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`.

[7]:
```
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.

[8]:
```
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.

[9]:
```
tesla_data.reset_index(inplace=True)
tesla_data.head()
```

[9]:

	Date	Open	High	Low	Close	Volume	Dividends	Stock Splits
0	2010-06-29 00:00:00-04:00	1.266667	1.666667	1.169333	1.592667	281494500	0.0	0.0
1	2010-06-30 00:00:00-04:00	1.719333	2.028000	1.553333	1.588667	257806500	0.0	0.0
2	2010-07-01 00:00:00-04:00	1.666667	1.728000	1.351333	1.464000	123282000	0.0	0.0
3	2010-07-02 00:00:00-04:00	1.533333	1.540000	1.247333	1.280000	77097000	0.0	0.0
4	2010-07-06 00:00:00-04:00	1.333333	1.333333	1.055333	1.074000	103003500	0.0	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-SkillsNetwork/labs/project/revenue.htm Save the text of the response as a variable named `html_data`.

9]:
```
url = "https://cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud/IBMDeveloperSkillsNetwork-PY0220EN-SkillsNetwork/labs/project/revenu
html_data = requests.get(url).text
```

Parse the html data using `beautiful_soup` using parser i.e `html5lib` or `html.parser`.

0]:
```
soup = BeautifulSoup(html_data,"html.parser")
```

Using `BeautifulSoup` or the `read_html` function extract the table with `Tesla Revenue` and store it into a dataframe named `tesla_revenue`. The dataframe should have columns `Date` and `Revenue`.

*[21]:
```
tesla_revenue = pd.DataFrame(columns = ["Date","Revenue"])
tables = soup.find_all("table")
target_table = tables[0]
rows = target_table.find_all("tr")
for row in rows:
    cols = row.find_all("td")
    if len(cols) >= 2:
        date = cols[0].get_text(strip=True)
        revenue = cols[-1].get_text(strip=True)
        if date and revenue:
            tesla_revenue.loc[len(tesla_revenue)] = [date, revenue]
```

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

[22]:
```
tesla_revenue["Revenue"] = tesla_revenue['Revenue'].str.replace(',|\$',"",regex=True)
```

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

[23]:
```
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.

[24]:
```
tesla_revenue.tail()
```

[24]:

	Date	Revenue
8	2013	2013
9	2012	413
10	2011	204
11	2010	117
12	2009	112

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`.

[25]:
```
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.

[26]:
```
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.

[27]:
```
gme_data.reset_index(inplace=True)
gme_data.head()
```

[27]:

	Date	Open	High	Low	Close	Volume	Dividends	Stock Splits
0	2002-02-13 00:00:00-05:00	1.620129	1.693350	1.603296	1.691667	76216000	0.0	0.0
1	2002-02-14 00:00:00-05:00	1.712707	1.716074	1.670626	1.683250	11021600	0.0	0.0
2	2002-02-15 00:00:00-05:00	1.683250	1.687458	1.658002	1.674834	8389600	0.0	0.0
3	2002-02-19 00:00:00-05:00	1.666418	1.666418	1.578047	1.607504	7410400	0.0	0.0
4	2002-02-20 00:00:00-05:00	1.615920	1.662209	1.603296	1.662209	6892800	0.0	0.0

Question 4: Use Webscraping to Extract GME Revenue Data

Use the `requests` library to download the webpage https://cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud/IBMDeveloperSkillsNetwork-PY0220EN-SkillsNetwork/labs/project/stock.html. Save the text of the response as a variable named `html_data_2`.

[28]:
```
url = "https://cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud/IBMDeveloperSkillsNetwork-PY0220EN-SkillsNetwork/labs/project/stock
html_data_2 = requests.get(url).text
```

Parse the html data using `beautiful_soup` using parser i.e `html5lib` or `html.parser`.

[29]:
```
soup = BeautifulSoup(html_data_2,"html.parser")
```

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.

> **Note: Use the method similar to what you did in question 2.**

[30]:
```
gme_revenue = pd.DataFrame(columns = ["Date","Revenue"])
tables = soup.find_all("table")
target_table = tables[0]
rows = target_table.find_all("tr")
for row in rows:
    cols = row.find_all("td")
    if len(cols) >= 2:
        date = cols[0].get_text(strip=True)
        revenue = cols[-1].get_text(strip=True)
        if date and revenue:
            gme_revenue.loc[len(gme_revenue)] = [date, revenue]
```

[31]:
```
gme_revenue["Revenue"] = gme_revenue['Revenue'].str.replace(',|\$',"",regex=True)
```

[32]:
```
gme_revenue.dropna(inplace=True)

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

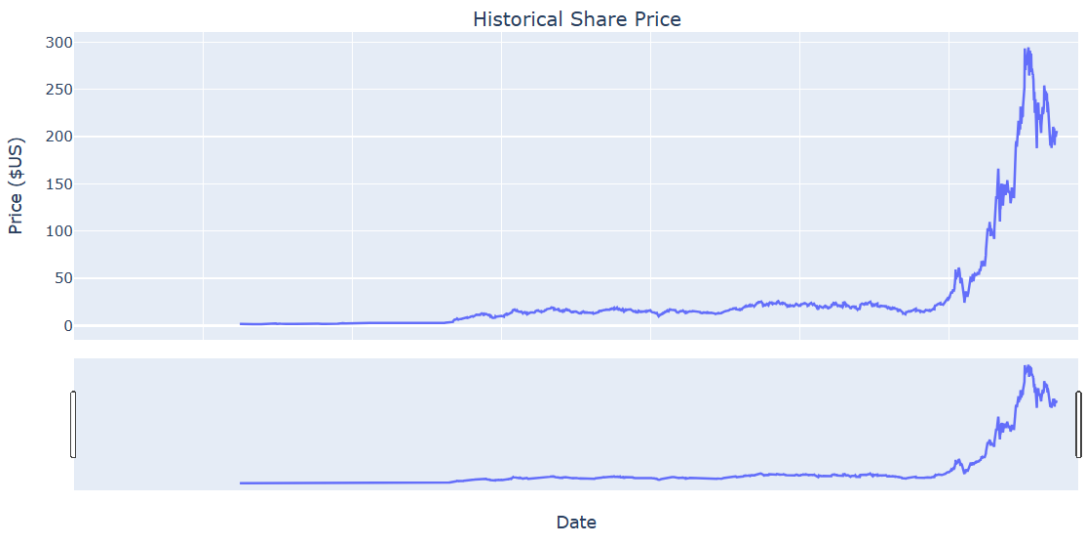
Display the last five rows of the `gme_revenue` dataframe using the `tail` function. Take a screenshot of the results.

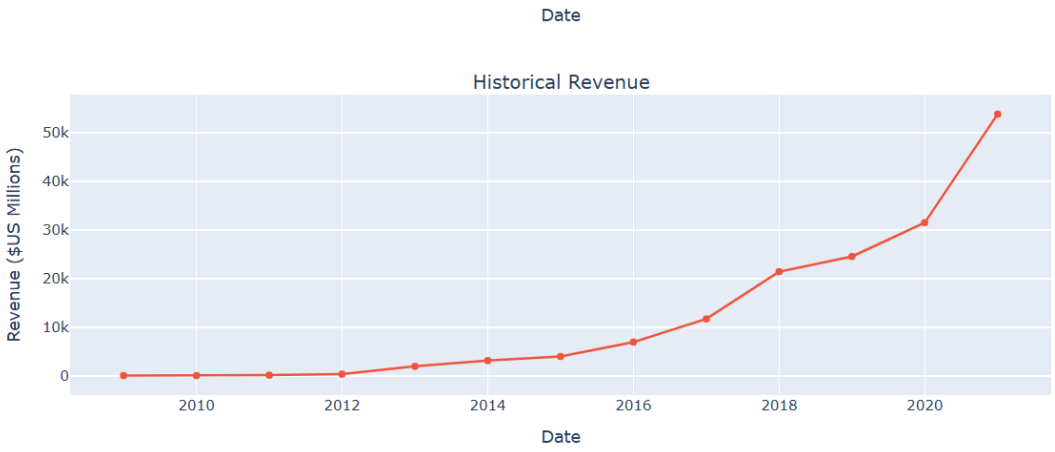
[33]:
```
gme_revenue.tail()
```

[33]:

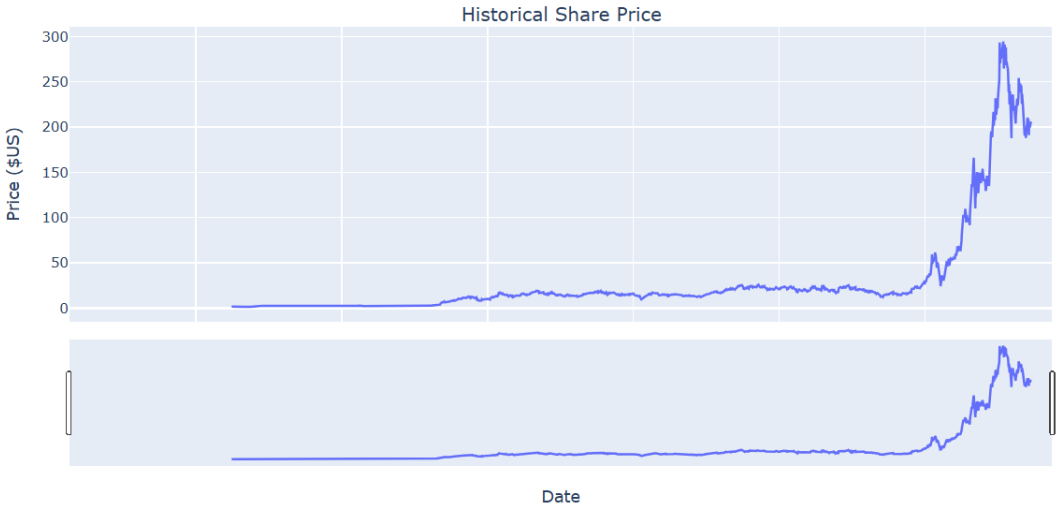
	Date	Revenue
11	2009	8806
12	2008	7094
13	2007	5319
14	2006	3092
15	2005	1843

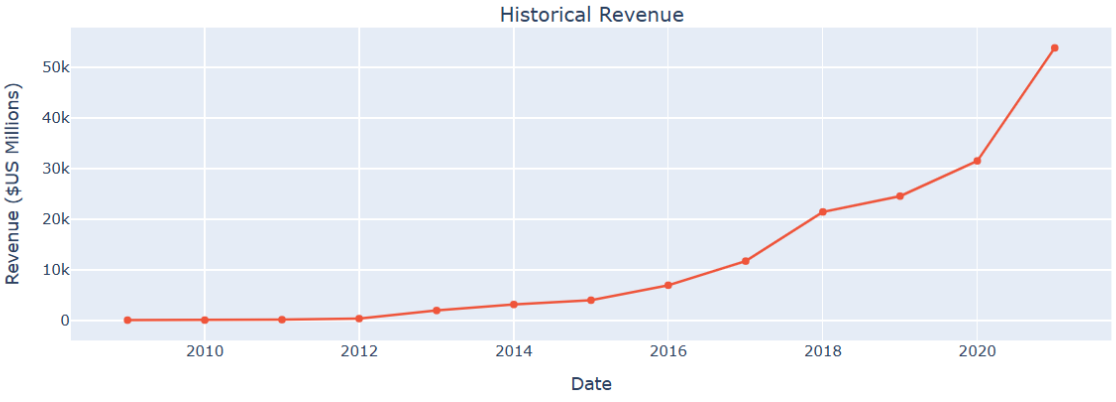
Tesla



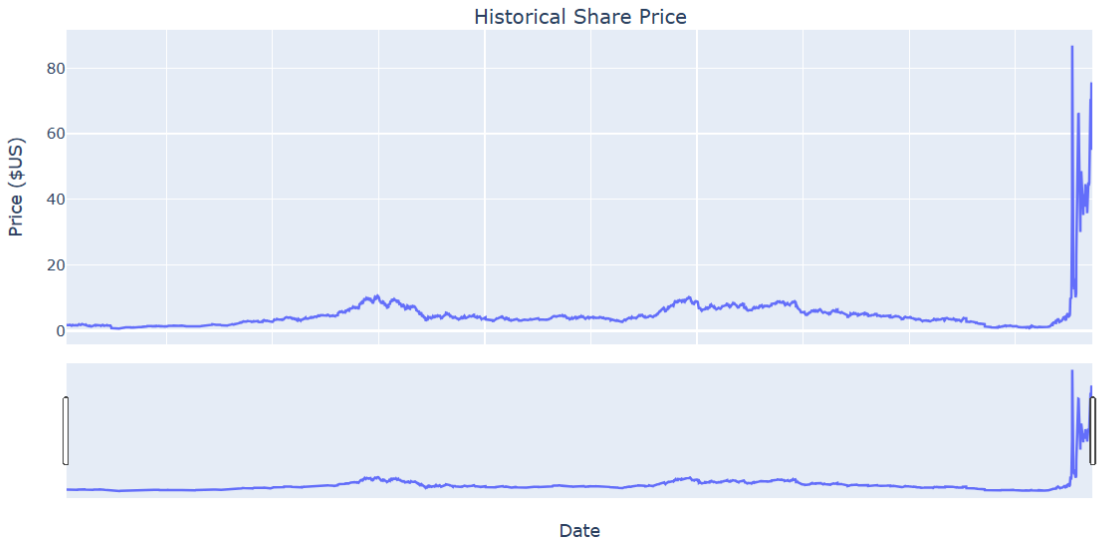

Date
Historical Revenue
Revenue ($US Millions)
50k
40k
30k
20k
10k
0
2010
2012
2014
2016
2018
2020
Date

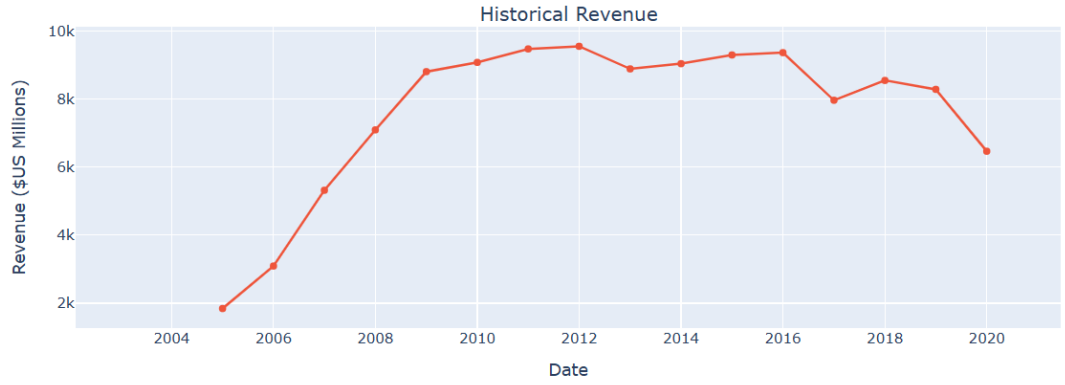
Tesla


Historical Share Price
Price ($US)
300
250
200
150
100
50
0
Date


Historical Revenue
Revenue ($US Millions)
50k
40k
30k
20k
10k
0
2010
2012
2014
2016
2018
2020
Date

Gamestop


Historical Share Price
Price ($US)
80
60
40
20
0
Date


Historical Revenue
Revenue ($US Millions)
10k
8k
6k
4k
2k
2004
2006
2008
2010
2012
2014
2016
2018
2020
Date