In [9]:

```
import matplotlib.pyplot as plt
import matplotlib.dates as mdates
import matplotlib.ticker as mticker
from matplotlib.finance import candlestick_ohlc
from matplotlib import style

import numpy as np
import urllib
import datetime as dt
%matplotlib inline
```

In [2]:

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

```
C:\Users\SIDDHARTH\Anaconda3\lib\site-packages\matplotlib\pyplot.py
```

In [21]:

```
#converting the datestamps from the Yahoo finance API to times that Matplotlib
 understands
def bytespdate2num(fmt, encoding='utf-8'):
    strconverter = mdates.strpdate2num(fmt)

    def bytesconverter(b):
        s = b.decode(encoding)
        return strconverter(s)

    return bytesconverter


def graph_data():

    fig = plt.figure()
    ax1 = plt.subplot2grid((1,1), (0,0))
    # Unfortunately, Yahoo's API is no longer available
    # feel free to adapt the code to another source, or use this drop-in repla
cement.
    stock_price_url = 'https://pythonprogramming.net/yahoo_finance_replacemen
t'
    source_code = urllib.request.urlopen(stock_price_url).read().decode()
    stock_data = []
    split_source = source_code.split('\n')
    for line in split_source[2:]:
        split_line = line.split(',')
        if len(split_line) == 7:
            if 'values' not in line and 'labels' not in line:
                stock_data.append(line)

    # pprint.pprint(stock_data)
    date, openp, highp, lowp, closep, adj_closep, volume = np.loadtxt(stock_da
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                                                                      delimite
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2014
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%Y
                                                                      converte
rs={0: bytespdate2num('%Y-%m-%d')})


    x = 0
    y = len(date)
    ohlc = []

    while x < y:
        append_me = date[x], openp[x], highp[x], lowp[x], closep[x], volume[x]
        ohlc.append(append_me)
        x+=1


    candlestick_ohlc(ax1, ohlc, width=0.4, colorup='#77d879', colordown='#db3f
3f')


    for label in ax1.xaxis.get_ticklabels():
        label.set_rotation(45)

    ax1.xaxis.set_major_formatter(mdates.DateFormatter('%Y-%m-%d'))
    ax1.xaxis.set_major_locator(mticker.MaxNLocator(10))
    ax1.grid(True)

    font_dict = {'family':'serif',
                 'color':'darkred',
                 'size':15}
    ax1.text(date[10], closep[1],'Text Example', fontdict=font_dict)

    plt.xlabel('Date')
    plt.ylabel('Price')
    plt.title('Market Stock')
    plt.legend()
    plt.subplots_adjust(left=0.09, bottom=0.20, right=0.94, top=0.98,
wspace=0.2, hspace=0)
    plt.show()


graph_data()
```
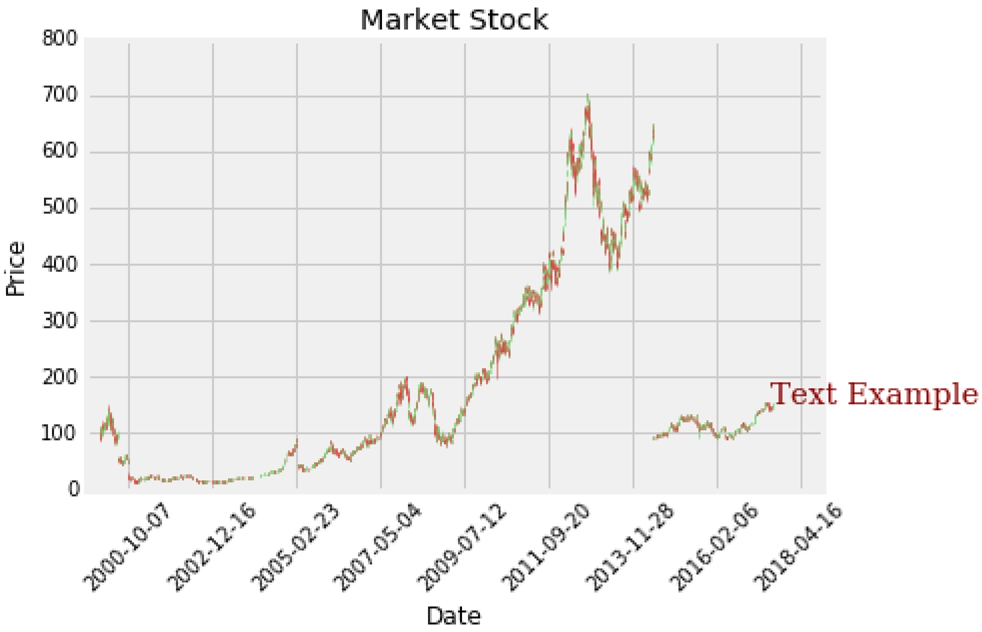

```
C:\Users\SIDDHARTH\Anaconda3\lib\site-packages\matplotlib\axes\_axes.py:519:
 UserWarning: No labelled objects found. Use label='...' kwarg on individual
 plots.
  warnings.warn("No labelled objects found. "
```



```
In [ ]:
```

In [20]:

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    ax1.xaxis.set_major_formatter(mdates.DateFormatter('%Y-%m-%d'))
    ax1.xaxis.set_major_locator(mticker.MaxNLocator(10))
    ax1.grid(True)

    ax1.annotate('Bad News!',(date[9],highp[9]),
                 xytext=(0.8, 0.9), textcoords='axes fraction',
                 arrowprops = dict(facecolor='grey',color='grey'))
    plt.xlabel('Date')
    plt.ylabel('Price')
    plt.title('Market Stock')
    plt.legend()
    plt.subplots_adjust(left=0.09, bottom=0.20, right=0.94, top=0.98,
wspace=0.2, hspace=0)
    plt.show()


graph_data()
```

```
C:\Users\SIDDHARTH\Anaconda3\lib\site-packages\matplotlib\patches.py:107: Use
rWarning: Setting the 'color' property will overridethe edgecolor or facecolo
r properties.
  warnings.warn("Setting the 'color' property will override"
C:\Users\SIDDHARTH\Anaconda3\lib\site-packages\matplotlib\axes\_axes.py:519:
 UserWarning: No labelled objects found. Use label='...' kwarg on individual
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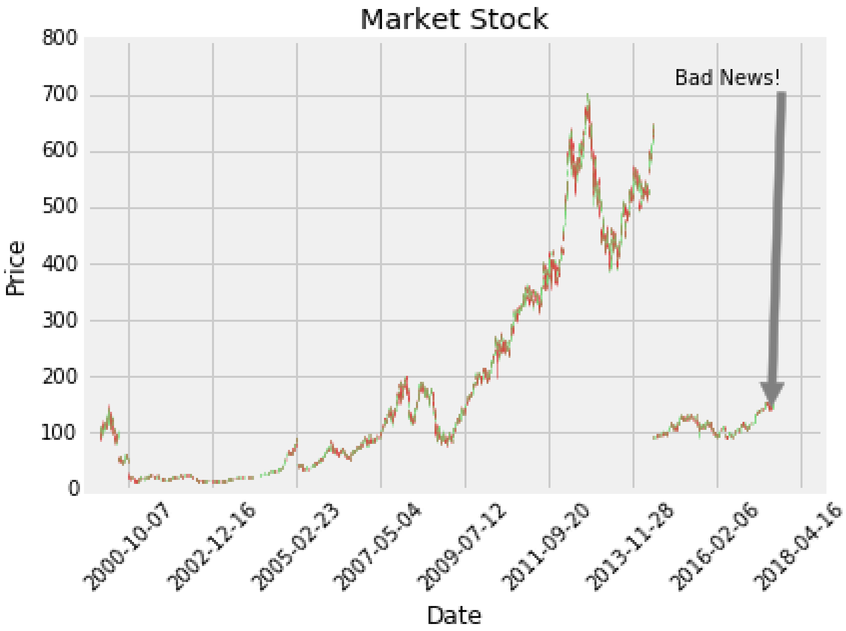

```
In [ ]:
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```
In [ ]:
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