In [1]:

```
# Pandas
import numpy as np
import pandas as pd
```

In [2]:

```
# converting series into DataFrame
dict1 =  {
           'Id':pd.Series([1,2,3,4]),
           'Score':pd.Series([100,200,300,400])
}
dict1
```

Out[2]:

```
{'Id': 0    1
 1    2
 2    3
 3    4
 dtype: int64, 'Score': 0    100
 1    200
 2    300
 3    400
 dtype: int64}
```

In [3]:

```
df1 = pd.DataFrame(dict1)
df1
```

Out[3]:

	Id	Score
0	1	100
1	2	200
2	3	300
3	4	400

In [ ]:

```

```

In [6]:

```
 # Another Example
s1 = pd.Series(np.random.randn(5),index=['one','two','three','four','five'])
s1
```

Out[6]:

```
one      0.951661
two      0.297277
three   -0.620858
four     0.624676
five    -1.395816
dtype: float64
```

In [7]:

```
# convert into Data Frame

s1.to_frame()
```

Out[7]:

	0
one	0.951661
two	0.297277
three	-0.620858
four	0.624676
five	-1.395816

In [8]:

```
s2 = pd.Series(np.random.randn(5),index=['one','two','three','four','five'])
s2
```

Out[8]:

```
one     -0.555331
two     -0.834338
three   -0.472762
four     0.598842
five    -0.329990
dtype: float64
```

In [9]:

```
# convert into Data Frame
s2.to_frame()
```

Out[9]:

	0
one	-0.555331
two	-0.834338
three	-0.472762
four	0.598842
five	-0.329990

In [ ]:

```

```

In [10]:

```
# 2nd
# converting into Data Frame
# Join of two Series = dataframe

df2 = pd.concat([s1,s2])
df2
```

Out[10]:

```
one      0.951661
two      0.297277
three   -0.620858
four     0.624676
five    -1.395816
one     -0.555331
two     -0.834338
three   -0.472762
four     0.598842
five    -0.329990
dtype: float64
```

In [11]:

```
# axis-1 will add data in column
df3 = pd.concat([s1,s2],axis=1)
df3
```

Out[11]:

	0	1
one	0.951661	-0.555331
two	0.297277	-0.834338
three	-0.620858	-0.472762
four	0.624676	0.598842
five	-1.395816	-0.329990

In [13]:

```
# creating new index column
df4 = pd.concat([s1,s2],axis=1).reset_index()
df4
```

Out[13]:

	index	0	1
0	one	0.951661	-0.555331
1	two	0.297277	-0.834338
2	three	-0.620858	-0.472762
3	four	0.624676	0.598842
4	five	-1.395816	-0.329990

In [ ]:

```

```

In [17]:

```
# creating new Data Frame

df5 = pd.DataFrame(np.random.randn(25))
df5
```

Out[17]:

	0
0	-0.586512
1	-1.732687
2	-1.700268
3	-0.495009
4	-0.642213
5	-2.110229
6	1.605888
7	-0.668581
8	1.191055
9	-0.327007
10	-0.078898
11	-0.025202
12	0.021386
13	-0.912920
14	1.608569
15	-1.418726
16	0.297343
17	-0.352027
18	-0.451932
19	1.165768
20	-1.604105
21	-0.618188
22	-0.347487
23	-0.223979
24	-0.061848

In [18]:

```
df5 = pd.DataFrame(np.random.randn(25).reshape(5,5))
df5
```

Out[18]:

	0	1	2	3	4
0	2.413045	0.252560	-1.435492	-0.805900	-0.288348
1	-2.229387	-1.301927	0.640730	0.720306	0.162739
2	-0.480307	0.473022	0.179912	0.301848	-0.709930
3	-1.714075	-0.152481	1.371391	-0.598232	1.465435
4	0.016898	0.013713	0.068164	-2.518469	-0.696533

In [19]:

```
df5 = pd.DataFrame(np.random.randn(25)
                   .reshape(5,5)
                   ,index=['one','two','three','four','five'])
df5
```

Out[19]:

	0	1	2	3	4
one	-0.664958	-0.625125	-0.827888	-0.646483	-0.514270
two	0.358666	-0.658268	-0.605013	0.009880	-0.217998
three	0.733718	0.383603	-1.877008	0.616366	0.247838
four	-0.286273	0.679577	-1.682671	-0.027783	-1.481022
five	0.047212	0.947624	0.008394	1.866391	-0.698924

