Final assignment

March 14, 2024

[ ]:
```
!pip install yfinance
#!pip install pandas
#!pip install requests
!pip install bs4
#!pip install plotly
```

[ ]:
```
import yfinance as yf
import pandas as pd
import requests
from bs4 import BeautifulSoup
import plotly.graph_objects as go
from plotly.subplots import make_subplots
```

[7]:
```
def make_graph(stock_data, revenue_data, stock):
    fig = make_subplots(rows=2, cols=1, shared_xaxis=True, subplot_titles=
    ("Historical Share price","Historical Revenue"),vertical_spacing = .3)
    fig.add_trace(go.Scatter(x=pd.to_datetime(stock_date.Date,
    infer_datetime_format=True),y=stock_data.Close.astype("float"),
    name="Share Price"),row=1,col=1)
    fig.add_trace(go.Scatter(x=pd.to_datetime(revenue_date.Date,
    infer_datetime_format=True),y=revenue_data.Revenue.astype("float"),
    name="Revenue"),row=2,col=1)
    fig.update_xaxis(title_text="Date", row=1, col=1)
    fig.update_xaxis(title_text="Date", row=2, col=1)
    fig.update_yaxis(title_text="Price ($US)", row=1, col=1)
    fig.update_yaxis(title_text="Revenue ($US Millions)", row=2, col=1)
    fig.update_layout(showlegend=False,
    height=900,
    title=stock,
    xaxis_rangeslider_visible=True)
    fig.show()
```

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

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

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

[ ]:
```
url = 'https://www.macrotrends.net/stock/charts/TSLA/tesla/revenue'html_data =␣
↪requests.get(url).text
```

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

[ ]:
```
tesla_revenue = pd.DataFrame(columns=['Date','Revenue'])

for table n 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')
            8
            if col! = []:
                date = col[0].text
                revenue = col[1].text.replace(',','').replace('$','')

                tesla_revenue = tesla_revenue.append({"Date":date, "Revenue":
↪revenue},ignore_index=true)
```

[ ]:
```
tesla_revenue
```

[ ]:
```
tesla_revenue = tesla_revenue[tesla_revenue['Revenue'].astype(bool)]
```

[ ]:
```
tesla_revenue = tail()
```

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

[ ]:
```
gme_data = gme.history(period='max')
```

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

[ ]:
```
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('GameStop 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[1].text
            revenue = col[1].text.replace(',','').replace('$','')

            gme_revenue = gme_revenue.append({"Date":date, "Revenue":
↪revenue},ignore_index=True)
```

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

[ ]:
```
make_graph(tesla_data[['Date','Close']], tesla_revenue, 'Tesla')
```

[ ]:
```
make_graph(gme_data[['Date','Close]], g
```