30-06-2020

- List remaining methods

In [2]:

```
print(dir(list()))
```

```
['__add__', '__class__', '__contains__', '__delattr__', '__delitem__', '__di
r__', '__doc__', '__eq__', '__format__', '__ge__', '__getattribute__', '__ge
titem__', '__gt__', '__hash__', '__iadd__', '__imul__', '__init__', '__init_
subclass__', '__iter__', '__le__', '__len__', '__lt__', '__mul__', '__ne__',
'__new__', '__reduce__', '__reduce_ex__', '__repr__', '__reversed__', '__rmu
l__', '__setattr__', '__setitem__', '__sizeof__', '__str__', '__subclasshook
__', 'append', 'clear', 'copy', 'count', 'extend', 'index', 'insert', 'pop',
'remove', 'reverse', 'sort']
```

In [33]:

```
p = [56,78,12,56,45,78,0,45,6]
print(p.index(12))
print(p)
p.insert(2,700)
print(p)
```

```
2
[56, 78, 12, 56, 45, 78, 0, 45, 6]
[56, 78, 700, 12, 56, 45, 78, 0, 45, 6]
```

In [10]:

```
print(p)
```

```
[56, 78, 12, 56, 78, 0, 45]
```

In [6]:

```
print(p)
p.pop()
print(p)
```

```
[56, 78, 700, 12, 56, 45, 78, 0, 45, 6]
[56, 78, 700, 12, 56, 45, 78, 0, 45]
```

In [8]:

```
print(p)
p.pop(2)
print(p)
```

```
[56, 78, 700, 12, 56, 45, 78, 0, 45]
[56, 78, 12, 56, 45, 78, 0, 45]
```

In [13]:

```
print(p)
p.remove(5)
print(p)
```

```
[78, 700, 12, 56, 45, 78, 0, 45, 6]

---------------------------------------------------------------------------
ValueError                                Traceback (most recent call last)
<ipython-input-13-f606b9003c15> in <module>
      1 print(p)
----> 2 p.remove(5)
      3 print(p)

ValueError: list.remove(x): x not in list
```

In [19]:

```
print(p)
p.reverse()
print(p)
```

```
[78, 700, 12, 56, 45, 78, 0, 45, 6]
[6, 45, 0, 78, 45, 56, 12, 700, 78]
```

In [22]:

```
print(p)
p.reverse()
print(p)
```

```
[78, 700, 12, 56, 45, 78, 0, 45, 6]
[6, 45, 0, 78, 45, 56, 12, 700, 78]
```

In [39]:

```
print(p)
p.sort(reverse=True)
print(p)
```

```
[0, 6, 12, 45, 45, 56, 56, 78, 78, 700]
[700, 78, 78, 56, 56, 45, 45, 12, 6, 0]
```

In [37]:

```
print(p)
p.sort()
print(p)
```

```
[0, 6, 12, 45, 45, 56, 56, 78, 78, 700]
[0, 6, 12, 45, 45, 56, 56, 78, 78, 700]
```

In [31]:

```
print(help(list.sort))
```

```
Help on method_descriptor:

sort(self, /, *, key=None, reverse=False)
    Stable sort *IN PLACE*.

None
```

In [41]:

```
l = [45,7,8,0,34]
l1 = [56,123,45,49,90]
l3 = []
l3.append(90)
print(l3)
```

```
[90]
```

In [42]:

```
l4 = []
l4.extend(89)
print(l4)
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
<ipython-input-42-6699804eeab0> in <module>
      1 l4 = []
----> 2 l4.extend(89)
      3 print(l4)

TypeError: 'int' object is not iterable
```

In [43]:

```
l5 = [90,67,567]
l3.append(l5)
print(l3)
```

```
[90, [90, 67, 567]]
```

In [44]:

```
l6 = [67,89,0,34,23]
l4.extend(l6)
print(l4)
```

```
[67, 89, 0, 34, 23]
```

In [45]:

```
lp = "rajesh"
l3.append(lp)
print(l3)
```

```
[90, [90, 67, 567], 'rajesh']
```

In [46]:

```
ln = "somu"
l4.extend(ln)
print(l4)
```

```
[67, 89, 0, 34, 23, 's', 'o', 'm', 'u']
```

In [47]:

```
lk = [90,67,45]
ps = lk*4
print(ps)
```

```
[90, 67, 45, 90, 67, 45, 90, 67, 45, 90, 67, 45]
```

In [48]:

```
ps = lk+ps
print(ps)
```

```
[90, 67, 45, 90, 67, 45, 90, 67, 45, 90, 67, 45, 90, 67, 45]
```

In [55]:

```
pr = [45,7,6,34,56]
ld = pr
print(ld)
print(pr)
pr.append(120)
print(ld)
print(pr)
ld.pop()
print(ld)
print(pr)
```

```
[45, 7, 6, 34, 56]
[45, 7, 6, 34, 56]
[45, 7, 6, 34, 56, 120]
[45, 7, 6, 34, 56, 120]
[45, 7, 6, 34, 56]
[45, 7, 6, 34, 56]
```

In [54]:

```
la = [56,89,123,45]
pe = la.copy()
print(la)
print(pe)
la.append(129)
print(la)
print(pe)
pe.pop()
print(la)
print(pe)
```

```
[56, 89, 123, 45]
[56, 89, 123, 45]
[56, 89, 123, 45, 129]
[56, 89, 123, 45]
[56, 89, 123, 45, 129]
[56, 89, 123]
```

Tuple:

- Tuple can be represented by () or tuple()
- Data type
- It can stores the data in ordered format
- Slicing can be done because index is placed in it
- It allows duplicate values in a tuple data type
- It allows all type of data elements
- It cant changes the values

In [61]:

```
rw = (45,56.89,'somu',False,'45')
print(rw,type(rw))
print(rw[2])
print(rw[1:])
print(rw[::-1])
```

```
(45, 56.89, 'somu', False, '45') <class 'tuple'>
somu
(56.89, 'somu', False, '45')
('45', False, 'somu', 56.89, 45)
```

In [62]:

```
print(rw)
```

```
(45, 56.89, 'somu', False, '45')
```

In [63]:

```
print(dir(tuple()))
```

```
['__add__', '__class__', '__contains__', '__delattr__', '__dir__', '__doc_
_', '__eq__', '__format__', '__ge__', '__getattribute__', '__getitem__', '__
getnewargs__', '__gt__', '__hash__', '__init__', '__init_subclass__', '__ite
r__', '__le__', '__len__', '__lt__', '__mul__', '__ne__', '__new__', '__redu
ce__', '__reduce_ex__', '__repr__', '__rmul__', '__setattr__', '__sizeof__',
'__str__', '__subclasshook__', 'count', 'index']
```

In [64]:

```
kl = (45,67,23,2,3,45,67)
print(kl)
```

```
(45, 67, 23, 2, 3, 45, 67)
```

In [67]:

```
print(kl.count(2))
```

```
1
```

In [70]:

```
print(kl.index(3))
```

```
4
```

In [ ]:

```

```