In [21]:

```
df5 = pd.DataFrame(np.random.randn(25)
                   .reshape(5,5)
                   ,index=['one','two','three','four','five'],
                   columns=['1st','2nd','3rd','4th','5th'])
df5
```

Out[21]:

	1st	2nd	3rd	4th	5th
one	-0.623875	1.264325	-1.095855	1.322426	0.200585
two	-1.199144	0.364841	0.212764	-0.320622	1.154629
three	-0.363664	0.850466	0.826537	1.382869	0.074894
four	1.473595	0.280844	0.684692	0.703527	-1.433854
five	0.320513	-1.280012	0.297674	-0.219184	0.160593

In [22]:

```
# drop sec row

df6 = df5.drop('two')
df6
```

Out[22]:

	1st	2nd	3rd	4th	5th
one	-0.623875	1.264325	-1.095855	1.322426	0.200585
three	-0.363664	0.850466	0.826537	1.382869	0.074894
four	1.473595	0.280844	0.684692	0.703527	-1.433854
five	0.320513	-1.280012	0.297674	-0.219184	0.160593

In [23]:

```
# error bcoz we have not mentioned axis value
df7 = df5.drop('2nd')
df7
```

```
---------------------------------------------------------------------------
KeyError                                  Traceback (most recent call last)
<ipython-input-23-16fe0c5c8c3d> in <module>
----> 1 df7 = df5.drop('2nd')
      2 df7

~\Anaconda3\lib\site-packages\pandas\core\frame.py in drop(self, labels, axis, index, columns, level, inplace, errors)
   3938                                           index=index, columns=columns,
   3939                                           level=level, inplace=inplace,
-> 3940                                           errors=errors)
   3941
   3942     @rewrite_axis_style_signature('mapper', [('copy', True),

~\Anaconda3\lib\site-packages\pandas\core\generic.py in drop(self, labels, axis, index, columns, level, inplace, errors)
   3778         for axis, labels in axes.items():
   3779             if labels is not None:
-> 3780                 obj = obj._drop_axis(labels, axis, level=level, errors=errors)
   3781
   3782         if inplace:

~\Anaconda3\lib\site-packages\pandas\core\generic.py in _drop_axis(self, labels, axis, level, errors)
   3810                 new_axis = axis.drop(labels, level=level, errors=errors)
   3811             else:
-> 3812                 new_axis = axis.drop(labels, errors=errors)
   3813             result = self.reindex(**{axis_name: new_axis})
   3814

~\Anaconda3\lib\site-packages\pandas\core\indexes\base.py in drop(self, labels, errors)
   4963             if errors != 'ignore':
   4964                 raise KeyError(
-> 4965                     '{} not found in axis'.format(labels[mask]))
   4966             indexer = indexer[~mask]
   4967         return self.delete(indexer)

KeyError: "['2nd'] not found in axis"
```

In [24]:

```
df7 = df5.drop('2nd',axis=1)
df7
```

Out[24]:

	1st	3rd	4th	5th
one	-0.623875	-1.095855	1.322426	0.200585
two	-1.199144	0.212764	-0.320622	1.154629
three	-0.363664	0.826537	1.382869	0.074894
four	1.473595	0.684692	0.703527	-1.433854
five	0.320513	0.297674	-0.219184	0.160593

In [26]:

```
df8 = df5.drop('2nd',axis=1)
df8
```

Out[26]:

	1st	3rd	4th	5th
one	-0.623875	-1.095855	1.322426	0.200585
two	-1.199144	0.212764	-0.320622	1.154629
three	-0.363664	0.826537	1.382869	0.074894
four	1.473595	0.684692	0.703527	-1.433854
five	0.320513	0.297674	-0.219184	0.160593

In [27]:

```
df5
```

Out[27]:

	1st	2nd	3rd	4th	5th
one	-0.623875	1.264325	-1.095855	1.322426	0.200585
two	-1.199144	0.364841	0.212764	-0.320622	1.154629
three	-0.363664	0.850466	0.826537	1.382869	0.074894
four	1.473595	0.280844	0.684692	0.703527	-1.433854
five	0.320513	-1.280012	0.297674	-0.219184	0.160593

In [29]:

```
df5.drop('3rd',axis=1,inplace=True)
df5
```

Out[29]:

	1st	2nd	4th	5th
one	-0.623875	1.264325	1.322426	0.200585
two	-1.199144	0.364841	-0.320622	1.154629
three	-0.363664	0.850466	1.382869	0.074894
four	1.473595	0.280844	0.703527	-1.433854
five	0.320513	-1.280012	-0.219184	0.160593