In [5]:
```
rows, columns = df.shape
```

In [2]:
```
import pandas as pd
df = pd.read_excel('weather.xlsx')
df
```

Out[2]:

	Date	temperature	windspeed	event
0	2017-01-01	32	6	Rain
1	2017-01-02	35	7	Sunny
2	2017-01-03	28	2	Snow
3	2017-01-04	24	7	Snow
4	2017-01-05	32	4	Rain
5	2017-01-06	32	2	Sunny

In [6]:
```
rows
```

Out[6]: 6

In [7]:
```
columns
```

Out[7]: 4

In [8]:
```
df.head()
```

Out[8]:

	Date	temperature	windspeed	event
0	2017-01-01	32	6	Rain
1	2017-01-02	35	7	Sunny
2	2017-01-03	28	2	Snow
3	2017-01-04	24	7	Snow
4	2017-01-05	32	4	Rain

In [10]:
```
df.tail(2)
```

Out[10]:

	Date	temperature	windspeed	event
4	2017-01-05	32	4	Rain
5	2017-01-06	32	2	Sunny

In [14]:
```
df[2:5]
```

Out[14]:

	Date	temperature	windspeed	event
2	2017-01-03	28	2	Snow
3	2017-01-04	24	7	Snow
4	2017-01-05	32	4	Rain

In [15]:
```
df.columns
```

Out[15]:
```
Index(['Date', 'temperature', 'windspeed', 'event'], dtype='object')
```

In [18]:
```
df.Date
```

Out[18]:
```
0   2017-01-01
1   2017-01-02
2   2017-01-03
3   2017-01-04
4   2017-01-05
5   2017-01-06
Name: Date, dtype: datetime64[ns]
```

In [22]:
```
df.temperature
```

Out[22]:
```
0    32
1    35
2    28
3    24
4    32
5    32
Name: temperature, dtype: int64
```

In [24]:
```
type(df["event"])
```

Out[24]:
```
pandas.core.series.Series
```

In [25]:
```
df[["event", "Date"]]
```

Out[25]:

	event	Date
0	Rain	2017-01-01
1	Sunny	2017-01-02
2	Snow	2017-01-03
3	Snow	2017-01-04
4	Rain	2017-01-05
5	Sunny	2017-01-06

In [30]:
```
df.temperature.max()
```

Out[30]: 35

In [31]:
```
df.temperature.max()
```

Out[31]: 35

In [32]:
```
df.temperature.min()
```

Out[32]: 24

In [33]:
```
df['temperature'].std()
```

Out[33]: 3.8858718455450894

In [35]:
```
df.describe()
```

Out[35]:

	temperature	windspeed
count	6.000000	6.000000
mean	30.500000	4.666667
std	3.885872	2.338090
min	24.000000	2.000000
25%	29.000000	2.500000
50%	32.000000	5.000000
75%	32.000000	6.750000
max	35.000000	7.000000

In [36]:
```
df[df.temperature>= 32]
```

Out[36]:

	Date	temperature	windspeed	event
0	2017-01-01	32	6	Rain
1	2017-01-02	35	7	Sunny
4	2017-01-05	32	4	Rain
5	2017-01-06	32	2	Sunny

In [39]:
```
df[df.temperature==df.temperature.min()]
```

Out[39]:

	Date	temperature	windspeed	event
3	2017-01-04	24	7	Snow

In [38]:
```
df
```

Out[38]:

	Date	temperature	windspeed	event
0	2017-01-01	32	6	Rain
1	2017-01-02	35	7	Sunny
2	2017-01-03	28	2	Snow
3	2017-01-04	24	7	Snow
4	2017-01-05	32	4	Rain
5	2017-01-06	32	2	Sunny

In [40]:
```
df[['Date', 'temperature']][df.temperature==df['temperature'].max()]
```

Out[40]:

	Date	temperature
1	2017-01-02	35

In [41]:
```
df
```

Out[41]:

	Date	temperature	windspeed	event
0	2017-01-01	32	6	Rain
1	2017-01-02	35	7	Sunny
2	2017-01-03	28	2	Snow
3	2017-01-04	24	7	Snow
4	2017-01-05	32	4	Rain
5	2017-01-06	32	2	Sunny

In [42]:
```
df.index
```

Out[42]:
```
RangeIndex(start=0, stop=6, step=1)
```

In [51]:
```
df.loc['1/3/2017']
```

Out[51]:
```
temperature      28
windspeed         2
event          Snow
Name: 2017-01-03 00:00:00, dtype: object
```

In [ ]:
```
df.set_index('Date',inplace=True)
```

In [52]:
```
df.reset_index(inplace=True)
```

In [53]:
```
df
```

Out[53]:

	Date	temperature	windspeed	event
0	2017-01-01	32	6	Rain
1	2017-01-02	35	7	Sunny
2	2017-01-03	28	2	Snow
3	2017-01-04	24	7	Snow
4	2017-01-05	32	4	Rain
5	2017-01-06	32	2	Sunny

In [ ]:
```

```