In [1]:
```
a="helloworld"
```

In [2]:
```
a
```

Out[2]:
```
'helloworld'
```

In [3]:
```
a='helloworld'
```

In [4]:
```
a
```

Out[4]:
```
'helloworld'
```

In [5]:
```
print(a)
```

```
helloworld
```

In [6]:
```
a=2
```

In [7]:
```
b=12
```

In [8]:
```
c=a+b
```

In [9]:
```
c
```

Out[9]:
```
14
```

In [10]:
```
print(c)
```

```
14
```

In [11]:
```
c=1,2,3
```

In [12]:
```
c
```

Out[12]:
```
(1, 2, 3)
```

In [13]:
```
c[0]
```

Out[13]:
```
1
```

In [14]:
```
c[12]
```

```
---------------------------------------------------------------------------
IndexError                                Traceback (most recent call last)
<ipython-input-14-de2b393c7d28> in <module>()
----> 1 c[12]

IndexError: tuple index out of range
```

In [15]:
```
c[-1]
```

Out[15]:
```
3
```

In [16]:
```
len(c)
```

Out[16]:
```
3
```

In [17]:
```
for i in a:
    print(a+a)
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
<ipython-input-17-104ed4a36c61> in <module>()
----> 1 for i in a:
      2     print(a+a)

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

In [19]:
```
a=(1,2,"ram",1.1)
```

In [22]:
```
for i in a:
    print(a+a)
```

```
(1, 2, 'ram', 1.1, 1, 2, 'ram', 1.1)
(1, 2, 'ram', 1.1, 1, 2, 'ram', 1.1)
(1, 2, 'ram', 1.1, 1, 2, 'ram', 1.1)
(1, 2, 'ram', 1.1, 1, 2, 'ram', 1.1)
```

In [29]:
```
a=[ "Tarun","Namrata","Nikita" ]
a
```

Out[29]:
```
['Tarun', 'Namrata', 'Nikita']
```

In [27]:
```
a[2]="Rashmi"
```

In [28]:
```
a
```

Out[28]:
```
['Tarun', 'Namrata', 'Rashmi']
```

2D

Two Dimentional Array

2D Array

In [37]:
```
a= [ 10,4,5 ]
```

In [38]:
```
b= [ 24,3,6 ]
```

In [41]:
```
ab
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
<ipython-input-41-5277cbb45a15> in <module>()
----> 1 ab

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

In [42]:
```
import numpy as np
```

In [43]:
```
import pandas as pd
```

In [44]:
```
import seaborn as sns
```

In [45]:
```
testfile=pd.read_excel("C:/Users/RAM1/Desktop/TYCO.xlsx")
```

In [46]:
```
testfile
```

Out[46]:

	rollno	Name	Java unit -II
0	1.0	ROHAN RAMESH BAPAT	25
1	2.0	SHETH AKSHAY VIPIN	16
2	3.0	TANPURE SANTOSH SOPAN	6
3	4.0	DALAL NIRANJAN MOHAN	11
4	5.0	GAIKWAD SNEHA ASHOK	20
5	6.0	NEVE RONIT RAJESH	23
6	7.0	PADEKAR NAMITA JANARDAN	21
7	8.0	SOMASE SATISH RAJABHAU	6
8	9.0	DANGRE GAURI SANDEEP	25
9	10.0	BHAREKAR CHANCHAL SURESH	25
10	11.0	DAS ASHUTOSH DEBRANJAN	22
11	12.0	DESHMUKH REWA RAJENDRA	25
12	13.0	DIWAN CHINMAY DHANANJAY	20
13	14.0	KHATAVKAR TRUPTI NANDKUMAR	25
14	15.0	JADHAV MEENAL SAMBHAJI	25
15	16.0	BADE PRAMOD RAJABHAU	23
16	17.0	KOLKAR ABHISHEK KESHAV	24
17	18.0	SHAH JAINAM RAJESH	24
18	19.0	MOGHE NAMRATA PURUSHOTTAM	24
19	20.0	LOKHANDE PRUTHVI PARAG	23
20	21.0	SHUKLA YASH NITIN	24
21	22.0	PISAL DHANASHREE PRAKASH	24
22	23.0	KHILARE NIKHIL TUKARAM	24
23	24.0	DHUMAL AISHWARYA AMOL	25
24	25.0	PAWAR AKASH SURESH	22
25	26.0	DIGE SNEHAL SANJAY	25
26	27.0	KHISTE ADITI CHANDRASHEKHAR	24
27	28.0	KURAMBHATTI MANGESH SANJAY	25
28	29.0	RASAL ABHISHEK SUNIL	25
29	30.0	KUMBHAR SOURABH SHIVAPUTRA	25
...	...	...	...
63	64.0	SONAWANE APURV VASANT	22
64	65.0	CHAUDHARI HARSHAL	25
65	66.0	DESHMUKH SAHIL AJAY	23

	rollno	Name	Java unit -II
66	67.0	BIDKAR ANIKET AVINASH	24
67	68.0	PATEL DHRUV ANAND	24
68	69.0	PREETI SUNIL SAKAV	25
69	70.0	GANDHI RIYA SACHIN	25
70	71.0	SAI VIKAS PATIL	25
71	72.0	JAISWAL AKANSH PRAMODKUMAR	24
72	73.0	MOHAK GANGWANI	10
73	74.0	GUNDI CHAITANYA UMESH	21
74	75.0	UNDE TEJAS DIPAK	20
75	76.0	CHACHE PRATHMESH M	14
76	77.0	SANCHETI DEVENDRA JEEVAN	24
77	78.0	OZA AKSHAY RAJENDRA	23
78	79.0	ADEKAR VIDYA SURESH	23
79	80.0	MORE ASHISH ANANT	24
80	81.0	VEER SHUBHAM DATTATRAYA	22
81	82.0	SALUNKHE YASH PRASHANT	22
82	83.0	MORE PRANALI PRAKASH	23
83	84.0	CHOUGULE NAYAN SAMPATRAO	20
84	85.0	SHAH ANUGA BHARAT	25
85	86.0	SHINDE NIKITA ARUN	25
86	87.0	JAMBHULKAR SANKET GULABRAV	18
87	NaN	number of present student	87
88	NaN	number of absent student	0
89	NaN	number of student above 80%	71
90	NaN	number of student above 60%	10
91	NaN	number of student above 40 -60%	4
92	NaN	number of student below 40%	2

93 rows × 3 columns

In [47]:
```
testfile[["city"]]
```

```
---------------------------------------------------------------------------
KeyError                                  Traceback (most recent call last)
<ipython-input-47-a33bf9773250> in <module>()
----> 1 testfile[["city"]]

~\Anaconda3\lib\site-packages\pandas\core\frame.py in __getitem__(self, key)
   2131         if isinstance(key, (Series, np.ndarray, Index, list)):
   2132             # either boolean or fancy integer index
-> 2133             return self._getitem_array(key)
   2134         elif isinstance(key, DataFrame):
   2135             return self._getitem_frame(key)

~\Anaconda3\lib\site-packages\pandas\core\frame.py in _getitem_array(self, key)
   2175             return self._take(indexer, axis=0, convert=False)
   2176         else:
-> 2177             indexer = self.loc._convert_to_indexer(key, axis=1)
   2178             return self._take(indexer, axis=1, convert=True)
   2179

~\Anaconda3\lib\site-packages\pandas\core\indexing.py in _convert_to_indexer(se
lf, obj, axis, is_setter)
   1267                 if mask.any():
   1268                     raise KeyError('{mask} not in index'
-> 1269                                    .format(mask=objarr[mask]))
   1270
   1271                 return _values_from_object(indexer)

KeyError: "['city'] not in index"
```

