

2021 | By: Sushant

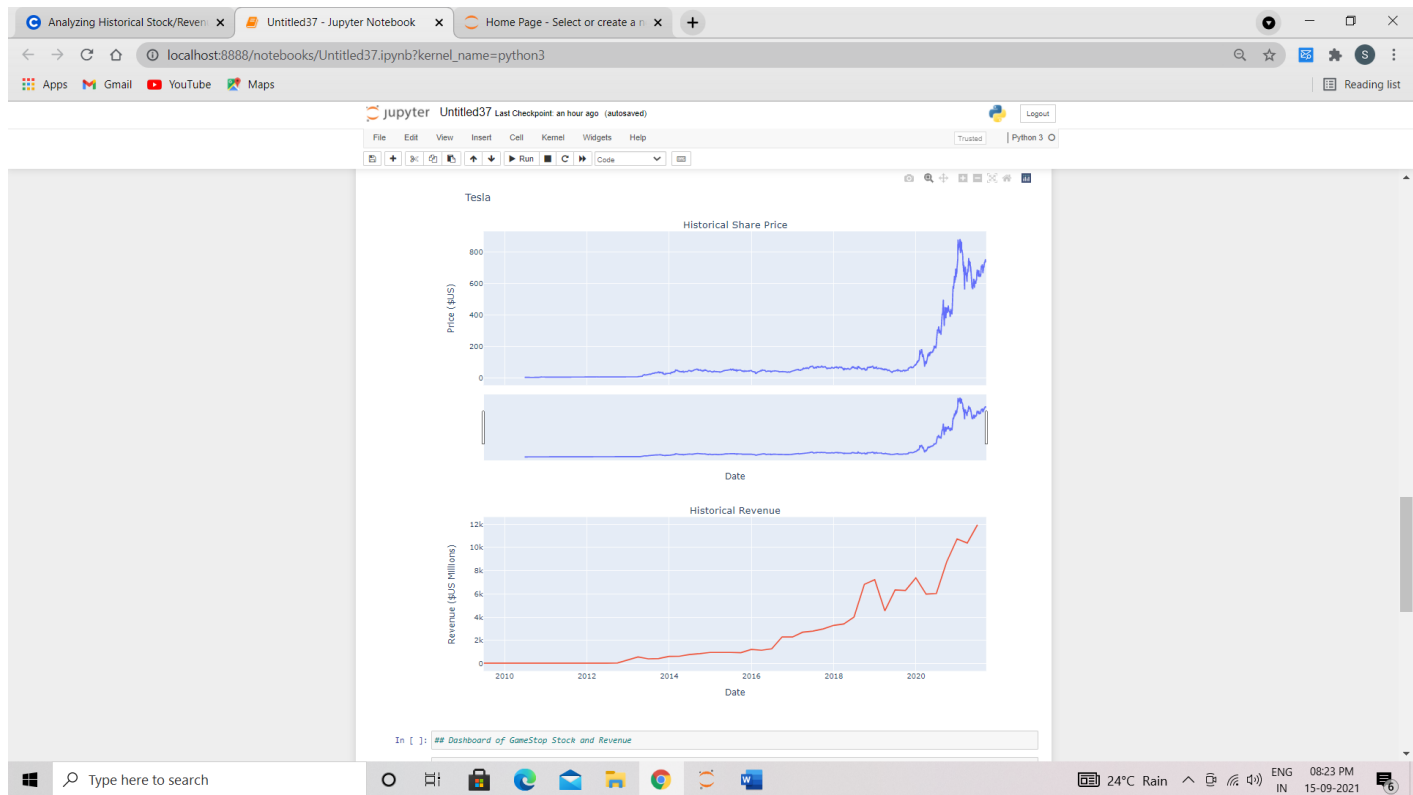


# Review the growth

Stock price v/s revenue earned

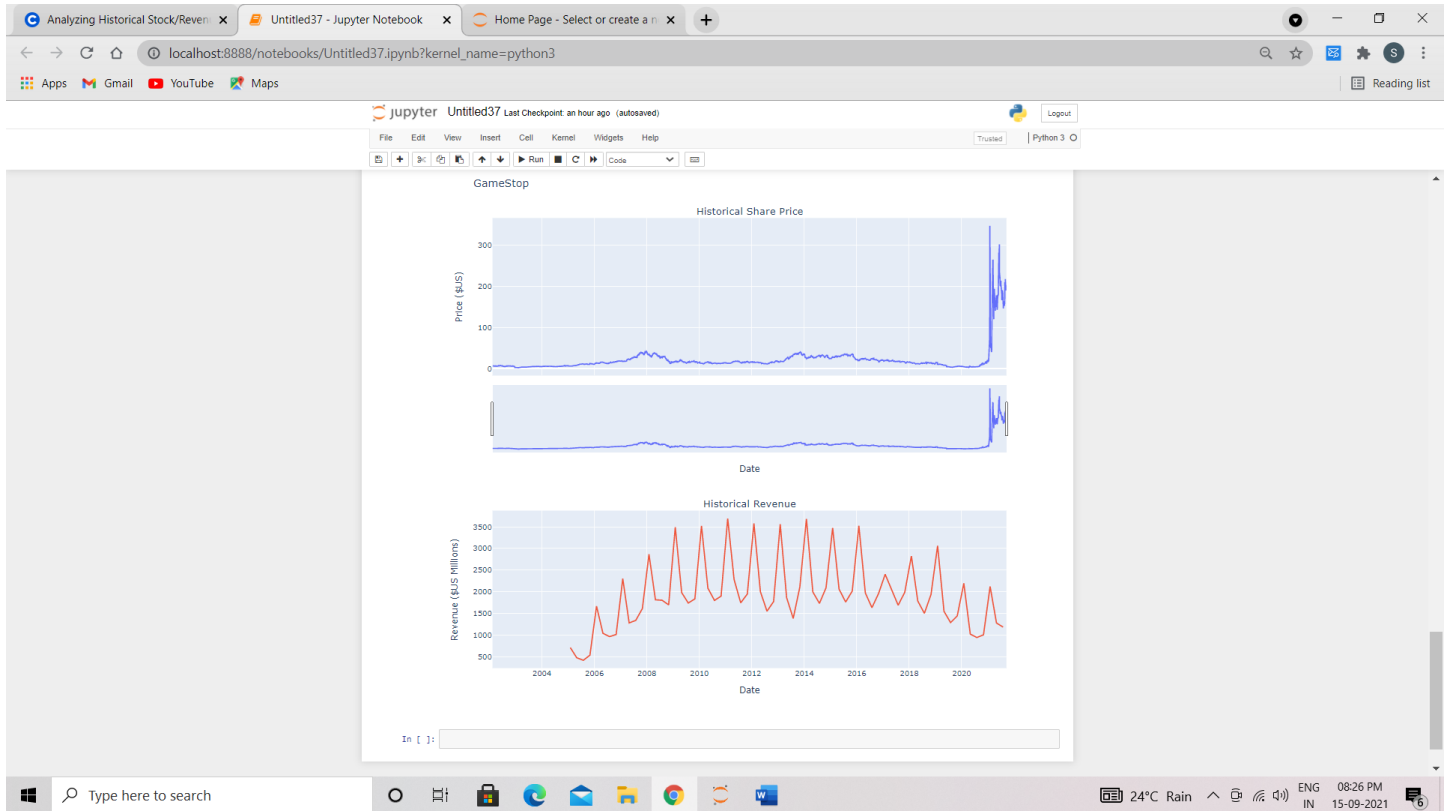
# Hick of company

## Tesla



As its clearly visible that growth of the company took elevation in the past 4 year . so the stock price even .

# Gamestop



As it visible that revenue for the company is not constant. Its always fluctuating. Stock price have started to grow at the last of the year.

# Method :

To extract data of the stock I used the python library **yfinance** and for the revenue I used the **BEAUTIFULSOUP** of the **bs4** library. After then . plotted the final graph for the comparison of the stock price and revenue in the graphical way.

The screenshot displays a Jupyter Notebook titled 'Untitled37' running on a local host. The notebook contains several code cells for data extraction and visualization. The first cell imports the necessary libraries: `yfinance` and `pandas`. The second cell, labeled '## Extracting Tesla Stock Data Using yfinance', uses `yf.Ticker("TSLA")` to fetch Tesla's stock data. The third cell, labeled '## Tesla Revenue Data Using Webscraping', uses `requests` and `BeautifulSoup` to scrape revenue data from a website. The output of the first cell shows a table of Tesla stock data with columns: level\_0, index, Date, Open, High, Low, Close, Volume, Dividends, and Stock Splits. The output of the second cell shows the scraped HTML data for Tesla's revenue.

```
In [1]: import yfinance as yf
import pandas as pd

In [ ]: ## Extracting Tesla Stock Data Using yfinance

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

In [6]: tesla_data = tesla.history(period="max")

In [20]: tesla_data.reset_index(inplace=True)
tesla_data.head()
```

level_0	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	6.084	4.880	4.768	85925500	0	0.0
2	2	2010-07-01	5.000	5.184	4.054	4.392	41064000	0	0.0
3	3	2010-07-02	4.800	4.820	3.742	3.840	29869000	0	0.0
4	4	2010-07-06	4.000	4.000	3.195	3.222	34334500	0	0.0

```
In [ ]:

In [ ]:

In [ ]: ## Tesla Revenue Data Using Webscraping

In [9]: import requests
from bs4 import BeautifulSoup
import plotly.graph_objects as go
from plotly.subplots import make_subplots

In [10]: tesla_url = "https://www.macrotrends.net/stocks/charts/TSLA/tesla/revenue"
tesla_html_data = requests.get(tesla_url).text

In [11]: tesla_soup = BeautifulSoup(tesla_html_data, "html5lib")

In [13]: tesla_tables = tesla_soup.find_all("table")
for index,table in enumerate(tesla_tables):
    if ("Tesla Quarterly Revenue" in str(table)):
        tesla_table_index = index
        tesla_revenue = pd.DataFrame(columns=["Date", "Revenue"])
        for row in tesla_tables[tesla_table_index].tbody.find_all("tr"):
            col = row.find_all("td")
```

jupyter Untitled37 Last Checkpoint 2 hours ago (autosaved) Logout

File Edit View Insert Cell Kernel Widgets Help Trusted Python 3

In [13]:

```
tesla_tables = tesla_soup.find_all('table')
for index,table in enumerate(tesla_tables):
    if ("Tesla Quarterly Revenue" in str(table)):
        tesla_table_index = index
        tesla_revenue = pd.DataFrame(columns=["Date", "Revenue"])
        for row in tesla_tables[tesla_table_index].tbody.find_all("tr"):
            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": revenue}, ignore_index=True)
        #
tesla_revenue = tesla_revenue[tesla_revenue["Revenue"] != ""]
tesla_revenue.tail()
```

Out[13]:

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

In [ ]:

In [ ]: ## GameStop Stock Data Using yfinance

In [14]:

```
gamestop = yf.Ticker("GME")
gme_data = gamestop.history(period="max")
gme_data.reset_index(inplace=True)
gme_data.head()
```

Out[14]:

	Date	Open	High	Low	Close	Volume	Dividends	Stock Splits
0	2002-02-13	0.480513	0.773390	0.413183	0.780866	19054000	0.0	0.0
1	2002-02-14	0.850831	0.864296	0.882806	0.733003	2756400	0.0	0.0
2	2002-02-15	0.733001	0.749833	0.832006	0.860236	2097400	0.0	0.0
3	2002-02-19	0.695671	0.695671	0.312189	0.430017	1852800	0.0	0.0
4	2002-02-20	0.453681	0.648838	0.413183	0.648838	1723200	0.0	0.0

In [ ]:

In [ ]: ## GameStop Revenue Data Using Web scraping

Analizing Historical Stock/Revenue x Untitled37 - Jupyter Notebook x Home Page - Select or create a n x +

localhost:8888/notebooks/Untitled37.ipynb?kernel\_name=python3

Apps Gmail YouTube Maps

jupyter Untitled37 Last Checkpoint 2 hours ago (autosaved)

File Edit View Insert Cell Kernel Widgets Help

Trusted Python 3

```
In [ ]: ## GameStop Revenue Data Using Webscraping

In [21]: gme_url = "https://www.macrotrends.net/stocks/charts/GME/gamestop/revenue"
gme_html_data = requests.get(gme_url).text
gme_soup = BeautifulSoup(gme_html_data, "html5lib")
gme_tables = gme_soup.find_all('table')

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

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

for row in gme_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)
gme_revenue.tail()
```

Out[21]:

	Date	Revenue
62	2006-01-31	1987
63	2006-10-31	534
64	2006-07-31	418
65	2006-04-30	475
66	2006-01-31	709

```
In [16]: def make_graph(stock_data, revenue_data, stock):
fig = make_subplots(rows=2, cols=1, shared_xaxes=True, subplot_titles=("Historical Share Price", "Historical Revenue"), vert
fig.add_trace(go.Scatter(x=pd.to_datetime(stock_data.Date, infer_datetime_format=True), y=stock_data.Close.astype("float"), r
fig.add_trace(go.Scatter(x=pd.to_datetime(revenue_data.Date, infer_datetime_format=True), y=revenue_data.Revenue.astype("float"), r
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_rangelslider_visible=True)
fig.show()

In [ ]: ## Dashboard of Tesla Stock and Revenue

In [17]: make_graph(tesla_data, tesla_revenue, 'Tesla')
```

Type here to search

24°C Rain 08:35 PM 15-09-2021

Reference :  
Coursera

