

### 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`.

```
In [4]: 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.

```
In [5]: 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.

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

Out[31]:

	Index	Date	Open	High	Low	Close	Volume	Dividends	Stock Splits
0	0	2010-06-29	3.800	5.000	3.508	4.778	93831500	0	0.0
1	1	2010-06-30	5.158	8.084	4.680	4.766	85935500	0	0.0
2	2	2010-07-01	5.000	5.184	4.054	4.392	41094000	0	0.0
3	3	2010-07-02	4.600	4.620	3.742	3.840	25699000	0	0.0
4	4	2010-07-06	4.000	4.000	3.168	3.222	34334500	0	0.0

### Question 2: Use Webcrawling to Extract Tesla Revenue Data

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date = col[0].text  
revenue = col[1].text.replace("\$", "").replace(",", "")  
tesla\_revenue = tesla\_revenue.append({"Date": date, "Revenue": revenue}, ignore\_index=True)

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

In [26]: tesla\_revenue["Revenue"] = tesla\_revenue["Revenue"].str.replace(',', '\\\$', "")

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

In [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.

In [30]: tesla\_revenue.tail()

Out[30]:

	Date	Revenue
43	2010-09-30	31
44	2010-06-30	28
45	2010-03-31	21
47	2009-09-30	46
48	2009-06-30	27

### Question 3: Use vfinance to Extract Stock Data

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### 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`.

```
In [32]: 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.

```
In [33]: 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.

```
In [34]: gme_data.reset_index(inplace=True)
gme_data.head()
```

```
Out[34]:
```

	Date	Open	High	Low	Close	Volume	Dividends	Stock Splits
0	2002-02-13	6.480513	6.773399	6.413183	6.766666	19054000	0.0	0.0
1	2002-02-14	6.850828	6.804294	6.682503	6.733000	2785400	0.0	0.0
2	2002-02-15	6.733001	6.749833	6.632006	6.699336	2097400	0.0	0.0
3	2002-02-19	6.665670	6.665670	6.312188	6.430016	1862600	0.0	0.0
4	2002-02-20	6.463682	6.648839	6.413184	6.648839	1723200	0.0	0.0

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```
In [50]: tables = soup.find_all('table')

for index,table in enumerate(tables):
    if ("GameStop Quarterly Revenue" in str(table)):
        table_index = index

gme_revenue = pd.DataFrame(columns=["Date", "Revenue"])

for row in tables[gme_table_index].tbody.find_all("tr"):
    col = row.find_all("td")
    if (col != []):
        date = col[0].text
        revenue = col[1].text.replace("$", "").replace(",","")
        gme_revenue = gme_revenue.append({"Date" : date, "Revenue" : revenue}, ignore_index=True)
```

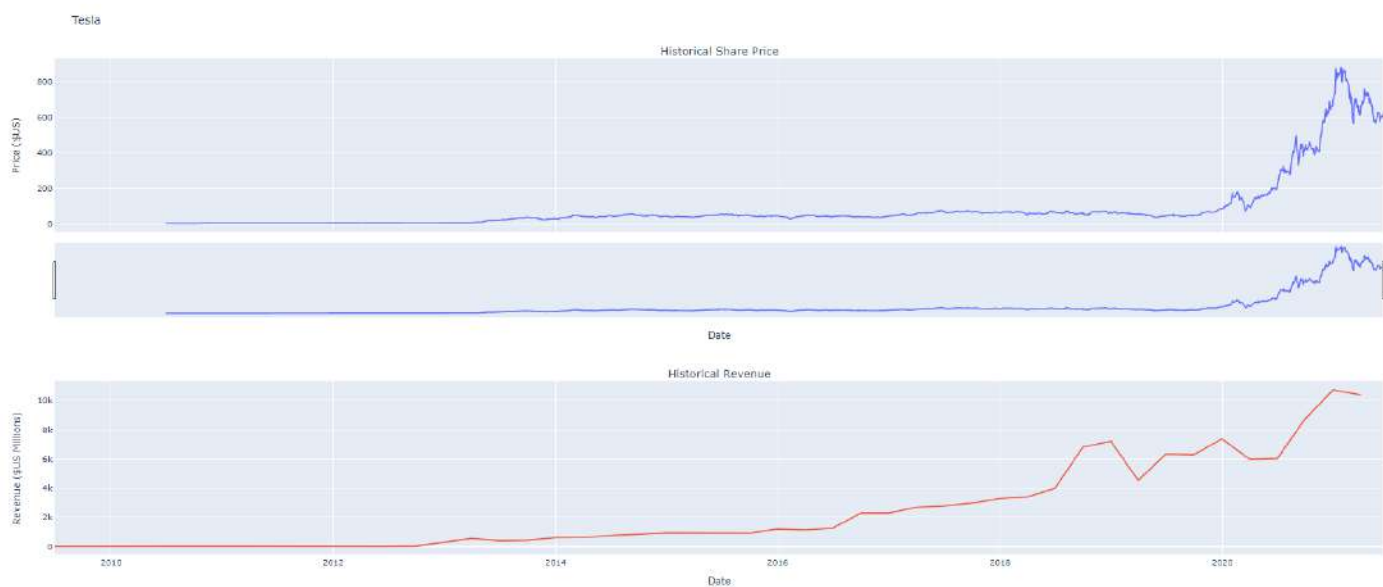
Display the last five rows of the `gme_revenue` dataframe using the `tail` function. Take a screenshot of the results.

```
In [43]: gme_revenue.tail()
```

```
out[43]:
```

	Date	Revenue
62	2006-01-31	1667
63	2005-10-31	534
64	2005-07-31	418
65	2005-04-30	475
66	2005-01-31	709

In [49]: `make_graph(tesla_data, tesla_revenue, "Tesla")`



Use the `make_graph` function to graph the GameStop Stock Data, also provide a title for the graph. The structure to call the `make_graph` function is `make_graph(gse_data, gse_revenue, 'GameStop')`. Note the graph will only show data upto June 2021.

In [45]: `make_graph(gse_data, gse_revenue, 'GameStop')`

