In [29]:
```python
import pandas as pd
```

In [30]:
```python
df=pd.read_csv('ETH_1h.csv')
```

In [31]:
```python
df.head()
```

Out[31]:

	Date	Symbol	Open	High	Low	Close	Volume
0	2020-03-13 08-PM	ETHUSD	129.94	131.82	126.87	128.71	1940673.93
1	2020-03-13 07-PM	ETHUSD	119.51	132.02	117.10	129.94	7579741.09
2	2020-03-13 06-PM	ETHUSD	124.47	124.85	115.50	119.51	4898735.81
3	2020-03-13 05-PM	ETHUSD	124.08	127.42	121.63	124.47	2753450.92
4	2020-03-13 04-PM	ETHUSD	124.85	129.51	120.17	124.08	4461424.71

In [32]:
```python
df.loc[0,'Date']
```

Out[32]: '2020-03-13 08-PM'

In [33]:
```python
df['Date']=pd.to_datetime(df['Date'],format='%Y-%m-%d %I-%p')
```

```
In [34]: df.head()
```

Out[34]:

	Date	Symbol	Open	High	Low	Close	Volume
0	2020-03-13 20:00:00	ETHUSD	129.94	131.82	126.87	128.71	1940673.93
1	2020-03-13 19:00:00	ETHUSD	119.51	132.02	117.10	129.94	7579741.09
2	2020-03-13 18:00:00	ETHUSD	124.47	124.85	115.50	119.51	4898735.81
3	2020-03-13 17:00:00	ETHUSD	124.08	127.42	121.63	124.47	2753450.92
4	2020-03-13 16:00:00	ETHUSD	124.85	129.51	120.17	124.08	4461424.71

```
In [35]: df['Weekofday']=df['Date'].dt.day_name()
```

```
In [14]: df.head()
```

Out[14]:

	Date	Symbol	Open	High	Low	Close	Volume	Weekofday
0	2020-03-13 20:00:00	ETHUSD	129.94	131.82	126.87	128.71	1940673.93	Friday
1	2020-03-13 19:00:00	ETHUSD	119.51	132.02	117.10	129.94	7579741.09	Friday
2	2020-03-13 18:00:00	ETHUSD	124.47	124.85	115.50	119.51	4898735.81	Friday
3	2020-03-13 17:00:00	ETHUSD	124.08	127.42	121.63	124.47	2753450.92	Friday
4	2020-03-13 16:00:00	ETHUSD	124.85	129.51	120.17	124.08	4461424.71	Friday

```
In [15]: df['Date'].min()
```

Out[15]: Timestamp('2017-07-01 11:00:00')

```
In [16]: df['Date'].max()
```

Out[16]: Timestamp('2020-03-13 20:00:00')

```
In [17]: df['Date'].max()-df['Date'].min()
```

Out[17]: Timedelta('986 days 09:00:00')

```
In [19]: df.loc[(df['Date']>'2019')&(df['Date']<'2020')]
```

Out[19]:

	Date	Symbol	Open	High	Low	Close	Volume	Weekofday
1749	2019-12-31 23:00:00	ETHUSD	128.33	128.69	128.14	128.54	440678.91	Tuesday
1750	2019-12-31 22:00:00	ETHUSD	128.38	128.69	127.95	128.33	554646.02	Tuesday
1751	2019-12-31 21:00:00	ETHUSD	127.86	128.43	127.72	128.38	350155.69	Tuesday
1752	2019-12-31 20:00:00	ETHUSD	127.84	128.34	127.71	127.86	428183.38	Tuesday
1753	2019-12-31 19:00:00	ETHUSD	128.69	128.69	127.60	127.84	1169847.84	Tuesday
...	...	...	...	...	...	...	...	...
10503	2019-01-01 05:00:00	ETHUSD	131.96	132.58	131.96	132.48	317851.90	Tuesday
10504	2019-01-01 04:00:00	ETHUSD	130.75	133.96	130.74	131.96	2791135.37	Tuesday
10505	2019-01-01 03:00:00	ETHUSD	130.06	130.79	130.06	130.75	503732.63	Tuesday
10506	2019-01-01 02:00:00	ETHUSD	130.79	130.88	129.55	130.06	838183.43	Tuesday
10507	2019-01-01 01:00:00	ETHUSD	131.62	131.62	130.77	130.79	434917.99	Tuesday

8759 rows × 8 columns

setting the index and then slicing for filtering

```
In [20]: df.set_index('Date',inplace=True)
```

```
In [21]: df.head()
```

Out[21]:

Date	Symbol	Open	High	Low	Close	Volume	Weekofday
2020-03-13 20:00:00	ETHUSD	129.94	131.82	126.87	128.71	1940673.93	Friday
2020-03-13 19:00:00	ETHUSD	119.51	132.02	117.10	129.94	7579741.09	Friday
2020-03-13 18:00:00	ETHUSD	124.47	124.85	115.50	119.51	4898735.81	Friday
2020-03-13 17:00:00	ETHUSD	124.08	127.42	121.63	124.47	2753450.92	Friday
2020-03-13 16:00:00	ETHUSD	124.85	129.51	120.17	124.08	4461424.71	Friday

```
In [26]: df['2020-01':'2020-02']['Close'].mean()
```

Out[26]: 195.1655902777778

```
In [ ]:
```