Project 3: Finance Data Visualizations of the Query Results

by Sofia Shur

In [187…
```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
```

In [188…
```
import seaborn as sns
```

In [189…
```
data = pd.read_csv("results.csv.csv")
```

In [190…
```
data.sort_values("Hour", inplace=True)
```

In [191…
```
data.sort_values('Hour', ascending = False)
```

Out[191…

	Company	High	Hour
79	TTD	52.50	16
63	SNAP	22.47	16
7	BYND	24.67	16
15	DDOG	93.93	16
23	FB	196.23	16
...	...	...	...
56	SNAP	29.54	9
8	DDOG	123.34	9
16	FB	210.73	9
64	SQ	103.07	9
0	BYND	37.80	9

80 rows × 3 columns

1) Highest Stock Price at the First Trading Hour (or Any Hour) (A Bar Chart: Each bar refers to a company)

In [192…
```
# selecting rows based on condition
second_hour = data[(data['Hour'] > 9) & (data['Hour'] < 11)]
```

In [193…

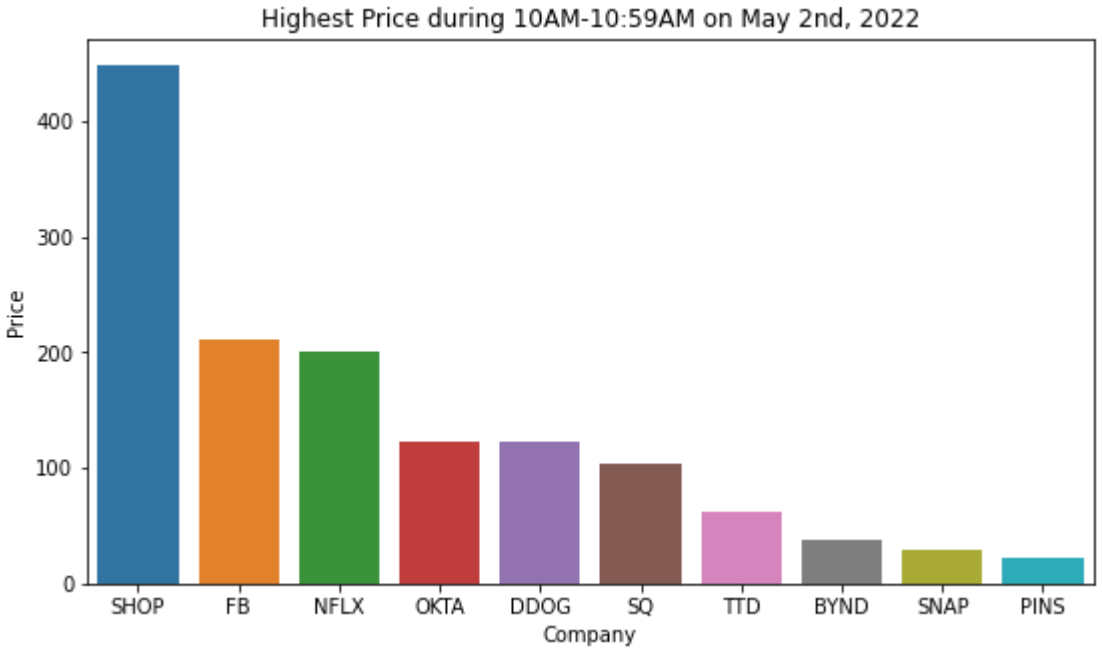
```
second_hour.sort_values('High', ascending = False)
```

Out[193…

	Company	High	Hour
49	SHOP	448.42	10
17	FB	210.86	10
25	NFLX	200.21	10
33	OKTA	123.32	10
9	DDOG	122.58	10
65	SQ	103.28	10
73	TTD	61.35	10
1	BYND	37.99	10
57	SNAP	29.44	10
41	PINS	21.36	10

In [195…

```
plt.figure(figsize=(9, 5))
sns.barplot(x='Company',
            y="High",
            data=second_hour,
            order=second_hour.sort_values('High', ascending = False).Company)
#setting labels
plt.title("Highest Price during 10AM-10:59AM on May 2nd, 2022")
plt.xlabel("Company")
plt.ylabel("Price")
plt.show()
```



