Dictionaries

In [1]:
```
list=[10,20,30]
list[0]
```

Out[1]:
```
10
```

In [3]:
```
dict1={}
dict1={'key':'value1','key2':'value2'}
dict2={1:10,2:20,3:30}
dict2[1]
dict1['key']
```

Out[3]:
```
'value1'
```

Dictionary Methods

get()

In [4]:
```
dict1={'k1':100,'k2':200,'k3':300}
dict2=dict1.get('k3')
dict2
```

Out[4]:
```
300
```

keys(),values() and items()

In [5]:
```
dict1.keys()
```

Out[5]:
```
dict_keys(['k1', 'k2', 'k3'])
```

In [7]:
```
dict1.values()
```

Out[7]:
```
dict_values([100, 200, 300])
```

In [8]:
```
dict1.items()
```

Out[8]:
```
dict_items([('k1', 100), ('k2', 200), ('k3', 300)])
```

update()

setdefault()

copy()

In [9]:
```
student={'name':'Sravani','Pin':123,'branch':'cse','age':18}
student.update({'age':19})
student
```

Out[9]:
```
{'name': 'Sravani', 'Pin': 123, 'branch': 'cse', 'age': 19}
```

In [11]:
```
student.update({'cellNo.':123455667})
student
```

Out[11]:
```
{'name': 'Sravani',
 'Pin': 123,
 'branch': 'cse',
 'age': 19,
 'cellNo.': 123455667}
```

In [14]:
```
student.setdefault('age',20)
student
```

Out[14]:
```
{'name': 'Sravani',
 'Pin': 123,
 'branch': 'cse',
 'age': 19,
 'cellNo.': 123455667}
```

In [17]:
```
student2=student.copy()
student2
```

Out[17]:
```
{'name': 'Sravani',
 'Pin': 123,
 'branch': 'cse',
 'age': 19,
 'cellNo.': 123455667}
```

-popitems()

-pop()

clear()

In [18]:
```
d={1:'a',2:'b',3:'c'}
d.popitem()
```

Out[18]:
```
(3, 'c')
```

In [19]:
```
d.pop(1)
```

Out[19]:
```
'a'
```

In [20]:
```
d
```

Out[20]:
```
{2: 'b'}
```

In [21]:
```
d.clear()
```

In [22]:
```
d
```

Out[22]:
```
{}
```

In [25]:
```
d1={'name1':'bhargavi','name2':'sravani','name3':'Durga'}
d2={'pin1':123,'pin2':234,'pin3':567}
d1.update(d2)
d1
```

Out[25]:
```
{'name1': 'bhargavi',
 'name2': 'sravani',
 'name3': 'Durga',
 'pin1': 123,
 'pin2': 234,
 'pin3': 567}
```

In [28]:
```
d1={'name1':'bhargavi','name2':'sravani','name3':'Durga'}
d2={'pin1':123,'pin2':234,'pin3':567}
d3={'name4':'bharu','name5':'sravs','name6':'Durga bhavani'}
d4={'age1':19,'age2':20,'age3':23}
d5={}
for i in (d1,d2,d3,d4):
    d5.update(i)
d5
```

Out[28]:
```
{'name1': 'bhargavi',
 'name2': 'sravani',
 'name3': 'Durga',
 'pin1': 123,
 'pin2': 234,
 'pin3': 567,
 'name4': 'bharu',
 'name5': 'sravs',
 'name6': 'Durga bhavani',
 'age1': 19,
 'age2': 20,
 'age3': 23}
```

Python program to build a contacts application

In [32]:
```
contacts={}
def addContacts(name,phone):
    if name not in contacts:
        contacts[name]=phone
        print('Contact added')
    else:
        print('Contact already exist')
addContacts('Sravani',123434566)
addContacts('gopi',1233434566)
addContacts('Sravs',12343490566)
print(contacts)
```

```
Contact added
Contact added
Contact added
{'Sravani': 123434566, 'gopi': 1233434566, 'Sravs': 12343490566}
```

In [34]:
```
if 'Sravani' in contacts.keys():
    print('Contact exists')
else:
    print('Contact not exists')
```

```
Contact exists
```

In [57]:
```
students={1:['Anupallavi','cse'],2:['Madhuri','ece'],3:['Mohini','Civil']}
#Output:1:['Anupallavi','cse']
#2:['Madhuri','ece']
#3:['Mohini','Civil']
for keys,values in students.items():
    print(keys,':',values)
```

```
1 : ['Anupallavi', 'cse']
2 : ['Madhuri', 'ece']
3 : ['Mohini', 'Civil']
```

In [ ]:
```
d={}
for i in range(11):
    d[i]=input('')
```

In [60]:
```
print(d)
```

```
{0: 'sra', 1: '23', 2: '4', 3: '345', 4: '2435', 5: '12', 6: '12', 7: '145',
8: '156', 9: '115', 10: '156'}
```

In [76]:
```
d1={'n1':100,'n2':200,'n3':700}
s=sum(d1.values())
size=len(d1)
avg=s//size
print(avg)
print(s)
```

```
333
1000
```

In [4]:
```
d={'n1':100,'n2':200,'n3':700,'n4':-3}
m=1
for values in d.values():
    m=m*values
print(m)
```

```
-42000000
```

In [ ]:
```

```