst,type(lst),id(lst))
```

```
['Bandhana', 'Davi', 'David', 'Guido van Rossam', 'Heena', 'Mahaboob', 'Tara'] <clas
s 'list'> 2416726977856
```

In [33]:
```
lst.reverse()
print(lst,id(lst))
```

```
['Tara', 'Mahaboob', 'Heena', 'Guido van Rossam', 'David', 'Davi', 'Bandhana'] 24167
26977856
```

In [35]:
```
lst.sort(reverse=True)
print(lst,id(lst))
```

```
['Tara', 'Mahaboob', 'Heena', 'Guido van Rossam', 'David', 'Davi', 'Bandhana'] 24167
26977856
```

In [37]:
```
lst.sort(reverse=False)
print(lst,id(lst))
```

```
['Bandhana', 'Davi', 'David', 'Guido van Rossam', 'Heena', 'Mahaboob', 'Tara'] 24167
26977856
```

In [39]:
```
# Merge : This function is used for listobj2 to listobj1 & this function can merge
# syntax: lstobj1.extend(lstobj2)
# syntax: listobj1=listobj1+listobj2....listobj-n
```

In [75]:
```
lst1=[10,20,30]
lst2=["Tara","Mahaboob","Khan"]
print(lst1)
print(lst2)
```

```
[10, 20, 30]
['Tara', 'Mahaboob', 'Khan']
```

In [77]:
```
lst2.extend(lst1)
print(lst2)
```

```
['Tara', 'Mahaboob', 'Khan', 10, 20, 30]
```

In [79]:
```
lst3=["Hyderabad","Delhi","India"]
lst1.extend(lst2+lst3) # We using + operator for multipile list objects
print(lst1)
```

```
[10, 20, 30, 'Tara', 'Mahaboob', 'Khan', 10, 20, 30, 'Hyderabad', 'Delhi', 'India']
```

Nested or Inner List

In [82]:
```
lst=[100,"Mahaboob",[17,16,15],[78,67,80],"MRIIRS"]
print(lst,type(lst),id(lst))
```

```
[100, 'Mahaboob', [17, 16, 15], [78, 67, 80], 'MRIIRS'] <class 'list'> 2416726813632
```

In [84]:
```
for val in lst:
    print(val,"--->",type(val),"--->",type(lst))
```

```
100 ---> <class 'int'> ---> <class 'list'>
Mahaboob ---> <class 'str'> ---> <class 'list'>
[17, 16, 15] ---> <class 'list'> ---> <class 'list'>
[78, 67, 80] ---> <class 'list'> ---> <class 'list'>
MRIIRS ---> <class 'str'> ---> <class 'list'>
```

In [86]:
```
lst[2]
```

Out[86]: [17, 16, 15]

In [88]:
```
lst[3]
```

Out[88]: [78, 67, 80]

In [90]:
```
lst[-3]
```

Out[90]: [17, 16, 15]

In [92]:
```
lst[2][2]
```

Out[92]: 15

In [98]:
```
lst[2][2]=18 #replacing the index value
print(lst)
```

```
[100, 'Mahaboob', [17, 16, 18], [78, 67, 80], 'MRIIRS']
```

In [100…
```
lst[2].sort()
print(lst)
```

```
[100, 'Mahaboob', [16, 17, 18], [78, 67, 80], 'MRIIRS']
```

In [102…
```
lst[-2].sort(reverse=True)
print(lst)
```

```
[100, 'Mahaboob', [16, 17, 18], [80, 78, 67], 'MRIIRS']
```

In [104…
```
lst[-2].clear()
print(lst)
```

```
[100, 'Mahaboob', [16, 17, 18], [], 'MRIIRS']
```

In [108…
```
del lst[3]
print(lst)
```

```
[100, 'Mahaboob', [16, 17, 18], 'MRIIRS']
```

In [116…
```
lst.insert(-2,("Tara"))
print(lst)
```

```
[100, 'Mahaboob', 'Tara', [16, 17, 18], 'MRIIRS']
```

Tuple():

In [119…
```
x=(10,20,30,10,20,-10,50)
print(x,type(x),id(x))
```

```
(10, 20, 30, 10, 20, -10, 50) <class 'tuple'> 2416726894496
```

In [121…
```
y=(10,"Mahaboob",34.50,"Tara",2+3j,True)
print(y,type(y),id(y))
```

```
(10, 'Mahaboob', 34.5, 'Tara', (2+3j), True) <class 'tuple'> 2416726889312
```

In [128…
```
y[0:5 #slicing the data
```

Out[128…
```
(10, 'Mahaboob', 34.5, 'Tara', (2+3j))
```

In [130…
```
y[::-1] # reversing the data
```

Out[130…
```
(True, (2+3j), 'Tara', 34.5, 'Mahaboob', 10)
```

In [132…
```
x=("Tara")
print(x,type(x))
x=("Tara",)
print(x,type(x))
```

```
Tara <class 'str'>
('Tara',) <class 'tuple'>
```

In [ ]: