Data Visualizations

In [1]:
```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt

pd.options.mode.chained_assignment = None
```

In [2]:
```
df = pd.read_csv('results.csv')
df
```

Out[2]:

	Company	High	Hour	Datetime
0	BYND	37.80	9	2022-05-02 09:55:00-04:00
1	BYND	37.99	10	2022-05-02 10:30:00-04:00
2	BYND	37.59	11	2022-05-02 11:30:00-04:00
3	BYND	37.33	12	2022-05-02 12:20:00-04:00
4	BYND	36.57	13	2022-05-02 13:05:00-04:00
...	...	...	...	...
80	TTD	59.94	13	2022-05-02 13:00:00-04:00
81	TTD	59.94	13	2022-05-02 13:10:00-04:00
82	TTD	60.28	14	2022-05-02 14:50:00-04:00
83	TTD	62.12	15	2022-05-02 15:55:00-04:00
84	TTD	52.64	16	2022-05-20 16:00:00-04:00

85 rows × 4 columns

Highest Stock Price at the First Trading Hour (or Any Hour)

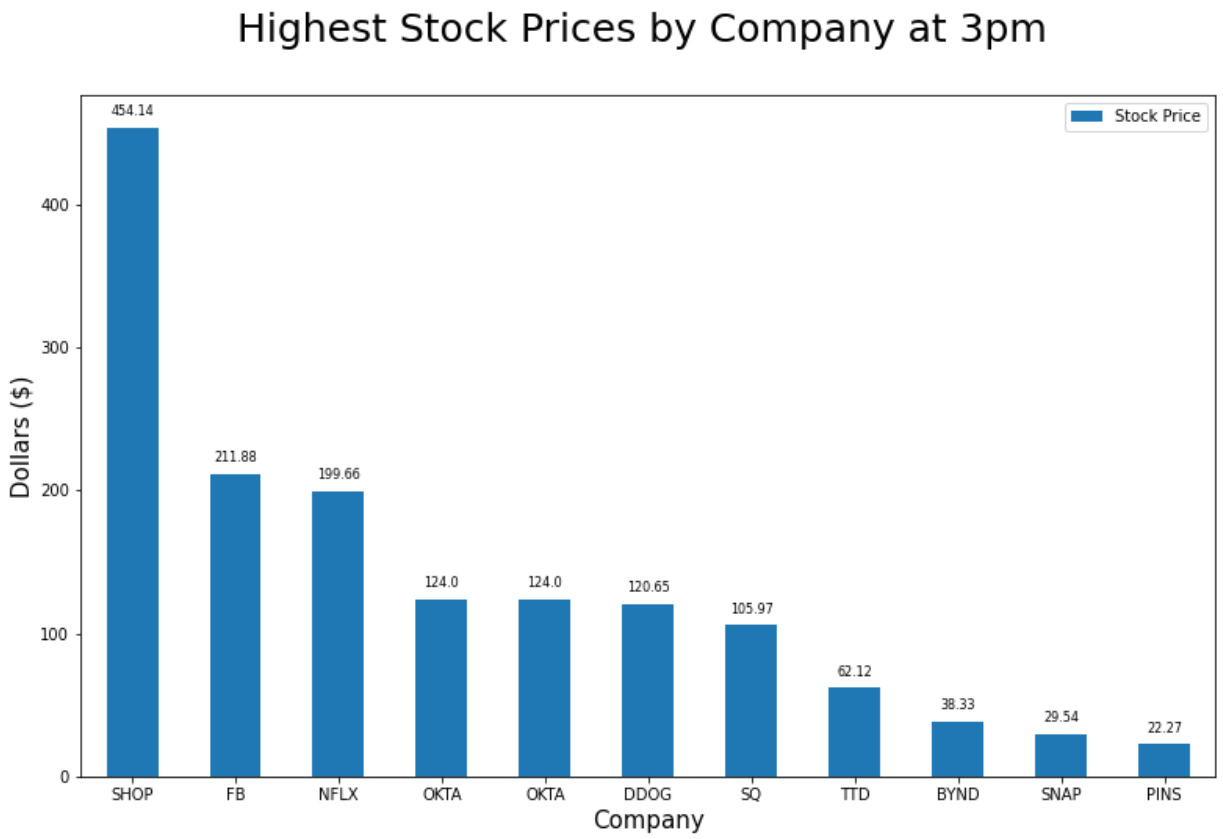
For this visualization I look at the highest stock prices of companies at 3pm.

In [3]:
```
highest_at3 = df[df.Hour == 15]
highest_at3.drop(columns=["Hour","Datetime"], inplace=True)
highest_at3.set_index('Company', inplace=True)
highest_at3 = highest_at3.sort_values('High', ascending=False)
highest_at3.rename(columns={"High":"Stock Price"}, inplace=True)

ax = highest_at3.plot(kind='bar', figsize=(13,8))
plt.title("Highest Stock Prices by Company at 3pm \n", fontsize=25)
plt.xlabel("Company", size=15)
plt.xticks(rotation=0)
plt.ylabel("Dollars ($)", size=15)

for p in ax.patches:
    ax.annotate(p.get_height(), (p.get_x() + p.get_width() / 2., p.get_height()),
                ha='center', va='center', xytext=(0, 10), textcoords='offset poir
                fontsize=8)

plt.show()
```



Highest Hourly Stock Price Trend

In [4]:
```
df_line = df[['Company','High','Hour']]
df_line = df_line.groupby(['Hour', 'Company']).last()
```

In [5]:
```
ax = df_line.unstack(level=1).plot(kind='line', subplots=True,
                                   rot=0, figsize=(15,10), layout=(5,2))
plt.show()
```