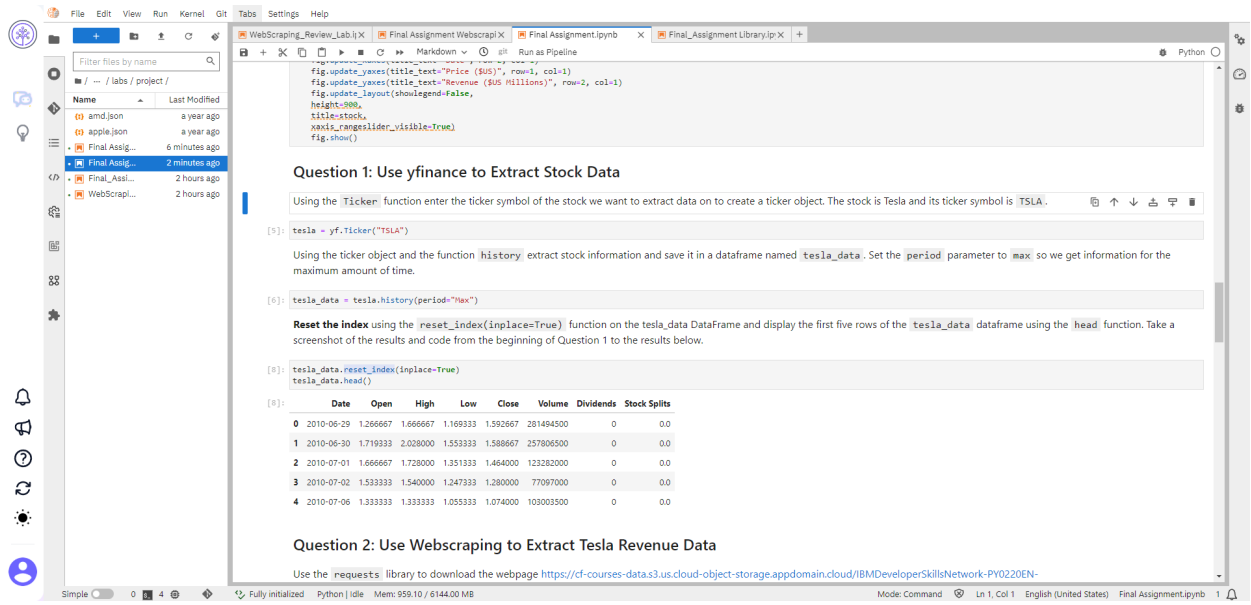


Question 1: Use yfinance to Extract Stock Data

Using the `Ticker` function enter the ticker symbol of the stock we want to extract data on to create a ticker object. The stock is Tesla and its ticker symbol is `TSLA`.

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

Using the ticker object and the function `history` extract stock information and save it in a dataframe named `tesla_data`. Set the `period` parameter to `max` so we get information for the maximum amount of time.

```
[6]: tesla_data = tesla.history(period="Max")
```

Reset the index using the `reset_index(inplace=True)` function on the tesla_data DataFrame and display the first five rows of the `tesla_data` dataframe using the `head` function. Take a screenshot of the results and code from the beginning of Question 1 to the results below.

