

```
In [6]: import pandas as pd
import numpy as np
df = pd.DataFrame(np.arange(0,20).reshape(5,4),index=['Row1','Row2','Row3','Row4','R
df.head()
```

```
Out[6]:
```

	col1	col2	col3	col4
Row1	0	1	2	3
Row2	4	5	6	7
Row3	8	9	10	11
Row4	12	13	14	15
Row5	16	17	18	19

```
In [7]: df.to_csv('sample.csv')
```

```
In [5]: ## Accessing the elements
# 1.loc 2.iloc

df.loc['Row1']
```

```
Out[5]: col1    0
col2    1
col3    2
col4    3
Name: row1, dtype: int32
```

```
In [8]: df.loc[['Row1','Row2']]
```

```
Out[8]:
```

	col1	col2	col3	col4
Row1	0	1	2	3
Row2	4	5	6	7

```
In [10]: type(df.loc['Row1'])
```

```
Out[10]: pandas.core.series.Series
```

```
In [11]: df.iloc[:,:]
```

```
Out[11]:
```

	col1	col2	col3	col4
Row1	0	1	2	3
Row2	4	5	6	7
Row3	8	9	10	11
Row4	12	13	14	15
Row5	16	17	18	19

```
In [12]: ## Take the elements from the Column2
df.iloc[:,1:]
```

```
Out[12]:
```

	col2	col3	col4
Row1	1	2	3

	col2	col3	col4
<b>Row2</b>	5	6	7
<b>Row3</b>	9	10	11
<b>Row4</b>	13	14	15
<b>Row5</b>	17	18	19

In [13]: `df.iloc[0:2,0:2]`

Out[13]:

	col1	col2
<b>Row1</b>	0	1
<b>Row2</b>	4	5

In [14]: `#convert Dataframes into array  
df.iloc[:,1:].values`

Out[14]: array([[ 1, 2, 3],  
[ 5, 6, 7],  
[ 9, 10, 11],  
[13, 14, 15],  
[17, 18, 19]])

In [15]: `df.iloc[:,1:].values.shape`

Out[15]: (5, 3)

In [16]: `df.isnull().sum()`

Out[16]: col1 0  
col2 0  
col3 0  
col4 0  
dtype: int64

In [19]: `#to count the number of values  
df['col1'].value_counts()`

Out[19]: 12 1  
4 1  
16 1  
8 1  
0 1  
Name: col1, dtype: int64

In [20]: `#unique  
df['col1'].unique()`

Out[20]: array([ 0, 4, 8, 12, 16])

In [ ]: