Sophia Newman 12/18/2021

STA9760 Project 3

results.csv visuals

In [55]:
```
# import libraries
import pandas as pd
import numpy
import matplotlib.pyplot as plt
import seaborn as sns
```

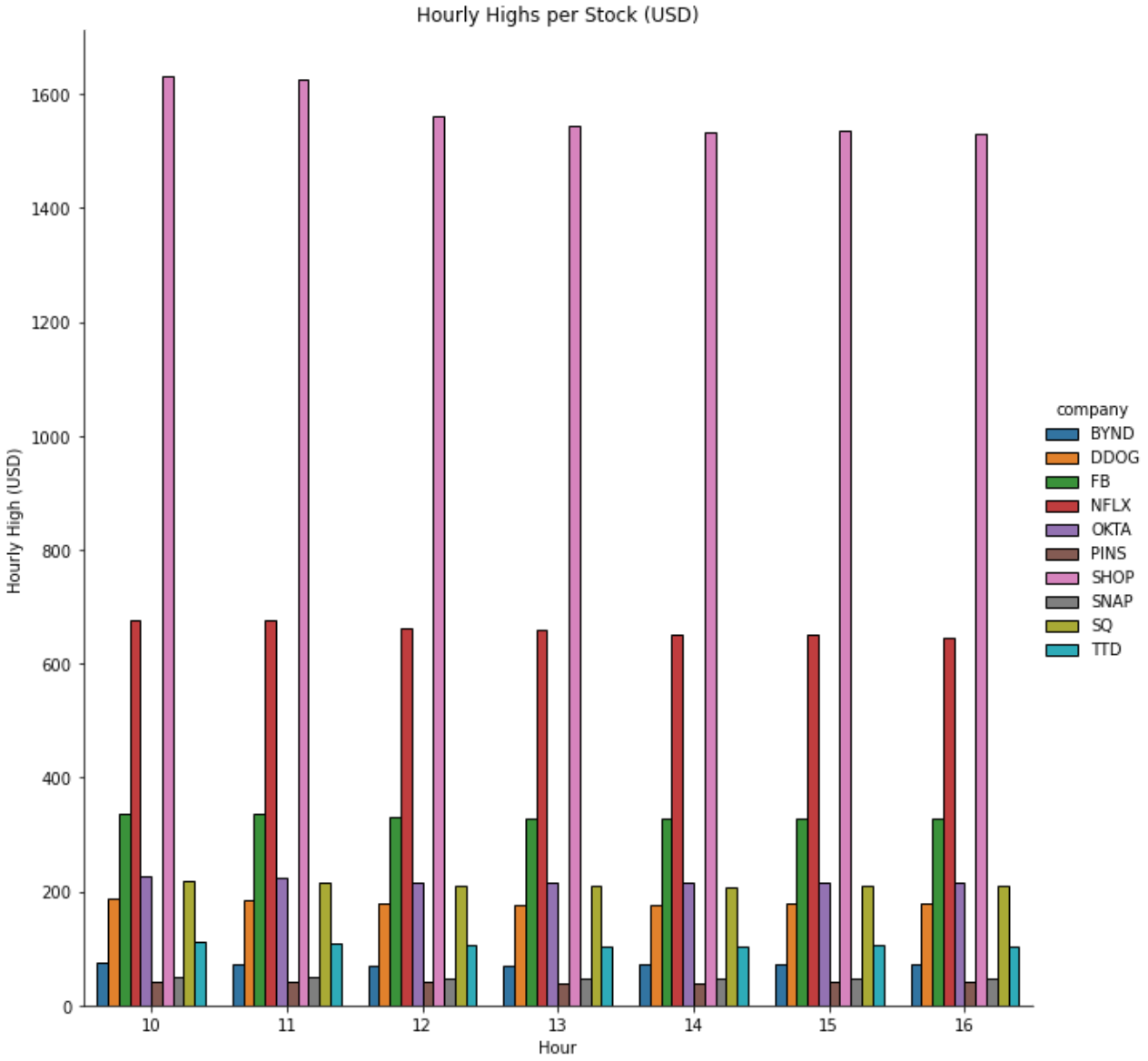
In [2]:
```
stock_data = pd.read_csv('results.csv')
stock_data.head()
```

Out[2]:

	company	hour	date_time	hourly_high
0	BYND	10	2021-11-30 09:35:00-05:00	74.543999
1	BYND	11	2021-11-30 10:00:00-05:00	73.279999
2	BYND	12	2021-11-30 11:20:00-05:00	71.040001
3	BYND	13	2021-11-30 12:30:00-05:00	71.019997
4	BYND	14	2021-11-30 13:55:00-05:00	71.239998

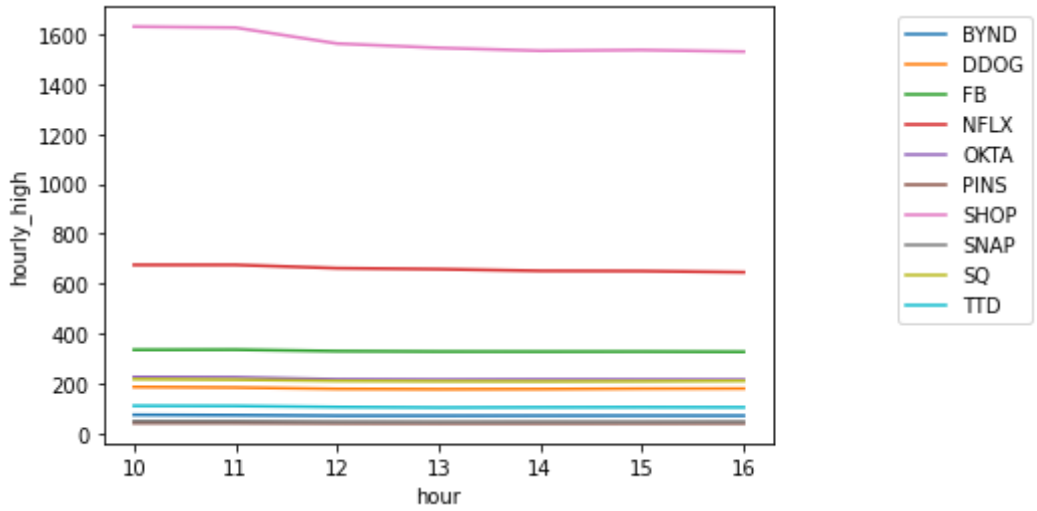
In [48]:
```
plot1 = sns.catplot(x='hour',y='hourly_high', hue = 'company',
            data = stock_data,
            kind = 'bar',
                     edgecolor = 'black',
                    height = 9)


plot1.set(xlabel = "Hour", ylabel = 'Hourly High (USD)')
plot1.set(title = 'Hourly Highs per Stock (USD)')
```

Out[48]:
```
<seaborn.axisgrid.FacetGrid at 0x125cb73d0>
```

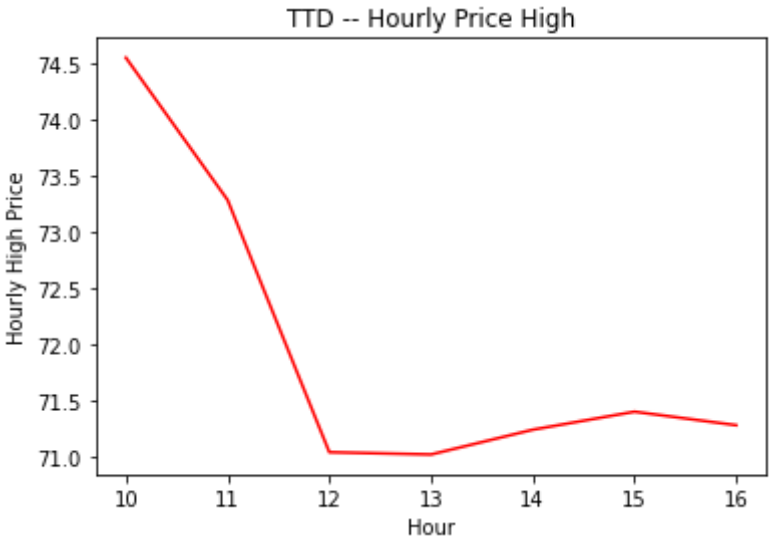


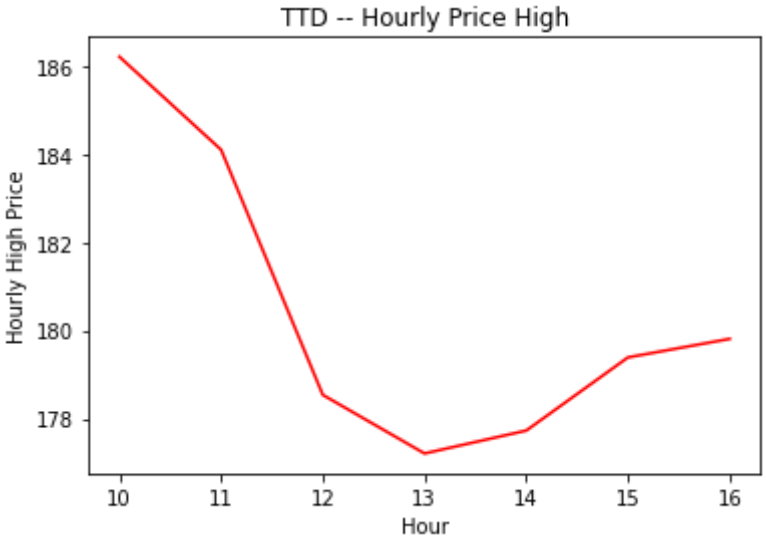
In [61]:
```
# line plots of each company, side by side

sns.lineplot(x='hour',y='hourly_high', hue = 'company',
             data = stock_data)

plot1.set(xlabel = "Hour", ylabel = 'Hourly High (USD)')
plot1.set(title = 'Hourly Highs per Stock (USD)')
plt.legend(bbox_to_anchor=(1.4,1), loc = 'upper right')
```

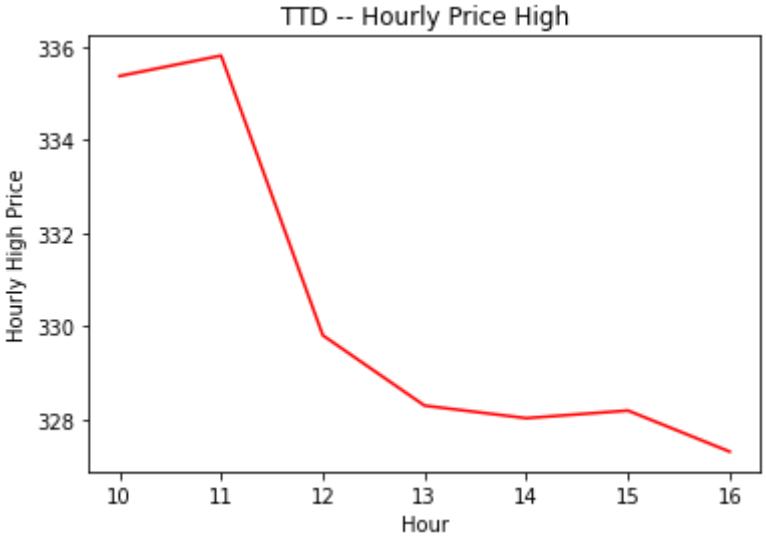
Out[61]:
```
<matplotlib.legend.Legend at 0x124694070>
```

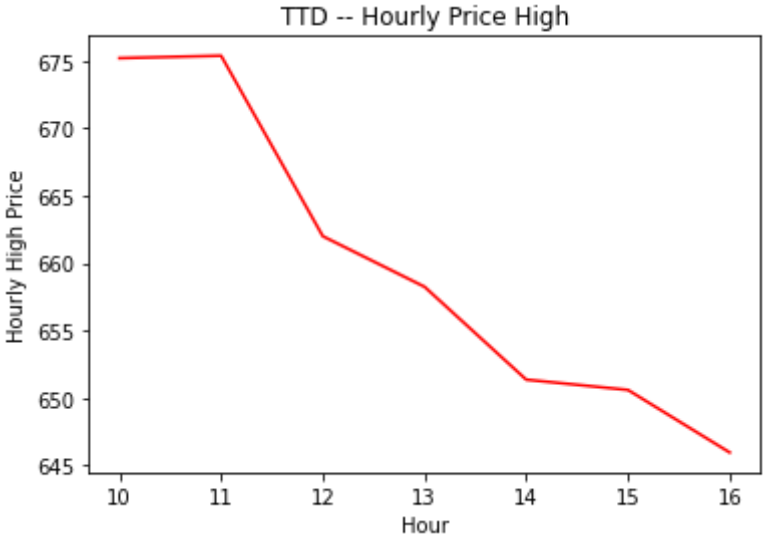


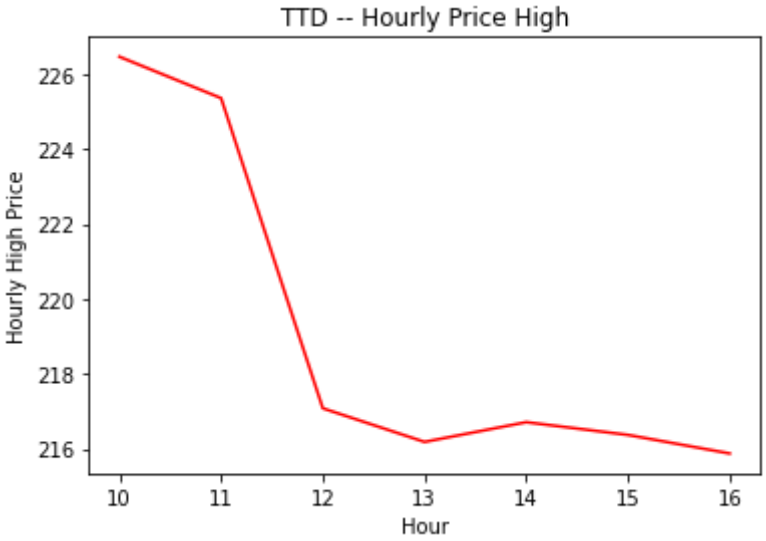
In [78]:
```
# individual line plots for each ticker
# shows a trend line for pricing thoughout the day

stock_list = stock_data['company'].unique()
for stock in stock_list:
    image = stock_data[stock_data['company'] == stock]
    plt.plot(image.hour, image.hourly_high, color = 'red')
    plt.title(f"{company} -- Hourly Price High")
    plt.xlabel("Hour")
    plt.ylabel("Hourly High Price")
    plt.show()
```

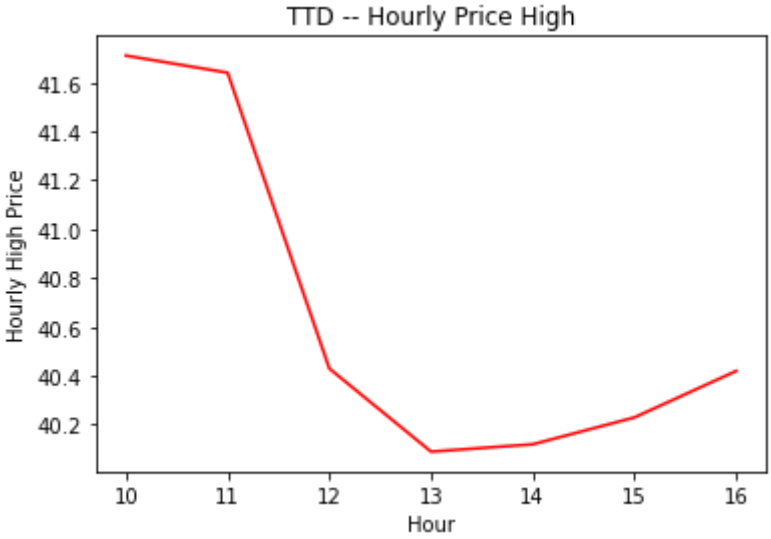


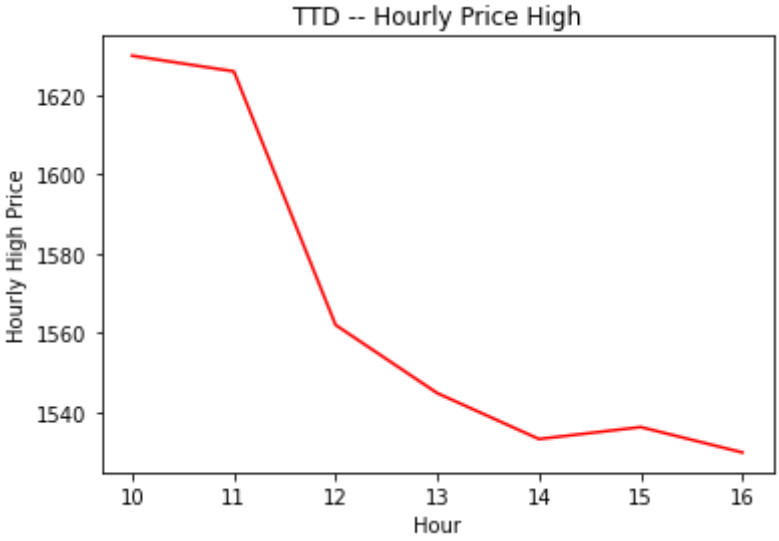

TTD -- Hourly Price High
Hourly High Price
186
184
182
180
178
10
11
12
13
14
15
16
Hour

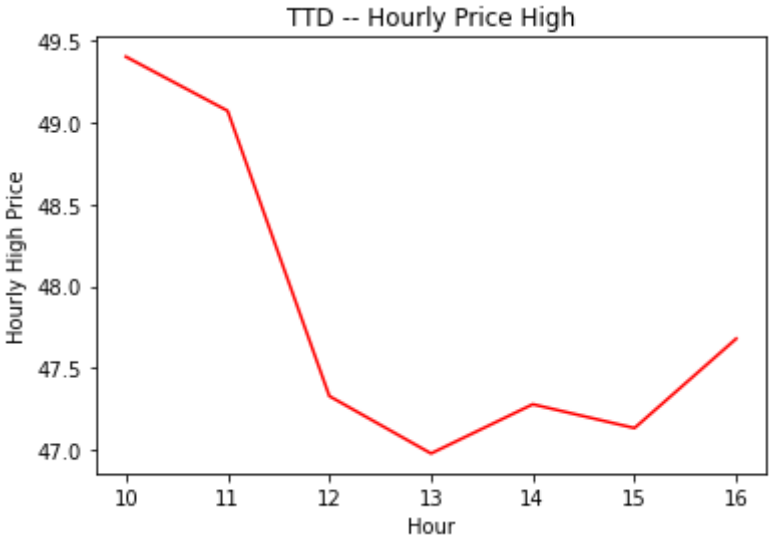

TTD -- Hourly Price High
Hourly High Price
336
334
332
330
328
10
11
12
13
14
15
16
Hour

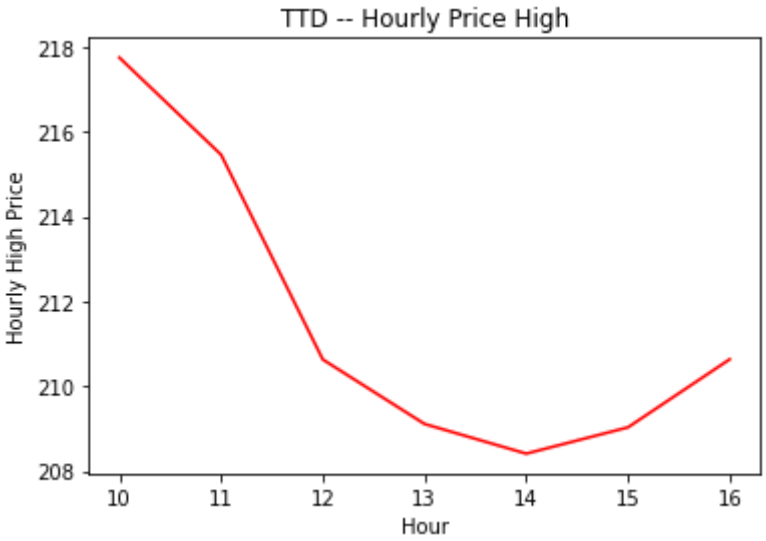

TTD -- Hourly Price High
Hourly High Price
675
670
665
660
655
650
645
10
11
12
13
14
15
16
Hour

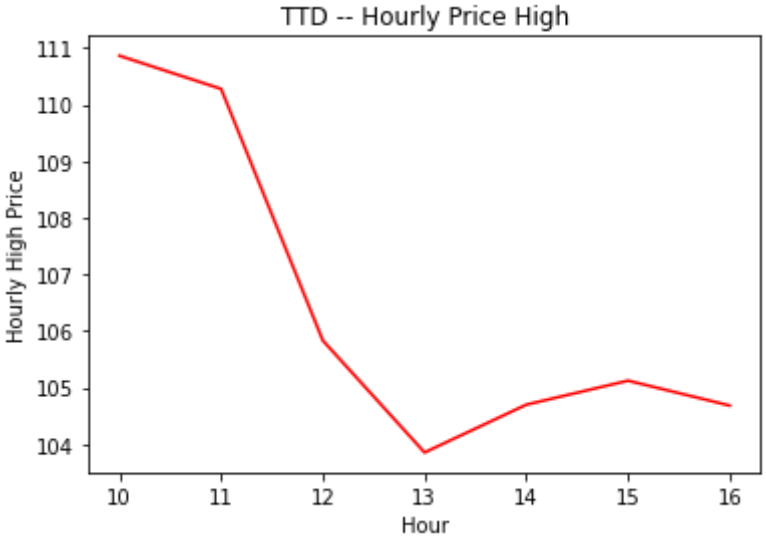

TTD -- Hourly Price High
Hourly High Price
226
224
222
220
218
216
10
11
12
13
14
15
16
Hour


TTD -- Hourly Price High
Hourly High Price
41.6
41.4
41.2
41.0
40.8
40.6
40.4
40.2
10
11
12
13
14
15
16
Hour


TTD -- Hourly Price High
Hourly High Price
1620
1600
1580
1560
1540
10
11
12
13
14
15
16
Hour


TTD -- Hourly Price High
Hourly High Price
Hour
49.5
49.0
48.5
48.0
47.5
47.0
10
11
12
13
14
15
16


TTD -- Hourly Price High
Hourly High Price
Hour
218
216
214
212
210
208
10
11
12
13
14
15
16


TTD -- Hourly Price High
Hourly High Price
Hour
111
110
109
108
107
106
105
104
10
11
12
13
14
15
16

In [ ]: