Question 1

May 6, 2022

0.1   Question 1 - Extracting Tesla Stock Data Using yfinance - 2 Points

```python
[7]: !pip install yfinance==0.1.67
     #!pip install pandas==1.3.3

     import yfinance as yf
     import pandas as pd
```

```
Collecting yfinance==0.1.67
  Downloading yfinance-0.1.67-py2.py3-none-any.whl (25 kB)
Requirement already satisfied: pandas>=0.24 in
/home/jupyterlab/conda/envs/python/lib/python3.7/site-packages (from
yfinance==0.1.67) (1.3.5)
Requirement already satisfied: requests>=2.20 in
/home/jupyterlab/conda/envs/python/lib/python3.7/site-packages (from
yfinance==0.1.67) (2.27.1)
Requirement already satisfied: lxml>=4.5.1 in
/home/jupyterlab/conda/envs/python/lib/python3.7/site-packages (from
yfinance==0.1.67) (4.6.4)
Collecting multitasking>=0.0.7
  Downloading multitasking-0.0.10.tar.gz (8.2 kB)
  Preparing metadata (setup.py) … done
Requirement already satisfied: numpy>=1.15 in
/home/jupyterlab/conda/envs/python/lib/python3.7/site-packages (from
yfinance==0.1.67) (1.21.6)
Requirement already satisfied: python-dateutil>=2.7.3 in
/home/jupyterlab/conda/envs/python/lib/python3.7/site-packages (from
pandas>=0.24->yfinance==0.1.67) (2.8.2)
Requirement already satisfied: pytz>=2017.3 in
/home/jupyterlab/conda/envs/python/lib/python3.7/site-packages (from
pandas>=0.24->yfinance==0.1.67) (2022.1)
Requirement already satisfied: certifi>=2017.4.17 in
/home/jupyterlab/conda/envs/python/lib/python3.7/site-packages (from
requests>=2.20->yfinance==0.1.67) (2021.10.8)
Requirement already satisfied: urllib3<1.27,>=1.21.1 in
/home/jupyterlab/conda/envs/python/lib/python3.7/site-packages (from
requests>=2.20->yfinance==0.1.67) (1.26.9)
Requirement already satisfied: idna<4,>=2.5 in
```

```
/home/jupyterlab/conda/envs/python/lib/python3.7/site-packages (from
requests>=2.20->yfinance==0.1.67) (3.3)
Requirement already satisfied: charset-normalizer~=2.0.0 in
/home/jupyterlab/conda/envs/python/lib/python3.7/site-packages (from
requests>=2.20->yfinance==0.1.67) (2.0.12)
Requirement already satisfied: six>=1.5 in
/home/jupyterlab/conda/envs/python/lib/python3.7/site-packages (from python-
dateutil>=2.7.3->pandas>=0.24->yfinance==0.1.67) (1.16.0)
Building wheels for collected packages: multitasking
  Building wheel for multitasking (setup.py) … done
  Created wheel for multitasking: filename=multitasking-0.0.10-py3-none-
any.whl size=8500
sha256=f34b6f3739ac6714d7ba4864ae581fb6c8d5e6c5c8cabd4f3f04c1eaeb4d1a60
  Stored in directory: /home/jupyterlab/.cache/pip/wheels/34/ba/79/c0260c6f1a03f
420ec7673eff9981778f293b9107974679e36
Successfully built multitasking
Installing collected packages: multitasking, yfinance
Successfully installed multitasking-0.0.10 yfinance-0.1.67
```

[14]:
```python
tesla = yf.Ticker("TSLA")
```

[30]:
```python
tesla_data = tesla.history(period="max")
```

[31]:
```python
tesla_data.reset_index(inplace=True)
tesla_data.head()
```

[31]:
	Date	Open	High	Low	Close	Volume	Dividends	Stock Splits
0	2010-06-29	3.800	5.000	3.508	4.778	93831500	0	0.0
1	2010-06-30	5.158	6.084	4.660	4.766	85935500	0	0.0
2	2010-07-01	5.000	5.184	4.054	4.392	41094000	0	0.0
3	2010-07-02	4.600	4.620	3.742	3.840	25699000	0	0.0
4	2010-07-06	4.000	4.000	3.166	3.222	34334500	0	0.0