Peer-graded Assignment: Analyzing Historical Stock/Revenue Data and Building a Dashboard

You passed!
Congratulations. You earned 12 / 12 points. Review the feedback below and continue the course when you are ready. You can also help more peers by reviewing their submissions.

Review assignments

Instructions **My submission** Discussions

Stock/Revenue Data and Building a Dashboard

Submitted on December 6, 2023

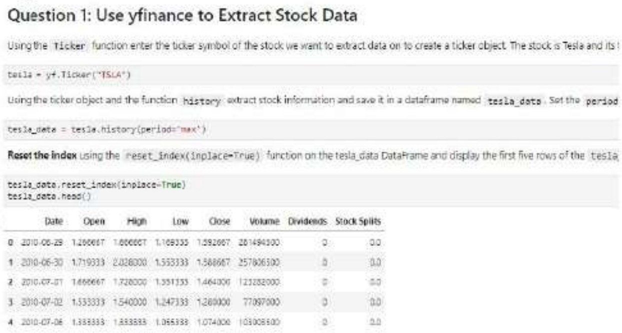
Shareable Link

PROMPT

Question 1: Use yfinance to Extract Stock Data

Reset the index, save, and display the first five rows of the **`tesla_data`** dataframe using the **`head`** function. Upload a screenshot of the results and code from the beginning of Question 1 to the results below.

tesla_data



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 !

```
[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`

```
[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`

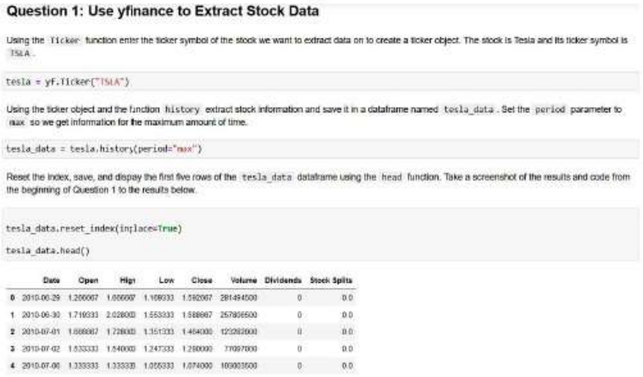
```
[7]: tesla_data.reset_index(inplace=True)
     tesla_data.head()
```

```
[7]:        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
```

tesla_data.reset_index(inplace=True) tesla_data.head(5)

RUBRIC

Does the learner have the following solution?



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`.

```
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.

```
tesla_data = tesla.history(period="max")
```

Reset the index, save, and dispay 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.

```
tesla_data.reset_index(inplace=True)

tesla_data.head()
```

```
        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
```

TIP: If the screenshot appears small and is hard to read try zooming in by pressing the "Ctrl" and "+" keys together (Mac: "Command" and "+"), or Right-click on the image and "View Image" (Firefox) or "Open Image in new Tab" (Chrome)

○ 0 points
The **`High`** of the first row is not 1.666667 and the **`Ticker`** and **`history`** function is not called with the proper parameters as shown in the solution above.

○ 1 point
The **`High`** of the first row is 1.666667 but the **`Ticker`** and **`history`** function is not called with the proper parameters as shown in the solution above.

○ 1 point
The **`High`** of the first row is not 1.666667 but the **`Ticker`** and **`history`** function is called with the proper parameters as shown in the solution above.

● **2 points** MS
The `High` of the first row is 1.666667 and the `Ticker` and `history` function is called with the proper parameters as shown in the solution above.

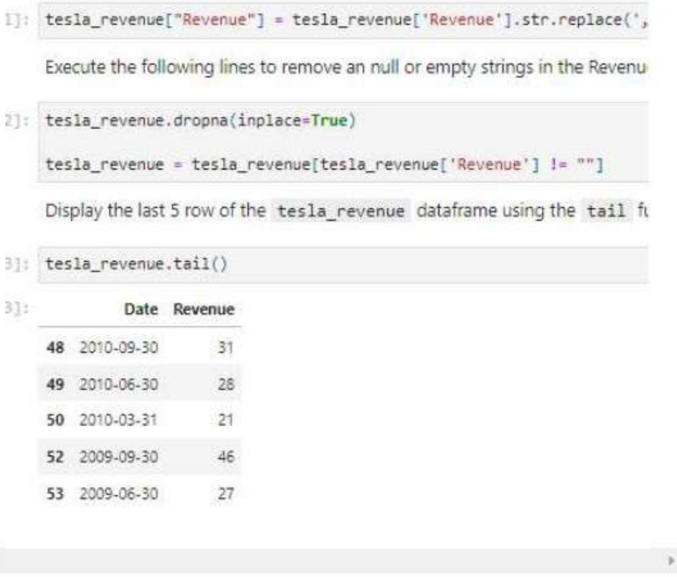
PROMPT

RUBRIC

Question 2: Use Webscraping to Extract Tesla Revenue Data

Display the last five rows of the `tesla_revenue` dataframe using the `tail` function. Upload a screenshot of the results.

tesla_revenue



```
1]: tesla_revenue["Revenue"] = tesla_revenue['Revenue'].str.replace(',
```

Execute the following lines to remove an null or empty strings in the Revenu

```
2]: tesla_revenue.dropna(inplace=True)

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

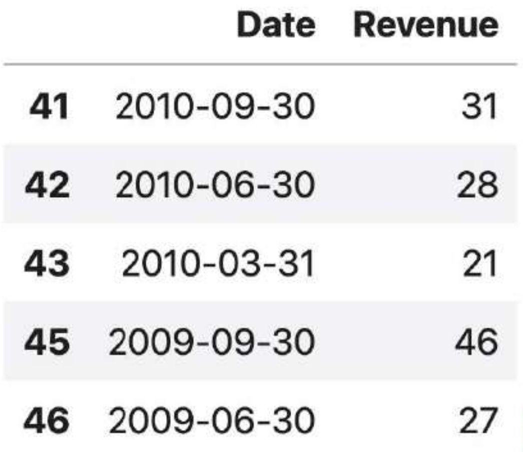
Display the last 5 row of the `tesla_revenue` dataframe using the `tail` f

```
3]: tesla_revenue.tail()
```

3]:

	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

Does the learner have the following DataFrame?



	Date	Revenue
41	2010-09-30	31
42	2010-06-30	28
43	2010-03-31	21
45	2009-09-30	46
46	2009-06-30	27

IBM

○ 0 points
No, the **`Revenue`** on the last row is not 27.

● **1 point**
Yes, the `Revenue` on the last row is 27.

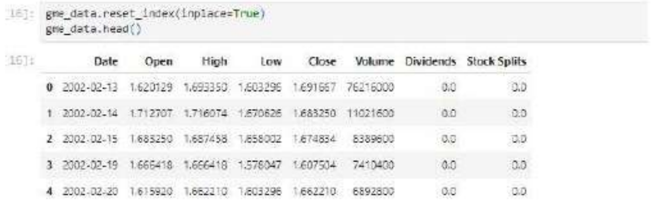
MS

PROMPT

Question 3: Use yfinance to Extract Stock Data

Reset the index, save, and display the first five rows of the `gme_data` dataframe using the **`head`** function. Upload a screenshot of the results and code from the beginning of Question 1 to the results below.

gme_data



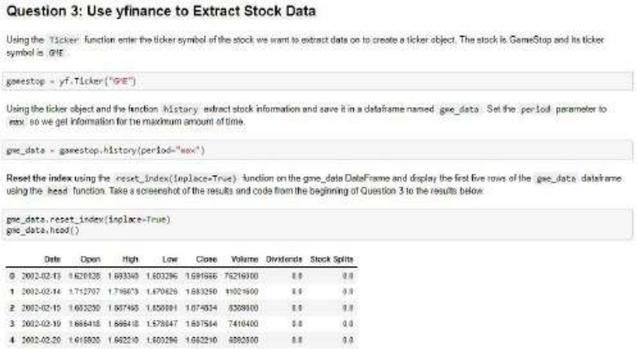
```
16]: gme_data.reset_index(inplace=True)
     gme_data.head()
```

16]:

	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	1.662210	1.603296	1.662210	6892800	0.0	0.0

RUBRIC

Does the learner have the following solution?



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`.

```
gamestop = 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.

