Streaming Finance Data Analysis

Data Collection

Using yfinance, I gathered one full day's worth of stock data (High and Low prices) for the following companies:

- Facebook (FB)
- Shopify (SHOP)
- Beyond Meat (BYND)
- Netflix (NFLX)
- Pinterest (PINS)
- Square (SQ)
- The Trade Desk (TTD)
- Okta (OKTA)
- Snap (SNAP)
- Datadog (DDOG)

Data is from Tuesday, May 11th, 2021

```python
In [1]: #importing necessary libraries

import matplotlib.pyplot as plt
import numpy as np
import pandas as pd
import seaborn as sns
```

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

Out[2]:

	company	highest_hourly_price	datetime	hour
0	BYND	104.709999	5/11/21 9:55	5
1	BYND	106.460999	5/11/21 10:55	6
2	BYND	107.695000	5/11/21 11:55	7
3	BYND	108.839996	5/11/21 12:55	8
4	BYND	110.660004	5/11/21 13:45	9

## Hourly high price of each company listed above

```python
In [5]: company_arr = df['company'].unique()
for company in company_arr:
    plot_df = df[df['company'] == company]
    plt.plot(plot_df.hour, plot_df.highest_hourly_price)
    plt.title(f"Hourly High Price'{company}'")
    plt.xlabel("Hour")
    plt.ylabel("High Price")
    plt.show()
```
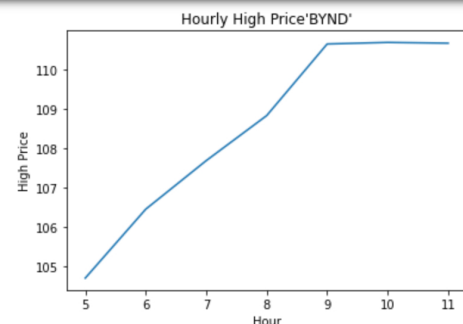

Comparing Facebook and Netflix's hourly highest price

```python
In [11]: ddog_df = df[(df['company'] == "DDOG")]
pins_df = df[(df['company'] == "PINS")]

fig = plt.figure(figsize=(9,5))

line_company = sns.lineplot(x="hour", y="highest_hourly_price", data=ddog_df, label='DDOG')
line_company = sns.lineplot(x="hour", y="highest_hourly_price", data=pins_df, label='PINS')
```

```
line_company.set(xlabel='Hour', ylabel='Price')

plt.show()
```
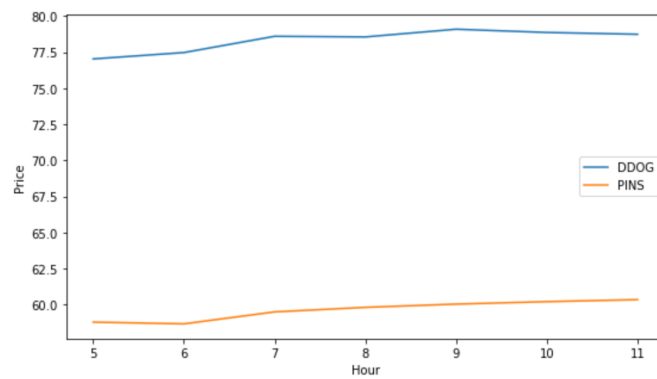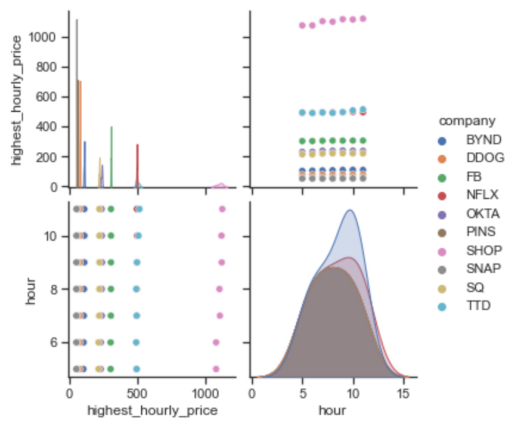

Scatter Plot Matrix

Plot pairwise relationships in a dataset.

By default, this function will create a grid of Axes such that each numeric variable in data will by shared across the y-axes across a single row and the x-axes across a single column. The diagonal plots are treated differently: a univariate distribution plot is drawn to show the marginal distribution of the data in each column.

In [12]:
```
plt.figure(figsize=(15,5))

sns.set(style="ticks")

hue_company = sns.pairplot(df, hue="company")
```

```
<Figure size 1080x360 with 0 Axes>
```


In [ ]: