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

In [ ]:
```
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
```

In [ ]:
```
def make_graph(stock_data, revenue_data, stock):
    fig = make_subplots(rows=2, cols=1, shared_xaxes=True, subplot_titles=("Histo
    fig.add_trace(go.Scatter(x=pd.to_datetime(stock_data.Date, infer_datetime_for
    fig.add_trace(go.Scatter(x=pd.to_datetime(revenue_data.Date, infer_datetime_f
    fig.update_xaxes(title_text="Date", row=1, col=1)
    fig.update_xaxes(title_text="Date", row=2, col=1)
    fig.update_yaxes(title_text="Price ($US)", row=1, col=1)
    fig.update_yaxes(title_text="Revenue ($US Millions)", row=2, col=1)
    fig.update_layout(showlegend=False,
    height=900,
    title=stock,
    xaxis_rangeslider_visible=True)
    fig.show()
```

Question 1: Use yfinance to Extract Stock Data

In [5]:
```
tesla = yf.Ticker('TSLA')
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
<ipython-input-5-94bed0346a3d> in <module>
----> 1 tesla = yf.Ticker('TSLA')

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

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

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

Question 2: Use Webscraping to Extract Tesla

Revenue Data

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

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

In [ ]:
```
tesla_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('$','')

                tesla_revenue = tesla_revenue.append({"Date":date, "Revenue":reve
```

In [ ]:
```
tesla_revenue
```

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

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

Question 3: Use yfinance to Extract Stock Data

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

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

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

Question 4: Use Webscraping to Extract GME Revenue Data

In [ ]:
```
url = 'https://www.macrotrends.net/stocks/charts/GME/gamestop/revenue'
html_data = requests.get(url).text
```

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

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

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

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

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

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

Question 5: Plot Tesla Stock Graph

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

Question 6: Plot GameStop Stock Graph

In [ ]:
```
make_graph(gme_data[['Date','Close']], gme_revenue, 'GameStop')
```