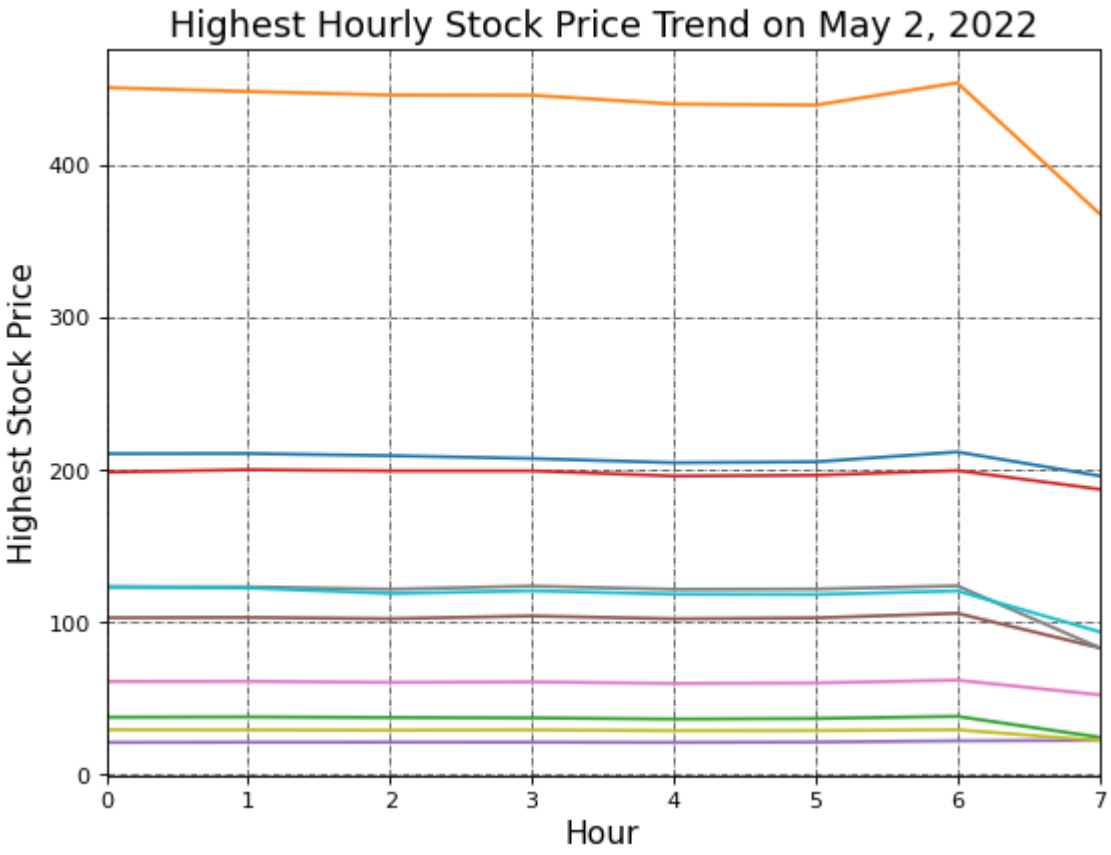
2) Highest Hourly Stock Price Trend (A Line Chart: Each line refers to a company)

In [196…
```
from matplotlib.pyplot import figure

figure(figsize=(8, 6), dpi=80)

tickers = ['FB', 'SHOP', 'BYND', 'NFLX', 'PINS', 'SQ', 'TTD', 'OKTA', 'SNAP', 'DDOG']
for a in tickers:
    plt.plot(data[data['Company'] == a]['High'].values)

plt.xlim(0,7)
plt.xlabel("Hour", fontsize=14)
plt.ylabel("Highest Stock Price", fontsize=14)
plt.title("Highest Hourly Stock Price Trend on May 2, 2022", fontsize=16)
# Plot the grid lines
plt.grid(which="major", color='k', linestyle='-.', linewidth=0.5)
plt.show()
```



4) Average Highest Hourly Stock Price (A Bar Chart: Each bar refers to a company)

In [198…
```
avg_df = data.groupby('Company').mean()['High'].to_frame()
```

In [199…
```
avg_df.sort_values('High', ascending = False)
```

Out[199…

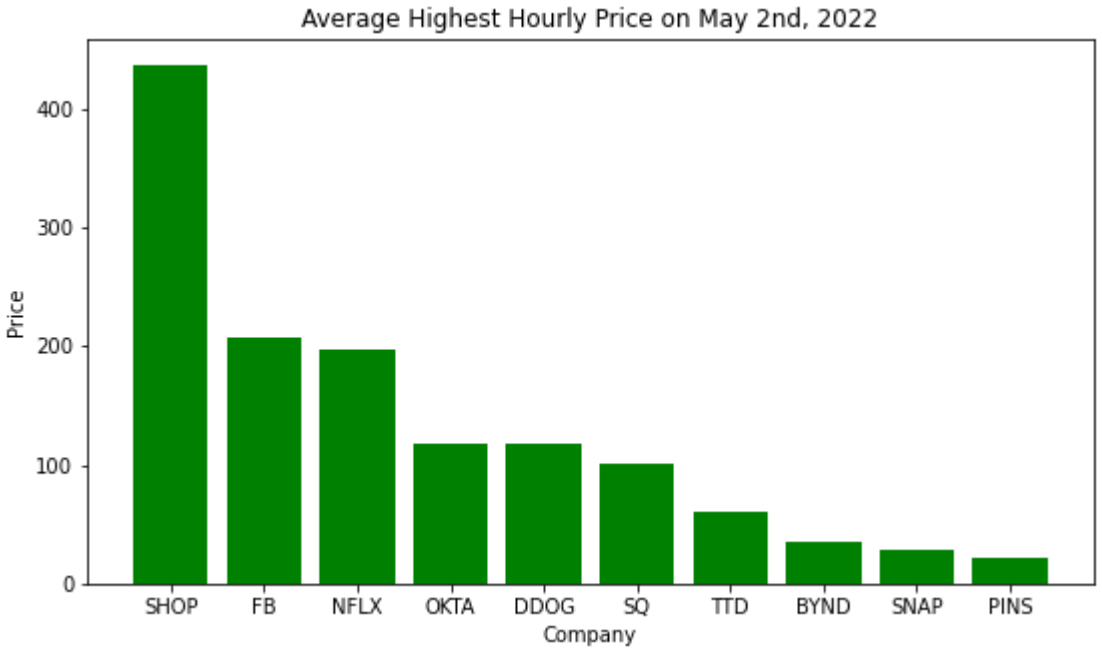
Company	High
SHOP	436.73250

Company	High
FB	207.11250
NFLX	197.18625
OKTA	117.92125
DDOG	117.13000
SQ	100.96500
TTD	59.87875
BYND	35.90375
SNAP	28.45625
PINS	21.62250

In [200…

```
plt.figure(figsize=(9, 5))
df_sorted = avg_df.sort_values('High', ascending = False)
plt.bar(df_sorted.index, df_sorted.High, data=df_sorted, color= 'green')
plt.title("Average Highest Hourly Price on May 2nd, 2022")

plt.xlabel("Company")
plt.ylabel("Price")
plt.show()
```



In [ ]: