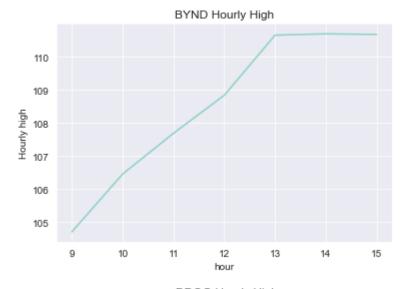
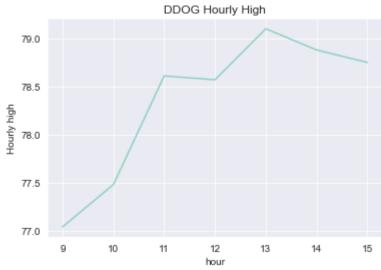
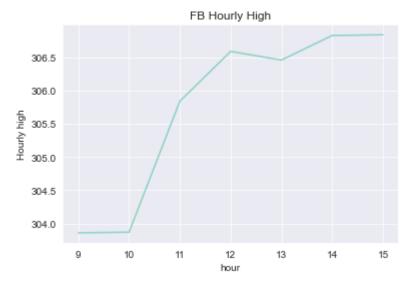
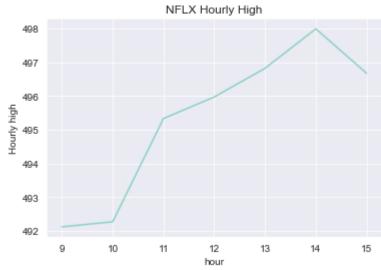
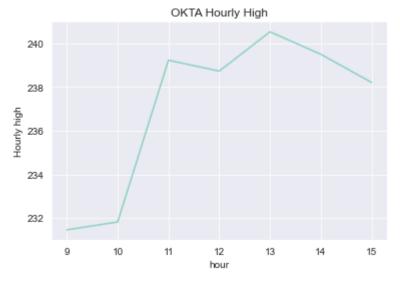
```
## Import libraries
In [1]:
         import pandas as pd
         import seaborn as sns
         import matplotlib.pylab as plt
         import numpy as np
In [2]:
         ## Read csv
         df = pd.read_csv("results.csv")
         df.head()
Out[2]:
           name hour high
        O BYND
                    9 104.71
        1 BYND
                   10 106.46
        2 BYND
                   11 107.69
        3 BYND
                   12 108.84
        4 BYND
                   13 110.66
         ## Graphing hourly high for each stock
In [3]:
         stocks = df['name'].unique()
         sns.set_style("darkgrid")
         sns.set palette("Set3")
         for s in stocks:
             graph df = df[df['name']==s]
             sns.lineplot(x='hour', y='high', data=graph_df)
             title=s+" Hourly High"
             plt.title(title)
             plt.ylabel("Hourly high")
             plt.show()
```

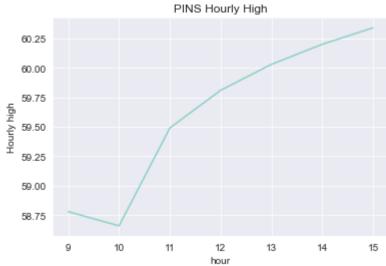




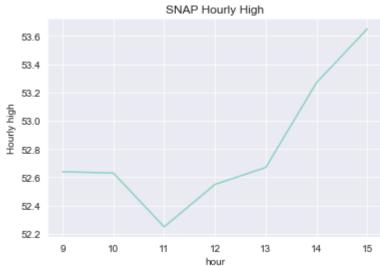


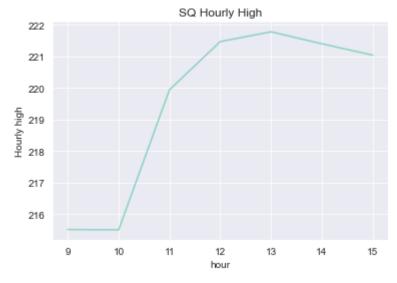


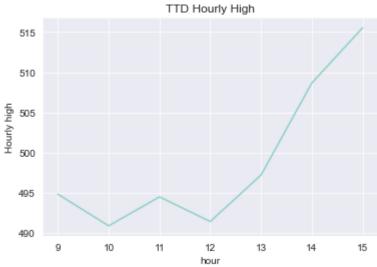












```
In [4]: ## Pivot table
    df2 = df.pivot(index = "name", columns = "hour", values = "high").reset_index()
    df2.columns = df2.columns.astype(str)
    df2.head(10)
```

Out[4]:	hour	name	9	10	11	12	13	14	15
	0	BYND	104.71	106.46	107.69	108.84	110.66	110.70	110.68
	1	DDOG	77.04	77.48	78.61	78.57	79.10	78.88	78.75

hour	name	9	10	11	12	13	14	15
2	FB	303.86	303.87	305.84	306.59	306.46	306.83	306.84
3	NFLX	492.12	492.27	495.33	495.97	496.82	497.99	496.67
4	OKTA	231.46	231.82	239.23	238.73	240.53	239.50	238.21
5	PINS	58.78	58.66	59.49	59.81	60.03	60.20	60.34
6	SHOP	1076.58	1076.50	1104.30	1101.40	1117.99	1116.00	1121.59
7	SNAP	52.64	52.63	52.25	52.55	52.67	53.27	53.65
8	SQ	215.51	215.50	219.94	221.47	221.78	221.40	221.04
9	TTD	494.84	490.90	494.50	491.44	497.22	508.67	515.53

```
In [5]: ## Calculate Percent Change
    df2['Percent Change'] = (df2["15"]-df2["9"])/df2["9"]
    df2.head(10)
```

