

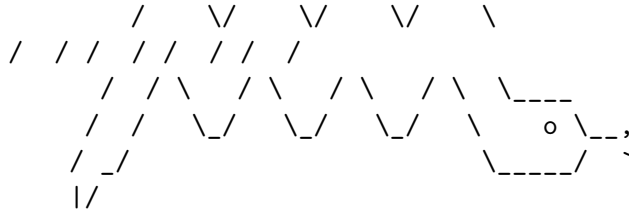
Question 4

March 4, 2023

```
[9]: !pip install pandas==1.3.3
!pip install requests==2.26.0
!mamba install bs4==4.10.0 -y
!mamba install html5lib==1.1 -y
!pip install lxml==4.6.4
#!pip install plotly==5.3.1
```

```
Requirement already satisfied: pandas==1.3.3 in
/home/jupyterlab/conda/envs/python/lib/python3.7/site-packages (1.3.3)
Requirement already satisfied: python-dateutil>=2.7.3 in
/home/jupyterlab/conda/envs/python/lib/python3.7/site-packages (from
pandas==1.3.3) (2.8.2)
Requirement already satisfied: pytz>=2017.3 in
/home/jupyterlab/conda/envs/python/lib/python3.7/site-packages (from
pandas==1.3.3) (2022.6)
Requirement already satisfied: numpy>=1.17.3 in
/home/jupyterlab/conda/envs/python/lib/python3.7/site-packages (from
pandas==1.3.3) (1.21.6)
Requirement already satisfied: six>=1.5 in
/home/jupyterlab/conda/envs/python/lib/python3.7/site-packages (from python-
dateutil>=2.7.3->pandas==1.3.3) (1.16.0)
Requirement already satisfied: requests==2.26.0 in
/home/jupyterlab/conda/envs/python/lib/python3.7/site-packages (2.26.0)
Requirement already satisfied: certifi>=2017.4.17 in
/home/jupyterlab/conda/envs/python/lib/python3.7/site-packages (from
requests==2.26.0) (2022.12.7)
Requirement already satisfied: urllib3<1.27,>=1.21.1 in
/home/jupyterlab/conda/envs/python/lib/python3.7/site-packages (from
requests==2.26.0) (1.26.13)
Requirement already satisfied: idna<4,>=2.5 in
/home/jupyterlab/conda/envs/python/lib/python3.7/site-packages (from
requests==2.26.0) (3.4)
Requirement already satisfied: charset-normalizer~=2.0.0 in
/home/jupyterlab/conda/envs/python/lib/python3.7/site-packages (from
requests==2.26.0) (2.0.12)
```

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mamba (0.15.3) supported by @QuantStack

GitHub: <https://github.com/mamba-org/mamba>

Twitter: <https://twitter.com/QuantStack>

Looking for: ['bs4==4.10.0']

pkgs/main/linux-64	Using cache
pkgs/main/noarch	Using cache
pkgs/r/linux-64	Using cache
pkgs/r/noarch	Using cache

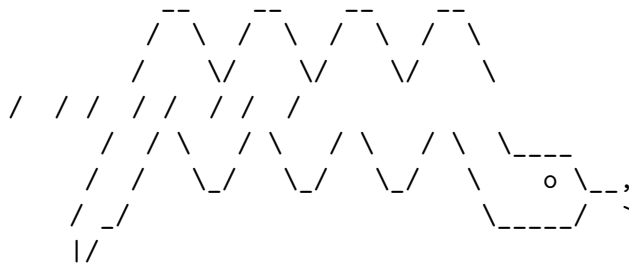
Pinned packages:

- python 3.7.*

Transaction

Prefix: /home/jupyterlab/conda/envs/python

All requested packages already installed



mamba (0.15.3) supported by @QuantStack

GitHub: <https://github.com/mamba-org/mamba>

Twitter: <https://twitter.com/QuantStack>

Looking for: ['html5lib==1.1']

pkgs/main/linux-64	Using cache
pkgs/main/noarch	Using cache
pkgs/r/linux-64	Using cache
pkgs/r/noarch	Using cache

Pinned packages:

- python 3.7.*

Transaction

Prefix: /home/jupyterlab/conda/envs/python

All requested packages already installed

Requirement already satisfied: lxml==4.6.4 in
/home/jupyterlab/conda/envs/python/lib/python3.7/site-packages (4.6.4)

```
[10]: import pandas as pd
import requests
from bs4 import BeautifulSoup
```

```
[21]: url = "https://cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud/
↳ IBMDeveloperSkillsNetwork-PY0220EN-SkillsNetwork/labs/project/stock.html"

data = requests.get(url).text
```

```
[12]: soup = BeautifulSoup(data, 'html5lib')
```

```
[22]: gme_data = pd.DataFrame(columns=["Date", "Open", "High", "Low", "Close", "
↳ Volume"])
```

```
[14]: for row in soup.find("tbody").find_all('tr'):
        col = row.find_all("td")
        date = col[0].text
        Open = col[1].text
        high = col[2].text
        low = col[3].text
        close = col[4].text
        adj_close = col[5].text
        volume = col[6].text
```

```
[23]: gme_data = amazon_data.append({"Date":date, "Open":Open, "High":high, "Low":
        ↪low, "Close":close, "Adj Close":adj_close, "Volume":volume},
        ↪ignore_index=True)
gme_data.head()
```

```
[23]:
```

	Date	Open	High	Low	Close	Volume	Adj Close
0	Jan 01, 2016	656.29	657.72	547.18	587.00	130,200,900	587.00
1	Jan 01, 2016	656.29	657.72	547.18	587.00	130,200,900	587.00
2	Jan 01, 2016	656.29	657.72	547.18	587.00	130,200,900	587.00

```
[24]: read_html_pandas_data = pd.read_html(url)
read_html_pandas_data = pd.read_html(str(soup))
gme_dataframe = read_html_pandas_data[0]
gme_dataframe.head()
```

```
[24]:
```

	Date	Open	High	Low	Close*	Adj Close**	Volume
0	Jan 01, 2021	3270.00	3363.89	3086.00	3206.20	3206.20	71528900
1	Dec 01, 2020	3188.50	3350.65	3072.82	3256.93	3256.93	77556200
2	Nov 01, 2020	3061.74	3366.80	2950.12	3168.04	3168.04	90810500
3	Oct 01, 2020	3208.00	3496.24	3019.00	3036.15	3036.15	116226100
4	Sep 01, 2020	3489.58	3552.25	2871.00	3148.73	3148.73	115899300

```
[ ]:
```