In [48]:
```
testfile
```

Out[48]:

	rollno	Name	Java unit -II
0	1.0	ROHAN RAMESH BAPAT	25
1	2.0	SHETH AKSHAY VIPIN	16
2	3.0	TANPURE SANTOSH SOPAN	6
3	4.0	DALAL NIRANJAN MOHAN	11
4	5.0	GAIKWAD SNEHA ASHOK	20
5	6.0	NEVE RONIT RAJESH	23
6	7.0	PADEKAR NAMITA JANARDAN	21
7	8.0	SOMASE SATISH RAJABHAU	6
8	9.0	DANGRE GAURI SANDEEP	25
9	10.0	BHAREKAR CHANCHAL SURESH	25
10	11.0	DAS ASHUTOSH DEBRANJAN	22
11	12.0	DESHMUKH REWA RAJENDRA	25
12	13.0	DIWAN CHINMAY DHANANJAY	20
13	14.0	KHATAVKAR TRUPTI NANDKUMAR	25
14	15.0	JADHAV MEENAL SAMBHAJI	25
15	16.0	BADE PRAMOD RAJABHAU	23
16	17.0	KOLKAR ABHISHEK KESHAV	24
17	18.0	SHAH JAINAM RAJESH	24
18	19.0	MOGHE NAMRATA PURUSHOTTAM	24
19	20.0	LOKHANDE PRUTHVI PARAG	23
20	21.0	SHUKLA YASH NITIN	24
21	22.0	PISAL DHANASHREE PRAKASH	24
22	23.0	KHILARE NIKHIL TUKARAM	24
23	24.0	DHUMAL AISHWARYA AMOL	25
24	25.0	PAWAR AKASH SURESH	22
25	26.0	DIGE SNEHAL SANJAY	25
26	27.0	KHISTE ADITI CHANDRASHEKHAR	24
27	28.0	KURAMBHATTI MANGESH SANJAY	25
28	29.0	RASAL ABHISHEK SUNIL	25
29	30.0	KUMBHAR SOURABH SHIVAPUTRA	25
...	...	...	...
63	64.0	SONAWANE APURV VASANT	22
64	65.0	CHAUDHARI HARSHAL	25
65	66.0	DESHMUKH SAHIL AJAY	23

	rollno	Name	Java unit -II
66	67.0	BIDKAR ANIKET AVINASH	24
67	68.0	PATEL DHRUV ANAND	24
68	69.0	PREETI SUNIL SAKAV	25
69	70.0	GANDHI RIYA SACHIN	25
70	71.0	SAI VIKAS PATIL	25
71	72.0	JAISWAL AKANSH PRAMODKUMAR	24
72	73.0	MOHAK GANGWANI	10
73	74.0	GUNDI CHAITANYA UMESH	21
74	75.0	UNDE TEJAS DIPAK	20
75	76.0	CHACHE PRATHMESH M	14
76	77.0	SANCHETI DEVENDRA JEEVAN	24
77	78.0	OZA AKSHAY RAJENDRA	23
78	79.0	ADEKAR VIDYA SURESH	23
79	80.0	MORE ASHISH ANANT	24
80	81.0	VEER SHUBHAM DATTATRAYA	22
81	82.0	SALUNKHE YASH PRASHANT	22
82	83.0	MORE PRANALI PRAKASH	23
83	84.0	CHOUGULE NAYAN SAMPATRAO	20
84	85.0	SHAH ANUGA BHARAT	25
85	86.0	SHINDE NIKITA ARUN	25
86	87.0	JAMBHULKAR SANKET GULABRAV	18
87	NaN	number of present student	87
88	NaN	number of absent student	0
89	NaN	number of student above 80%	71
90	NaN	number of student above 60%	10
91	NaN	number of student above 40 -60%	4
92	NaN	number of student below 40%	2

93 rows × 3 columns

In [50]:
```
testfile[["orderdate","item"]]
```

```
---------------------------------------------------------------------------
KeyError                                  Traceback (most recent call last)
<ipython-input-50-710fcce8ae93> in <module>()
----> 1 testfile[["orderdate","item"]]

~\Anaconda3\lib\site-packages\pandas\core\frame.py in __getitem__(self, key)
   2131         if isinstance(key, (Series, np.ndarray, Index, list)):
   2132             # either boolean or fancy integer index
-> 2133             return self._getitem_array(key)
   2134         elif isinstance(key, DataFrame):
   2135             return self._getitem_frame(key)

~\Anaconda3\lib\site-packages\pandas\core\frame.py in _getitem_array(self, key)
   2175             return self._take(indexer, axis=0, convert=False)
   2176         else:
-> 2177             indexer = self.loc._convert_to_indexer(key, axis=1)
   2178             return self._take(indexer, axis=1, convert=True)
   2179

~\Anaconda3\lib\site-packages\pandas\core\indexing.py in _convert_to_indexer(se
lf, obj, axis, is_setter)
   1267                 if mask.any():
   1268                     raise KeyError('{mask} not in index'
-> 1269                                    .format(mask=objarr[mask]))
   1270
   1271                 return _values_from_object(indexer)

KeyError: "['orderdate' 'item'] not in index"
```

testfile.iloc[1]

In [52]:
```
testfile.iloc[[1]]
```

Out[52]:

	rollno	Name	Java unit -II
1	2.0	SHETH AKSHAY VIPIN	16

In [53]:
```
testfile.iloc[[0:3]]
```

```
  File "<ipython-input-53-9464a6c6ba23>", line 1
    testfile.iloc[[0:3]]
                   ^
SyntaxError: invalid syntax
```

In [54]:
```
testfile.iloc[0:3]
```

Out[54]:

	rollno	Name	Java unit -II
0	1.0	ROHAN RAMESH BAPAT	25
1	2.0	SHETH AKSHAY VIPIN	16
2	3.0	TANPURE SANTOSH SOPAN	6

In [58]:
```
testfile.iloc[0:5,0:2]
```

Out[58]:

	rollno	Name
0	1.0	ROHAN RAMESH BAPAT
1	2.0	SHETH AKSHAY VIPIN
2	3.0	TANPURE SANTOSH SOPAN
3	4.0	DALAL NIRANJAN MOHAN
4	5.0	GAIKWAD SNEHA ASHOK

In [60]:
```
testfile.iloc[:,2]
```

Out[60]:
```
0     25
1     16
2      6
3     11
4     20
5     23
6     21
7      6
8     25
9     25
10    22
11    25
12    20
13    25
14    25
15    23
16    24
17    24
18    24
19    23
20    24
21    24
22    24
23    25
24    22
25    25
26    24
27    25
28    25
29    25
      ..
63    22
64    25
65    23
66    24
67    24
68    25
69    25
70    25
71    24
72    10
73    21
74    20
75    14
76    24
77    23
78    23
79    24
80    22
81    22
82    23
83    20
84    25
85    25
86    18
```

```
87    87
88     0
89    71
90    10
91     4
92     2
Name: Java unit -II, Length: 93, dtype: int64
```

In [64]:
```
testfile.iloc[0:6,2]
```

Out[64]:
```
0    25
1    16
2     6
3    11
4    20
5    23
Name: Java unit -II, dtype: int64
```

In [65]:
```
testfile[0:2]
```

Out[65]:

	rollno	Name	Java unit -II
0	1.0	ROHAN RAMESH BAPAT	25
1	2.0	SHETH AKSHAY VIPIN	16

In [69]:
```
testfile.iloc[0:6, [0,2] ]
```

Out[69]:

	rollno	Java unit -II
0	1.0	25
1	2.0	16
2	3.0	6
3	4.0	11
4	5.0	20
5	6.0	23

In [71]:
```
testfile.iloc[0:6 ,[ 1,3] ]
```

```
---------------------------------------------------------------------------
IndexError                                Traceback (most recent call last)
<ipython-input-71-b17eae5895e3> in <module>()
----> 1 testfile.iloc[0:6 ,[ 1,3] ]

~\Anaconda3\lib\site-packages\pandas\core\indexing.py in __getitem__(self, key)
   1365             except (KeyError, IndexError):
   1366                 pass
-> 1367             return self._getitem_tuple(key)
   1368         else:
   1369             # we by definition only have the 0th axis

~\Anaconda3\lib\site-packages\pandas\core\indexing.py in _getitem_tuple(self, t
up)
   1735     def _getitem_tuple(self, tup):
   1736
-> 1737         self._has_valid_tuple(tup)
   1738         try:
   1739             return self._getitem_lowerdim(tup)

~\Anaconda3\lib\site-packages\pandas\core\indexing.py in _has_valid_tuple(self,
key)
    202             if i >= self.obj.ndim:
    203                 raise IndexingError('Too many indexers')
--> 204             if not self._has_valid_type(k, i):
    205                 raise ValueError("Location based indexing can only have
"
    206                                  "[{types}] types"

~\Anaconda3\lib\site-packages\pandas\core\indexing.py in _has_valid_type(self,
 key, axis)
   1672             return self._is_valid_integer(key, axis)
   1673         elif is_list_like_indexer(key):
-> 1674             return self._is_valid_list_like(key, axis)
   1675         return False
   1676

~\Anaconda3\lib\site-packages\pandas\core\indexing.py in _is_valid_list_like(se
lf, key, axis)
   1729         if (hasattr(arr, '__len__') and len(arr) and
   1730                 (arr.max() >= l or arr.min() < -l)):
-> 1731             raise IndexError("positional indexers are out-of-bounds")
   1732
   1733         return True

IndexError: positional indexers are out-of-bounds
```

In [ ]:
```

```

In [72]:
```
testfile.iloc[[0,2],]
```

Out[72]:

	rollno	Name	Java unit -II
0	1.0	ROHAN RAMESH BAPAT	25
2	3.0	TANPURE SANTOSH SOPAN	6

In [76]:
```
testfile.iloc[[0,2],[3,6]]
```

```
---------------------------------------------------------------------------
IndexError                                Traceback (most recent call last)
<ipython-input-76-b1e52135a0e4> in <module>()
----> 1 testfile.iloc[[0,2],[3,6]]

~\Anaconda3\lib\site-packages\pandas\core\indexing.py in __getitem__(self, key)
   1365                 except (KeyError, IndexError):
   1366                     pass
-> 1367                 return self._getitem_tuple(key)
   1368             else:
   1369                 # we by definition only have the 0th axis

~\Anaconda3\lib\site-packages\pandas\core\indexing.py in _getitem_tuple(self, t
up)
   1735     def _getitem_tuple(self, tup):
   1736
-> 1737         self._has_valid_tuple(tup)
   1738         try:
   1739             return self._getitem_lowerdim(tup)

~\Anaconda3\lib\site-packages\pandas\core\indexing.py in _has_valid_tuple(self,
key)
    202                 if i >= self.obj.ndim:
    203                     raise IndexingError('Too many indexers')
--> 204                 if not self._has_valid_type(k, i):
    205                     raise ValueError("Location based indexing can only have
"
    206                                      "[{types}] types"

~\Anaconda3\lib\site-packages\pandas\core\indexing.py in _has_valid_type(self,
 key, axis)
   1672                 return self._is_valid_integer(key, axis)
   1673             elif is_list_like_indexer(key):
-> 1674                 return self._is_valid_list_like(key, axis)
   1675             return False
   1676

~\Anaconda3\lib\site-packages\pandas\core\indexing.py in _is_valid_list_like(se
lf, key, axis)
   1729             if (hasattr(arr, '__len__') and len(arr) and
   1730                     (arr.max() >= l or arr.min() < -l)):
-> 1731                 raise IndexError("positional indexers are out-of-bounds")
   1732
   1733             return True

IndexError: positional indexers are out-of-bounds
```

In [ ]:
```

```

In [77]:
```
testfile
```

Out[77]:

	rollno	Name	Java unit -II
0	1.0	ROHAN RAMESH BAPAT	25
1	2.0	SHETH AKSHAY VIPIN	16
2	3.0	TANPURE SANTOSH SOPAN	6
3	4.0	DALAL NIRANJAN MOHAN	11
4	5.0	GAIKWAD SNEHA ASHOK	20
5	6.0	NEVE RONIT RAJESH	23
6	7.0	PADEKAR NAMITA JANARDAN	21
7	8.0	SOMASE SATISH RAJABHAU	6
8	9.0	DANGRE GAURI SANDEEP	25
9	10.0	BHAREKAR CHANCHAL SURESH	25
10	11.0	DAS ASHUTOSH DEBRANJAN	22
11	12.0	DESHMUKH REWA RAJENDRA	25
12	13.0	DIWAN CHINMAY DHANANJAY	20
13	14.0	KHATAVKAR TRUPTI NANDKUMAR	25
14	15.0	JADHAV MEENAL SAMBHAJI	25
15	16.0	BADE PRAMOD RAJABHAU	23
16	17.0	KOLKAR ABHISHEK KESHAV	24
17	18.0	SHAH JAINAM RAJESH	24
18	19.0	MOGHE NAMRATA PURUSHOTTAM	24
19	20.0	LOKHANDE PRUTHVI PARAG	23
20	21.0	SHUKLA YASH NITIN	24
21	22.0	PISAL DHANASHREE PRAKASH	24
22	23.0	KHILARE NIKHIL TUKARAM	24
23	24.0	DHUMAL AISHWARYA AMOL	25
24	25.0	PAWAR AKASH SURESH	22
25	26.0	DIGE SNEHAL SANJAY	25
26	27.0	KHISTE ADITI CHANDRASHEKHAR	24
27	28.0	KURAMBHATTI MANGESH SANJAY	25
28	29.0	RASAL ABHISHEK SUNIL	25
29	30.0	KUMBHAR SOURABH SHIVAPUTRA	25
...	...	...	...
63	64.0	SONAWANE APURV VASANT	22
64	65.0	CHAUDHARI HARSHAL	25

	rollno	Name	Java unit -II
65	66.0	DESHMUKH SAHIL AJAY	23
66	67.0	BIDKAR ANIKET AVINASH	24
67	68.0	PATEL DHRUV ANAND	24
68	69.0	PREETI SUNIL SAKAV	25
69	70.0	GANDHI RIYA SACHIN	25
70	71.0	SAI VIKAS PATIL	25
71	72.0	JAISWAL AKANSH PRAMODKUMAR	24
72	73.0	MOHAK GANGWANI	10
73	74.0	GUNDI CHAITANYA UMESH	21
74	75.0	UNDE TEJAS DIPAK	20
75	76.0	CHACHE PRATHMESH M	14
76	77.0	SANCHETI DEVENDRA JEEVAN	24
77	78.0	OZA AKSHAY RAJENDRA	23
78	79.0	ADEKAR VIDYA SURESH	23
79	80.0	MORE ASHISH ANANT	24
80	81.0	VEER SHUBHAM DATTATRAYA	22
81	82.0	SALUNKHE YASH PRASHANT	22
82	83.0	MORE PRANALI PRAKASH	23
83	84.0	CHOUGULE NAYAN SAMPATRAO	20
84	85.0	SHAH ANUGA BHARAT	25
85	86.0	SHINDE NIKITA ARUN	25
86	87.0	JAMBHULKAR SANKET GULABRAV	18
87	NaN	number of present student	87
88	NaN	number of absent student	0
89	NaN	number of student above 80%	71
90	NaN	number of student above 60%	10
91	NaN	number of student above 40 -60%	4
92	NaN	number of student below 40%	2

