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 [26]:

```
lst1 =[2,7,'cse',9.0,'mech',8.5,13,17,'civil']
print(lst1)
```

```
[2, 7, 'cse', 9.0, 'mech', 8.5, 13, 17, 'civil']
```

In [3]:

```
# remove()
lst1.remove('civil')
```

In [21]:

```
print(lst1)
```

```
[17, 13, 'priya', 8.5, '98.7', '98.7', 'mech', 9.0, 'cse', 7]
```

In [25]:

```
lst1.remove(17)
lst1
```

In [5]:

```
#reverse()
lst1.reverse()
print(lst1)
```

```
[17, 13, 8.5, 'mech', 9.0, 'cse', 7, 2]
```

In [6]:

```
lst9 =[8,6,3,9,2,1]
lst9
```

Out[6]:

```
[8, 6, 3, 9, 2, 1]
```

In [7]:

```
#sort()
lst9.sort() #assending order
print(lst9)
```

```
[1, 2, 3, 6, 8, 9]
```

In [8]:

```
lst9.reverse() #desending order
print(lst9)
```

```
[9, 8, 6, 3, 2, 1]
```

In [9]:

```
#insert()
lst1.insert(2,'priya')
print(lst1)

```

```
[17, 13, 'priya', 8.5, 'mech', 9.0, 'cse', 7, 2]
```

In [11]:

```
lst1.insert(4,'98.7')
print(lst1)
```

```
[17, 13, 'priya', 8.5, '98.7', '98.7', 'mech', 9.0, 'cse', 7, 2]
```

In [13]:

```
lst9.insert(3,'harsha') #inserting the 3 position
print(lst9)
```

```
[9, 8, 6, 'harsha', 'harsha', 3, 2, 1]
```

In [28]:

```
#pop
lst9.pop() #deleting last item
print(lst9)
```

```
[9, 8, 6, 'harsha', 'harsha', 3]
```

In [29]:

```
#clear()
lst9.clear() # it clear the entire list
lst9
```

Out[29]:

```
[]
```

In [30]:

```
print(lst9)
```

```
[]
```

In [31]:

```
print(len(lst9))

```

```
0
```

In [32]:

```
lst1.pop(1)
print(lst1)
```

```
[2, 'cse', 9.0, 'mech', 8.5, 13, 17, 'civil']
```

In [36]:

```
lst =[12,9.5,'cse','ece',15,8,5.3]
nlst = []
slst =[]
flst = []
for item in lst: # item =12, item=9.5
    if(type(item) == int):
        nlst.append(item) #nlst =[12]
    elif(type(item) == float):
        flst.append(item) #flst =[9.5]
    else:
        slst.append(item) #slst ='cse'
print(nlst,'\n',slst,'\n',flst)
```

```
[12, 15, 8]
 ['cse', 'ece']
 [9.5, 5.3]
```

In [37]:

```
type(9.5)
```

Out[37]:

```
float
```

tuple

- a tuple is a collection which is ordered and immutable.
- In python are written with round brackets.
- iteration in tuple is faster than list

In [38]:

```
t =('cse','mech','ece')
print(t)
```

```
('cse', 'mech', 'ece')
```

In [39]:

```
t.index('mech')
```

Out[39]:

```
1
```

In [40]:

```
print(len(t))
```

```
3
```

In [43]:

```
tup = (1,2,3,(4,5,7,(8,9)),10,11)
print(tup)

```

```
(1, 2, 3, (4, 5, 7, (8, 9)), 10, 11)
```

In [44]:

```
print(len(tup))
```

```
6
```

In [45]:

```
tup[3]
```

Out[45]:

```
(4, 5, 7, (8, 9))
```

In [48]:

```
tup[3][4]
```

```
---------------------------------------------------------------------------
IndexError                                Traceback (most recent call last)
<ipython-input-48-1336a078a9f4> in <module>
----> 1 tup[3][4]

IndexError: tuple index out of range
```

In [49]:

```
1 tup[3][4][1]
```

```
---------------------------------------------------------------------------
IndexError                                Traceback (most recent call last)
<ipython-input-49-5bab7c938730> in <module>
----> 1 tup[3][4][1]

IndexError: tuple index out of range
```

In [50]:

```
1 res1 = tup[3]
2 res1.count(5)
```

Out[50]:

```
1
```

In [ ]:

```
1
```