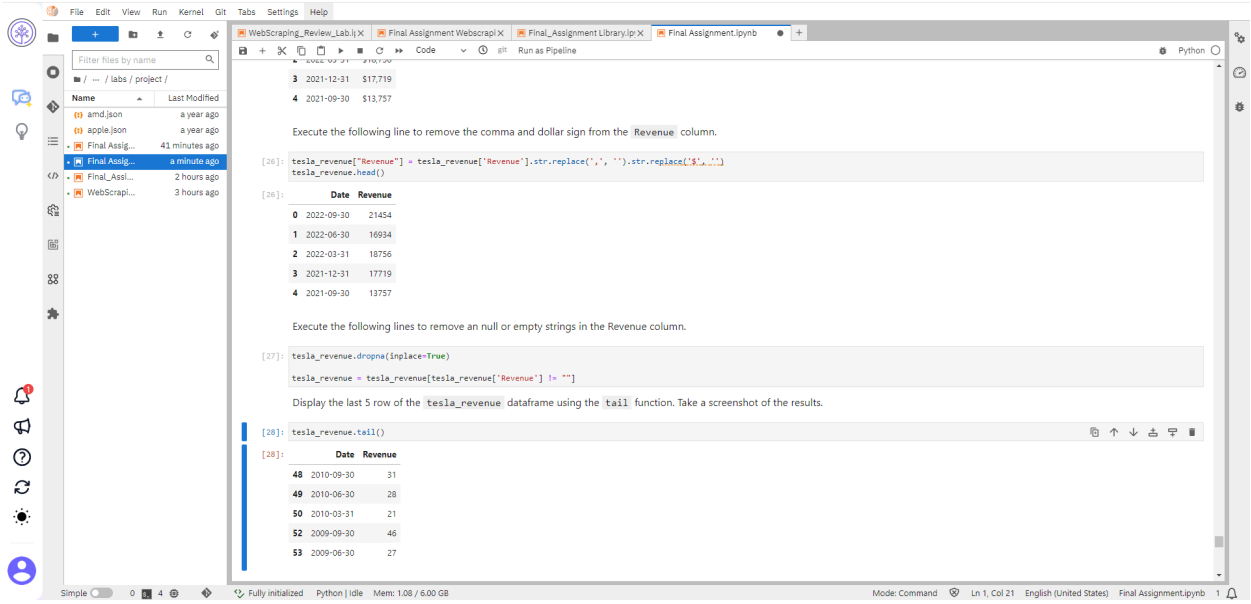
```
[8]: tesla_data.reset_index(inplace=True)
tesla_data.head()
```

[8]:

	Date	Open	High	Low	Close	Volume	Dividends	Stock Splits
0	2010-06-29	1.266667	1.666667	1.169333	1.592667	281494500	0	0.0
1	2010-06-30	1.719333	2.028000	1.553333	1.588667	257806500	0	0.0
2	2010-07-01	1.666667	1.728000	1.351333	1.464000	123282000	0	0.0
3	2010-07-02	1.533333	1.540000	1.247333	1.280000	77097000	0	0.0
4	2010-07-06	1.333333	1.333333	1.055333	1.074000	103003500	0	0.0

Question 2: Use Webscraping to Extract Tesla Revenue Data

Use the `requests` library to download the webpage https://cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud/IBMDeveloperSkillsNetwork-PY0220EN-



Execute the following line to remove the comma and dollar sign from the `Revenue` column.

```
[26]: tesla_revenue["Revenue"] = tesla_revenue['Revenue'].str.replace(',', '').str.replace('$', '')
tesla_revenue.head()
```

[26]:

	Date	Revenue
0	2022-09-30	21454
1	2022-06-30	16934
2	2022-03-31	18756
3	2021-12-31	17719
4	2021-09-30	13757

Execute the following lines to remove an null or empty strings in the Revenue column.

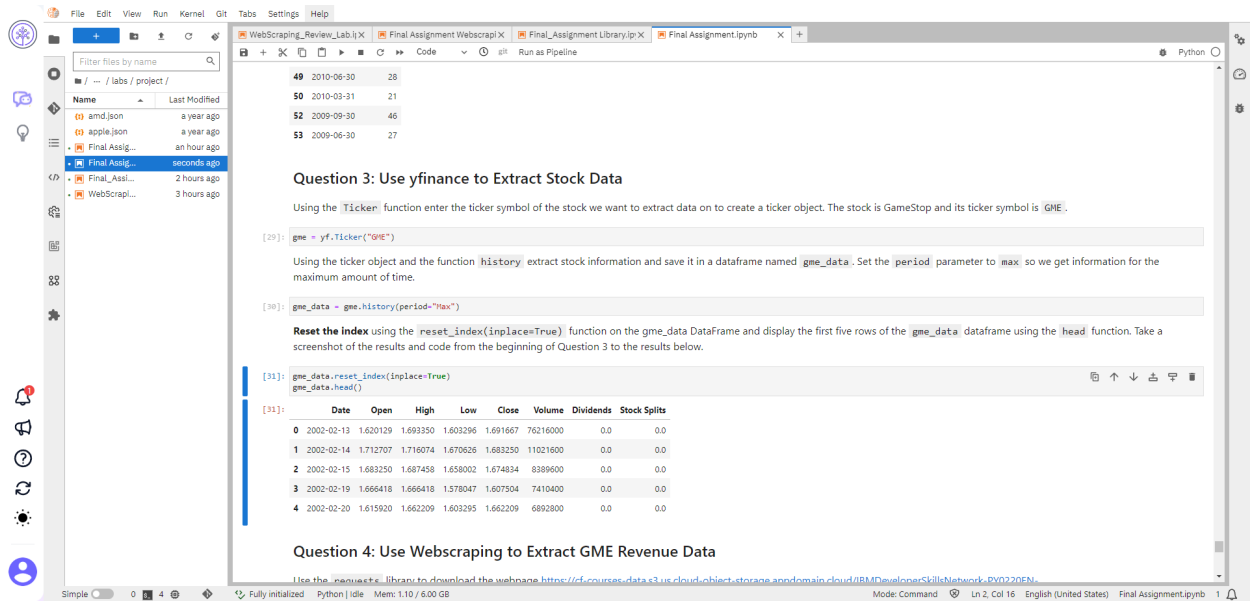
```
[27]: tesla_revenue.dropna(inplace=True)

tesla_revenue = tesla_revenue[tesla_revenue['Revenue'] != ""]
```

Display the last 5 row of the `tesla_revenue` dataframe using the `tail` function. Take a screenshot of the results.

```
[28]: tesla_revenue.tail()
```

[28]:

	Date	Revenue
48	2010-09-30	31
49	2010-06-30	28
50	2010-03-31	21
52	2009-09-30	46
53	2009-06-30	27



49	2010-06-30	28
50	2010-03-31	21
52	2009-09-30	46
53	2009-06-30	27

Question 3: Use yfinance to Extract Stock Data

Using the `Ticker` function enter the ticker symbol of the stock we want to extract data on to create a ticker object. The stock is GameStop and its ticker symbol is `GME`.

```
[29]: gme = yf.Ticker("GME")
```

Using the ticker object and the function `history` extract stock information and save it in a dataframe named `gme_data`. Set the `period` parameter to `max` so we get information for the maximum amount of time.

```
[30]: gme_data = gme.history(period="Max")
```

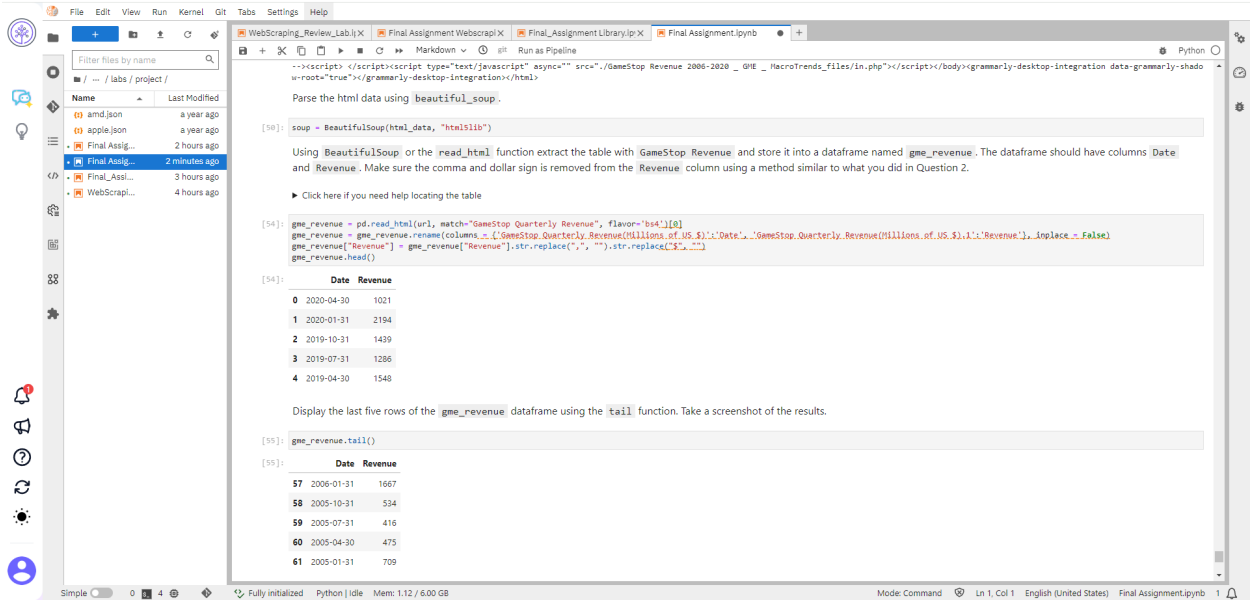
Reset the index using the `reset_index(inplace=True)` function on the gme_data DataFrame and display the first five rows of the `gme_data` dataframe using the `head` function. Take a screenshot of the results and code from the beginning of Question 3 to the results below.

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

[31]:

	Date	Open	High	Low	Close	Volume	Dividends	Stock Splits
0	2002-02-13	1.620129	1.693350	1.603296	1.691667	76216000	0.0	0.0
1	2002-02-14	1.712707	1.716074	1.670626	1.683250	11021600	0.0	0.0
2	2002-02-15	1.683250	1.687458	1.658002	1.674834	8389600	0.0	0.0
3	2002-02-19	1.666418	1.666418	1.578047	1.607504	7410400	0.0	0.0
4	2002-02-20	1.615920	1.662209	1.603295	1.662209	6892800	0.0	0.0

Question 4: Use Webscraping to Extract GME Revenue Data



--><script> </script><script type="text/javascript" async="" src="./GameStop Revenue 2006-2020 _ GME _ MacroTrends_files/in.php"></script></body><grammarly-desktop-integration data-grammarly-shadow-root="true"></grammarly-desktop-integration></html>

Parse the html data using `beautiful_soup`.

```
[50]: soup = BeautifulSoup(html_data, "html5lib")
```

Using `BeautifulSoup` or the `read_html` function extract the table with `GameStop Revenue` and store it into a dataframe named `gme_revenue`. The dataframe should have columns `Date` and `Revenue`. Make sure the comma and dollar sign is removed from the `Revenue` column using a method similar to what you did in Question 2.

▶ Click here if you need help locating the table

```
[54]: gme_revenue = pd.read_html(url, match="GameStop Quarterly Revenue", flavor='bs4')[0]
      gme_revenue = gme_revenue.rename(columns = {'GameStop Quarterly Revenue(Millions of US $)':'Date', 'GameStop Quarterly Revenue(Millions of US $).1':'Revenue'}, inplace = False)
      gme_revenue["Revenue"] = gme_revenue["Revenue"].str.replace(",", "").str.replace("$", "")
      gme_revenue.head()
```

[54]:

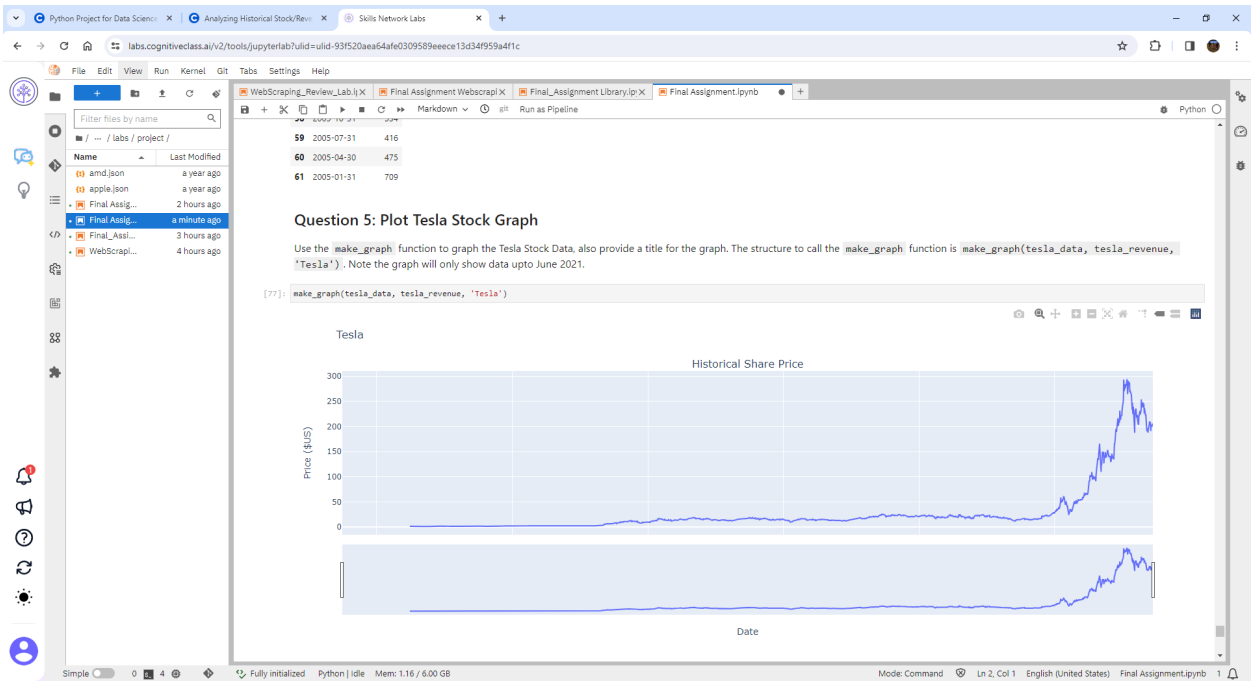
	Date	Revenue
0	2020-04-30	1021
1	2020-01-31	2194
2	2019-10-31	1439
3	2019-07-31	1286
4	2019-04-30	1548

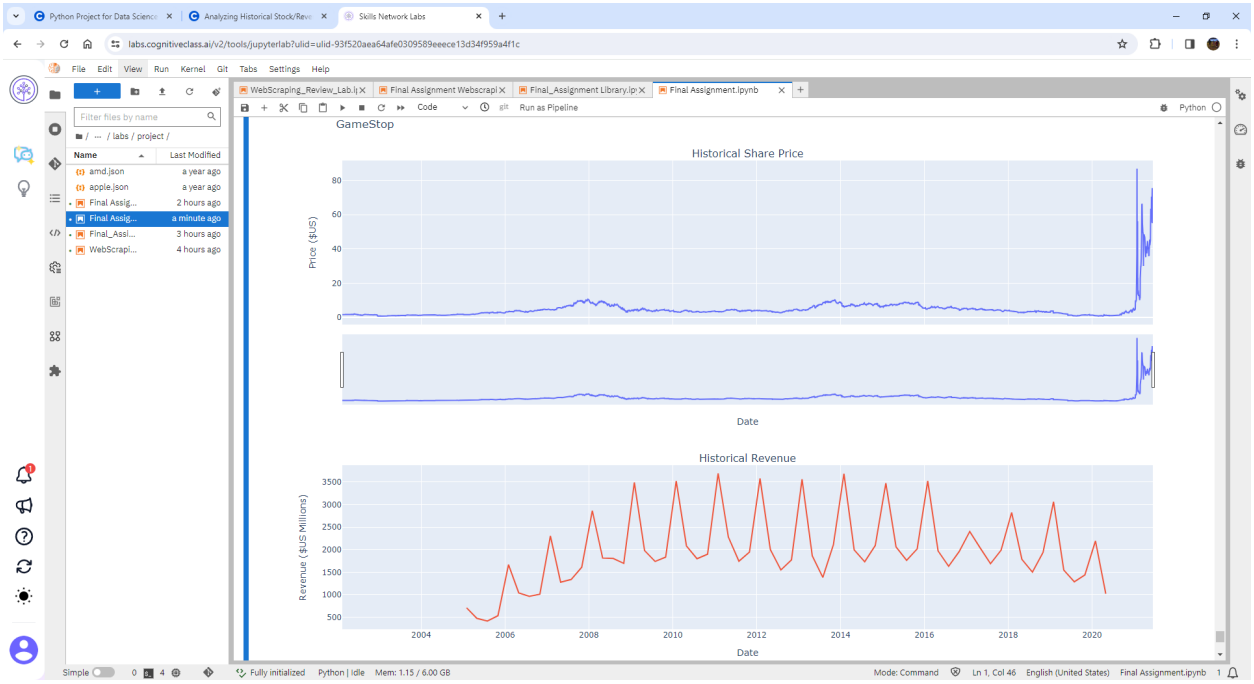
Display the last five rows of the `gme_revenue` dataframe using the `tail` function. Take a screenshot of the results.

```
[55]: gme_revenue.tail()
```

[55]:

	Date	Revenue
57	2006-01-31	1667
58	2005-10-31	534
59	2005-07-31	416
60	2005-04-30	475
61	2005-01-31	709


59 2005-07-31 416
60 2005-04-30 475
61 2005-01-31 709
Question 5: Plot Tesla Stock Graph
Use the make_graph function to graph the Tesla Stock Data, also provide a title for the graph. The structure to call the make_graph function is make_graph(tesla_data, tesla_revenue, 'Tesla'). Note the graph will only show data upto June 2021.
[77]: make_graph(tesla_data, tesla_revenue, 'Tesla')
Tesla
Historical Share Price
Price ($US)
Date


GameStop
Historical Share Price
Price ($US)
Date
Historical Revenue
Revenue ($US Millions)
Date