93 rows × 3 columns

In [80]:
```
testfile.iloc[0:10,0:3]
```

Out[80]:

	rollno	Name	Java unit -II
0	1.0	ROHAN RAMESH BAPAT	25
1	2.0	SHETH AKSHAY VIPIN	16
2	3.0	TANPURE SANTOSH SOPAN	6
3	4.0	DALAL NIRANJAN MOHAN	11
4	5.0	GAIKWAD SNEHA ASHOK	20
5	6.0	NEVE RONIT RAJESH	23
6	7.0	PADEKAR NAMITA JANARDAN	21
7	8.0	SOMASE SATISH RAJABHAU	6
8	9.0	DANGRE GAURI SANDEEP	25
9	10.0	BHAREKAR CHANCHAL SURESH	25

In [88]:
```
testfile.iloc[[0,3],[1,2]]
```

Out[88]:

	Name	Java unit -II
0	ROHAN RAMESH BAPAT	25
3	DALAL NIRANJAN MOHAN	11

In [90]:
```
mydict={"Tarun":"IT",
        "Kirti":"Finance",
       "Namrata":"IT"}
```

mydict

In [91]:
```
mydict
```

Out[91]:
```
{'Kirti': 'Finance', 'Namrata': 'IT', 'Tarun': 'IT'}
```

In [92]:
```
print(mydict)
```

```
{'Tarun': 'IT', 'Kirti': 'Finance', 'Namrata': 'IT'}
```

In [93]:
```
mydict["Namrata"]
```

Out[93]:
```
'IT'
```

In [97]:
```
mydict["Kirti"]
```

Out[97]:
```
'Finance'
```

In [103]:
```
mydict={"Tarun":["IT",30],
        "Kirti":["Finance",26],
       "Namrata":["IT",21]}
```

In [104]:
```
mydict
```

Out[104]:
```
{'Kirti': ['Finance', 26], 'Namrata': ['IT', 21], 'Tarun': ['IT', 30]}
```

In [105]:
```
print(mydict)
```

```
{'Tarun': ['IT', 30], 'Kirti': ['Finance', 26], 'Namrata': ['IT', 21]}
```

In [106]:
```
mydict["Kirti"]
```

Out[106]:
```
['Finance', 26]
```

In [107]:
```
mydict["Kirti"][1]
```

Out[107]:
```
26
```

In [109]:
```
mydict={"Tarun":["IT",30],
        "Kirti":["Finance",26],
       "Namrata":["IT",21],
       "Tarun":["Finance",35]}
```

In [110]:
```
print(mydict)
```

```
{'Tarun': ['Finance', 35], 'Kirti': ['Finance', 26], 'Namrata': ['IT', 21]}
```

In [111]:
```
mydict={1:[2,25],
        2:[54,84],
        3:[5,945]
       }
```

In [112]:
```
mydict
```

Out[112]:
```
{1: [2, 25], 2: [54, 84], 3: [5, 945]}
```

In [113]:
```
print(mydict)
```

```
{1: [2, 25], 2: [54, 84], 3: [5, 945]}
```

In [114]:
```
mydict[1]
```

Out[114]:
```
[2, 25]
```

In [118]:
```
len(mydict)
```

Out[118]:
```
3
```

In [119]:
```
mydict={"Tarun":["IT",30],
        "Kirti":["Finance",26],
       "Namrata":["IT",21]}
```

In [120]:
```
mydict["Namrata"][0]="Bank"
```

In [121]:
```
mydict
```

Out[121]:
```
{'Kirti': ['Finance', 26], 'Namrata': ['Bank', 21], 'Tarun': ['IT', 30]}
```

In [ ]:
```

```