

**Dataset Link:**

**[Dataset](#)**

**Hint:**

```
import pandas as pd  
import numpy as np  
import matplotlib.pyplot as plt  
from pandas.tools.plotting import  
autocorrelation_plot from  
statsmodels.graphics.tsaplots import plot_pacf  
from statsmodels.tsa.arima_model import ARIMA, ARMAResults  
import datetime  
import sys  
import seaborn as sns  
import statsmodels  
import statsmodels.stats.diagnostic as diag  
from statsmodels.tsa.stattools import adfuller
```

```
from scipy.stats.mstats import normaltest
```

```
from matplotlib.pyplot import acorr
```

```
plt.style.use('fivethirtyeight')
```

```
%matplotlib inline
```

```
df = pd.read_csv('C:/Users/Downloads/sp500/data_stocks.csv')
```

```
df.head()
```

Out[8]:

	DATE	SP500	NASDAQ.AAL	NASDAQ.AAPL	NASDAQ.ADBE	NASDAQ.ADI	NASDAQ.ADP	NASDAQ.ADSK	NASDAQ.AKAM	NASDAQ.A
0	1491226200	2363.6101	42.3300	143.6800	129.6300	82.040	102.2300	85.2200	59.760	121.52
1	1491226260	2364.1001	42.3600	143.7000	130.3200	82.060	102.1400	85.6500	59.840	121.48
2	1491226320	2362.6799	42.3100	143.6901	130.2250	82.030	102.2125	85.5100	59.795	121.93
3	1491226380	2364.3101	42.3700	143.6400	130.0729	82.000	102.1400	85.4872	59.620	121.44
4	1491226440	2364.8501	42.5378	143.6600	129.8800	82.035	102.0600	85.7001	59.620	121.60

5 rows x 502 columns

### Problem Statement:

Pick up the following stocks and generate forecasts accordingly

Stocks:

1. NASDAQ.AAPL
2. NASDAQ.ADP
3. NASDAQ.CBOE
4. NASDAQ.CSCO
5. NASDAQ.EBAY