Project for TSLA Stock via Yahoo

First we install the necessary libraries

In [ ]:
```
!pip install yfinance
!pip install pandas
!pip install requests
!pip install bs4
!pip install html5lib
!pip install lxml
!pip install plotly
```

In [3]:
```
import yfinance as yf
import pandas as pd
import requests
from bs4 import BeautifulSoup
```

Question 1

In [4]:
```
tsla_url="https://finance.yahoo.com/quote/TSLA/?guccounter=1&guce_referrer=aHR0cHM6Ly93d
```

In [25]:
```
tsla_data= yf.Ticker("TSLA")

tsla_stock_data = yf.download("TSLA", period='max')

tsla_stock_data.head()
```

```
[**********************100%**********************]  1 of 1 completed
```

Out[25]:

Date	Open	High	Low	Close	Adj Close	Volume
2010-06-29	1.266667	1.666667	1.169333	1.592667	1.592667	281494500
2010-06-30	1.719333	2.028000	1.553333	1.588667	1.588667	257806500
2010-07-01	1.666667	1.728000	1.351333	1.464000	1.464000	123282000
2010-07-02	1.533333	1.540000	1.247333	1.280000	1.280000	77097000
2010-07-06	1.333333	1.333333	1.055333	1.074000	1.074000	103003500

Question 2

In [35]:
```
url = "https://www.macrotrends.net/stocks/charts/TSLA/tesla/revenue"
html_data  = requests.get(url).text
soup = BeautifulSoup(html_data,"html5lib")

tsla_revenue = pd.DataFrame(columns=['Date', 'Revenue'])

for table in soup.find_all('table'):

    if ('Tesla Quarterly Revenue' in table.find('th').text):
        rows = table.find_all('tr')

        for row in rows:
```

```
            col = row.find_all('td')

            if col != []:
                date = col[0].text
                revenue = col[1].text.replace(',','').replace('$','')

                tsla_revenue = tesla_revenue.append({"Date":date, "Revenue":revenue}, ig


tsla_revenue["Revenue"] = tsla_revenue['Revenue'].str.replace(',|\$',"")
tsla_revenue.dropna(inplace=True)

tsla_revenue = tsla_revenue[tsla_revenue['Revenue'] != ""]
tsla_revenue.tail()
```

```
C:\Users\user1\AppData\Local\Temp\ipykernel_6260\774839779.py:22: FutureWarning: The def
ault value of regex will change from True to False in a future version.
  tsla_revenue["Revenue"] = tsla_revenue['Revenue'].str.replace(',|\$',"")
```

Out[35]:

	Date	Revenue

Question 3

In [15]:
```
gamestop_ticker = 'GME'

gamestop_stock_data = yf.download(gamestop_ticker, start='2010-01-01', end='2023-12-31')

gamestop_stock_data.head()
```

```
[**********************100%**********************]  1 of 1 completed
```

Out[15]:

Date	Open	High	Low	Close	Adj Close	Volume
2010-01-04	5.5175	5.7375	5.5000	5.7250	3.854643	26702800
2010-01-05	5.7275	5.9350	5.7250	5.8800	3.959005	21269600
2010-01-06	5.8650	6.0250	5.8050	6.0075	4.044851	21471200
2010-01-07	5.0025	5.2925	4.8550	5.1150	3.443930	164761200
2010-01-08	5.1600	5.3075	5.0575	5.0725	3.415315	47872400

Question 4

In [40]:
```
url = "https://www.macrotrends.net/stocks/charts/GME/gamestop/revenue"  # Update this UR

html_data = requests.get(url).text
soup = BeautifulSoup(html_data, "html5lib")


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


for table in soup.find_all('table'):
    header = table.find('th')
    if header and 'GameStop Quarterly Revenue' in header.text:
        rows = table.find_all('tr')
        for row in rows:
            cols = row.find_all('td')
            if cols:
```

```
                date = cols[0].text.strip()
                revenue = cols[1].text.strip().replace(',', '').replace('$', '')


                gme_revenue = gme_revenue.append({"Date": date, "Revenue": revenue}, ign


gme_revenue['Revenue'] = gme_revenue['Revenue'].str.replace(r'[\$,]', '', regex=True)
gme_revenue['Revenue'] = pd.to_numeric(gme_revenue['Revenue'], errors='coerce')
gme_revenue.dropna(inplace=True)


print("GameStop Revenue Data:")
print(gme_revenue.tail())
```

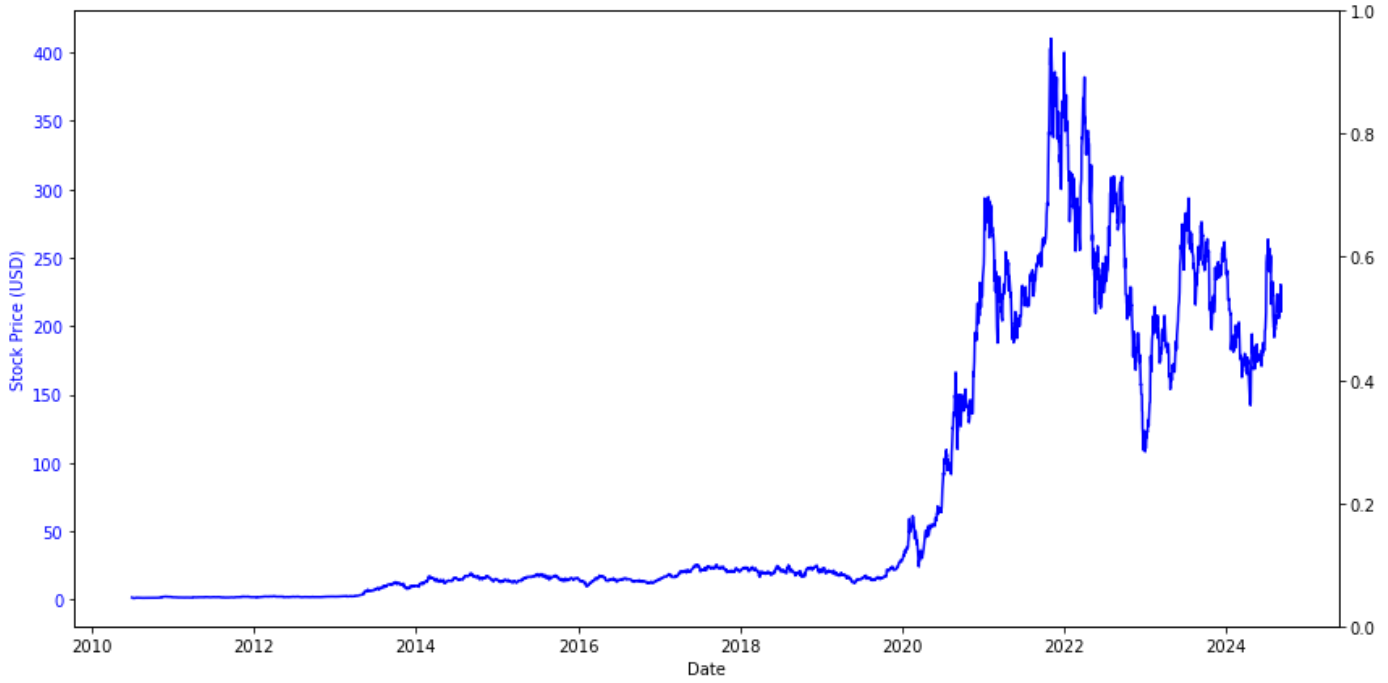
```
GameStop Revenue Data:
Empty DataFrame
Columns: [Date, Revenue]
Index: []
```

Question 5

In [36]:

```
import matplotlib.pyplot as plt

fig, ax1 = plt.subplots(figsize=(14,7))

ax1.plot(tsla_stock_data.index, tsla_stock_data['Close'], color='blue', label='Tesla Sto
ax1.set_xlabel('Date')
ax1.set_ylabel('Stock Price (USD)', color='blue')
ax1.tick_params(axis='y', labelcolor='blue')

ax2 = ax1.twinx()
ax2.plot(pd.to_datetime(tsla_revenue_df['Date']), tsla_revenue_df['Revenue'], color='gre
ax2.set_ylabel('Revenue (USD)', color='green')
ax2.tick_params(axis='y', labelcolor='green')

plt.title('Tesla Stock Price and Revenue')
plt.show()
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Input In [36], in <cell line: 11>()
      8 ax1.tick_params(axis='y', labelcolor='blue')
     10 ax2 = ax1.twinx()
---> 11 ax2.plot(pd.to_datetime(tsla_revenue_df['Date']), tsla_revenue_df['Revenue'], co
lor='green', label='Tesla Revenue')
     12 ax2.set_ylabel('Revenue (USD)', color='green')
     13 ax2.tick_params(axis='y', labelcolor='green')

NameError: name 'tsla_revenue_df' is not defined
```



Question 6

In [39]:

```
gme_data = yf.Ticker("GME")
gme_stock_data = gme_data.history(start='2010-01-01', end='2023-12-31')

url = "https://www.macrotrends.net/stocks/charts/GME/gamestop/revenue"
html_data = requests.get(url).text
soup = BeautifulSoup(html_data, "html5lib")

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

for table in soup.find_all('table'):
    header = table.find('th')
    if header and 'GameStop Quarterly Revenue' in header.text:
        rows = table.find_all('tr')
        for row in rows:
            cols = row.find_all('td')
            if cols:
                date = cols[0].text.strip()
                revenue = cols[1].text.strip().replace(',', '').replace('$', '')
                gme_revenue = gme_revenue.append({"Date": date, "Revenue": revenue}, ign

gme_revenue['Revenue'] = gme_revenue['Revenue'].str.replace(r'[\$,]', '', regex=True)
gme_revenue['Revenue'] = pd.to_numeric(gme_revenue['Revenue'], errors='coerce')
gme_revenue.dropna(inplace=True)
gme_revenue['Date'] = pd.to_datetime(gme_revenue['Date'])

fig, ax1 = plt.subplots(figsize=(14, 7))

ax1.plot(gme_stock_data.index, gme_stock_data['Close'], color='blue', label='GameStop St
ax1.set_xlabel('Date')
ax1.set_ylabel('Stock Price (USD)', color='blue')
ax1.tick_params(axis='y', labelcolor='blue')

ax2 = ax1.twinx()
ax2.plot(gme_revenue['Date'], gme_revenue['Revenue'], color='green', label='GameStop Rev
ax2.set_ylabel('Revenue (USD)', color='green')
ax2.tick_params(axis='y', labelcolor='green')

plt.title('GameStop Stock Price and Revenue')
```

```
fig.tight_layout()
plt.show()
```