hour	name	9	10	11	12	13	14	15	Percent Change
0	BYND	104.71	106.46	107.69	108.84	110.66	110.70	110.68	0.057015
1	DDOG	77.04	77.48	78.61	78.57	79.10	78.88	78.75	0.022196
2	FB	303.86	303.87	305.84	306.59	306.46	306.83	306.84	0.009807
3	NFLX	492.12	492.27	495.33	495.97	496.82	497.99	496.67	0.009246
4	OKTA	231.46	231.82	239.23	238.73	240.53	239.50	238.21	0.029163
5	PINS	58.78	58.66	59.49	59.81	60.03	60.20	60.34	0.026540
6	SHOP	1076.58	1076.50	1104.30	1101.40	1117.99	1116.00	1121.59	0.041808
7	SNAP	52.64	52.63	52.25	52.55	52.67	53.27	53.65	0.019187
8	SQ	215.51	215.50	219.94	221.47	221.78	221.40	221.04	0.025660
9	TTD	494.84	490.90	494.50	491.44	497.22	508.67	515.53	0.041811
	0 1 2 3 4 5 6 7 8	<ol> <li>BYND</li> <li>DDOG</li> <li>FB</li> <li>NFLX</li> <li>OKTA</li> <li>PINS</li> <li>SHOP</li> <li>SNAP</li> <li>SQ</li> </ol>	<ul> <li>0 BYND 104.71</li> <li>1 DDOG 77.04</li> <li>2 FB 303.86</li> <li>3 NFLX 492.12</li> <li>4 OKTA 231.46</li> <li>5 PINS 58.78</li> <li>6 SHOP 1076.58</li> <li>7 SNAP 52.64</li> <li>8 SQ 215.51</li> </ul>	<ul> <li>0 BYND 104.71 106.46</li> <li>1 DDOG 77.04 77.48</li> <li>2 FB 303.86 303.87</li> <li>3 NFLX 492.12 492.27</li> <li>4 OKTA 231.46 231.82</li> <li>5 PINS 58.78 58.66</li> <li>6 SHOP 1076.58 1076.50</li> <li>7 SNAP 52.64 52.63</li> <li>8 SQ 215.51 215.50</li> </ul>	0       BYND       104.71       106.46       107.69         1       DDOG       77.04       77.48       78.61         2       FB       303.86       303.87       305.84         3       NFLX       492.12       492.27       495.33         4       OKTA       231.46       231.82       239.23         5       PINS       58.78       58.66       59.49         6       SHOP       1076.58       1076.50       1104.30         7       SNAP       52.64       52.63       52.25         8       SQ       215.51       215.50       219.94	0         BYND         104.71         106.46         107.69         108.84           1         DDOG         77.04         77.48         78.61         78.57           2         FB         303.86         303.87         305.84         306.59           3         NFLX         492.12         492.27         495.33         495.97           4         OKTA         231.46         231.82         239.23         238.73           5         PINS         58.78         58.66         59.49         59.81           6         SHOP         1076.58         1076.50         1104.30         1101.40           7         SNAP         52.64         52.63         52.25         52.55           8         SQ         215.51         215.50         219.94         221.47	0         BYND         104.71         106.46         107.69         108.84         110.66           1         DDOG         77.04         77.48         78.61         78.57         79.10           2         FB         303.86         303.87         305.84         306.59         306.46           3         NFLX         492.12         492.27         495.33         495.97         496.82           4         OKTA         231.46         231.82         239.23         238.73         240.53           5         PINS         58.78         58.66         59.49         59.81         60.03           6         SHOP         1076.58         1076.50         1104.30         1101.40         1117.99           7         SNAP         52.64         52.63         52.25         52.55         52.67           8         SQ         215.51         215.50         219.94         221.47         221.78	0         BYND         104.71         106.46         107.69         108.84         110.66         110.70           1         DDOG         77.04         77.48         78.61         78.57         79.10         78.88           2         FB         303.86         303.87         305.84         306.59         306.46         306.83           3         NFLX         492.12         492.27         495.33         495.97         496.82         497.99           4         OKTA         231.46         231.82         239.23         238.73         240.53         239.50           5         PINS         58.78         58.66         59.49         59.81         60.03         60.20           6         SHOP         1076.58         1076.50         1104.30         1101.40         1117.99         1116.00           7         SNAP         52.64         52.63         52.25         52.55         52.67         53.27           8         SQ         215.51         215.50         219.94         221.47         221.78         221.40	0         BYND         104.71         106.46         107.69         108.84         110.66         110.70         110.68           1         DDOG         77.04         77.48         78.61         78.57         79.10         78.88         78.75           2         FB         303.86         303.87         305.84         306.59         306.46         306.83         306.84           3         NFLX         492.12         492.27         495.33         495.97         496.82         497.99         496.67           4         OKTA         231.46         231.82         239.23         238.73         240.53         239.50         238.21           5         PINS         58.78         58.66         59.49         59.81         60.03         60.20         60.34           6         SHOP         1076.58         1076.50         1104.30         1101.40         1117.99         1116.00         1121.59           7         SNAP         52.64         52.63         52.25         52.55         52.67         53.27         53.65           8         SQ         215.51         215.50         219.94         221.47         221.78         221.40         221.04

```
data = df2)
plt.title("Percent Change on May 11th 2021")
plt.ylabel("Percent Change")
plt.xlabel("Stock")
plt.show()
```