```
gme_data = gamestop.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.

```
gme_data.reset_index(inplace=True)
gme_data.head()
```

	Date	Open	High	Low	Close	Volume	Dividends	Stock Splits
0	2002-02-13	1.620128	1.693349	1.603296	1.691666	76216000	0.0	0.0
1	2002-02-14	1.712707	1.716073	1.670626	1.683250	11021600	0.0	0.0
2	2002-02-15	1.683250	1.687458	1.658001	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	1.662210	1.603296	1.662210	6892800	0.0	0.0

○ 0 points
The **`High`** of the first row is not 1.693350 and the **`Ticker`** and **`history`** function is not called with the proper parameters as shown in the solution above.

○ 1 point
The **`High`** of the first row is 1.693350 but the **`Ticker`** and **`history`** function is not called with the proper parameters as shown in the solution above.

○ 1 point
The **`High`** of the first row is not 1.693350 but the **`Ticker`** and **`history`** function is called with the proper parameters as shown in the solution above.

● **2 points**
The `High` of the first row is 1.693350 and the `Ticker` and `history` function is called with the proper

MS

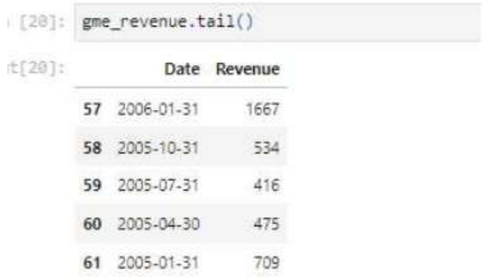
parameters as shown in the solution above.

PROMPT

Question 4: Use Webscraping to Extract GME Revenue Data

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

gme_revenue

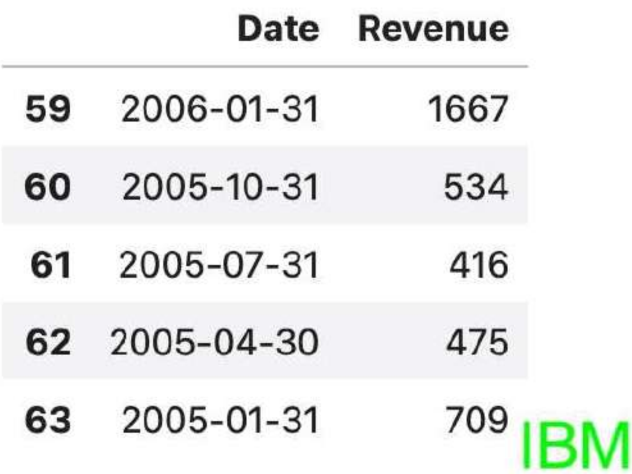


```
[20]: gme_revenue.tail()
```

```
t[20]:       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
```

RUBRIC

Does the learner have the following DataFrame?



	Date	Revenue
59	2006-01-31	1667
60	2005-10-31	534
61	2005-07-31	416
62	2005-04-30	475
63	2005-01-31	709

○ 0 points
No, the **`Revenue`** of the last row is not 709.

● **1 point**
Yes, the `Revenue` of the last row is 709.

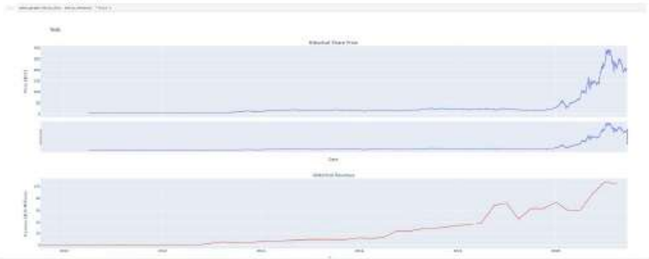
MS

PROMPT

Question 5: Plot Tesla Stock Graph

Use the `make_graph` function to graph the Tesla Stock Data, also provide a title for the graph.
Upload a screenshot of your results.

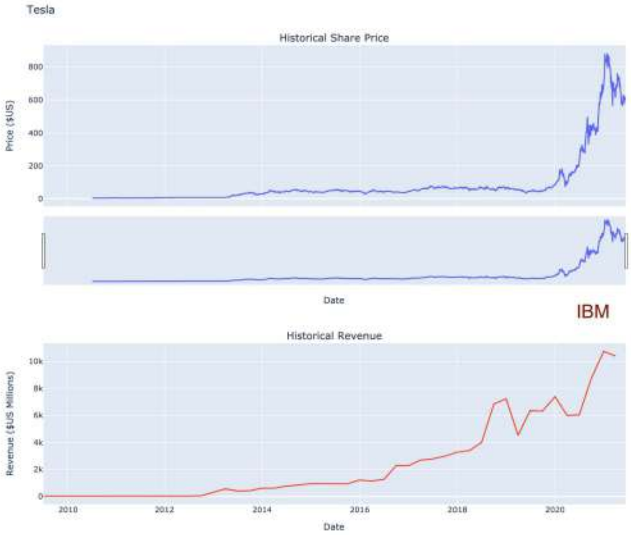
make_graph



RUBRIC

Does the learner's dashboard look like the following image?

Please note that the learner's solution does not need to match the solution below exactly.



○ 0 points
No, there are no graphs or the graphs have no data in them.

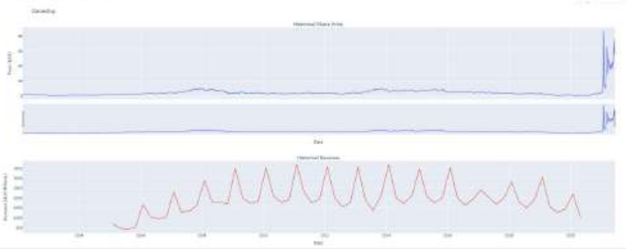
○ 1 point
Yes, there are two graphs with a range slider in between populated with values but the data does not go back to at least 2012. The X-axis is the Date and the Y-axis is in US Dollar. The graph data DOES NOT need

PROMPT

Question 6: Plot GameStop Stock Graph

Use the `make_graph` function to graph the GameStop Stock Data, also provide a title for the graph.
Upload a screenshot of your results.

make_graph2

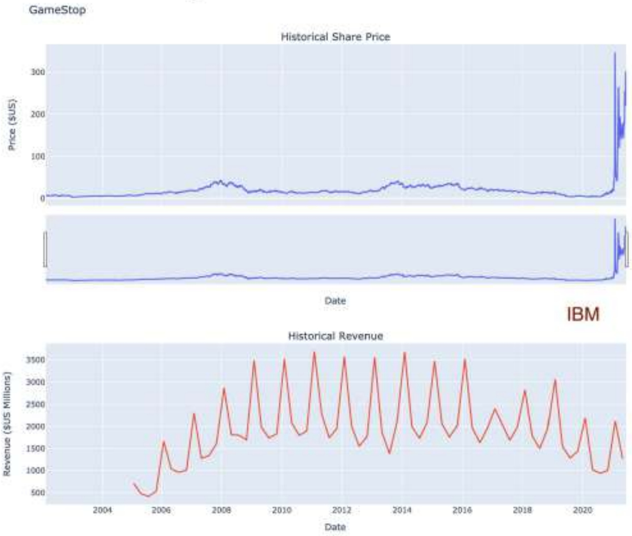


RUBRIC

MS

Does the learner's dashboard look like the following image?

Please note that the learner's solution does not need to match the solution below exactly.



○ 0 points
No, there are no graphs or the graphs have no data in them.

○ 1 point
Yes, there are two graphs with a range slider in between populated with values but the data does not go back to at least 2006. The X-axis is the Date and the Y-axis is in US Dollar. The graph data DOES NOT need to look exactly like the solution above

● **2 points** MS

Yes, there are two graphs with a range slider in between populated with values and the data does go back to at least 2006. The X-axis is the Date and the Y-axis is in US Dollar. The graph data DOES NOT need to look exactly like the solution above

PROMPT

Add the GitHub link or the URL to your assignment in Watson Studio using the share notebook lab instructions.

https://github.com/AlessandroBenevelliRE/Analyzing-Historical-Stock-Revenue-Data_webscraping/blob/main/Final%20Assignment%20(1).ipynb

RUBRIC

Does the learner have a viable share link? Click the link and verify it leads to the correct assignment.

○ 0 points
There is no link.

○ 1 point
There is a link but it does not work or go to the correct assignment.

● **2 points**
There is a link and it goes to the correct assignment. MS