```
In [2]:
        import matplotlib.pyplot as plt
         import numpy as np
         import urllib
         import matplotlib.dates as mdates
         %matplotlib inline
         #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
         + '
             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
         ta,
                                                                                 delimite
         r=',',
                                                                                 unpack=T
         rue,
                                                                                 # %Y = f
         ull year. 2015
                                                                                 \# \%y = p
         artial year 15
                                                                                 \# \%m = n
         umber month
                                                                                 \# %d = n
         umber day
                                                                                 # %H = h
         ours
                                                                                 \# \%M = m
```

```
inutes
                                                                        # %S = s
econds
                                                                        # 12-06-
2014
                                                                        # %m-%d-
%Y
                                                                        converte
rs={0: bytespdate2num('%Y-%m-%d')})
    ax1.plot_date(date, closep,'-', label='Price')
    ax1.plot([],[],linewidth=5, label='loss', color='r',alpha=0.5)
    ax1.plot([],[],linewidth=5, label='gain', color='g',alpha=0.5)
    ax1.axhline(closep[0], color='k', linewidth=5)
    ax1.fill between(date, closep, closep[0],where=(closep > closep[0]), facec
olor='g', alpha=0.5)
    ax1.fill_between(date, closep, closep[0],where=(closep < closep[0]), facec</pre>
olor='r', alpha=0.5)
    for label in ax1.xaxis.get_ticklabels():
        label.set rotation(45)
    ax1.grid(True)
    #ax1.xaxis.label.set_color('c')
    #ax1.yaxis.label.set_color('r')
    ax1.set_yticks([0,25,50,75])
    ax1.spines['left'].set_color('c')
    ax1.spines['right'].set visible(False)
    ax1.spines['top'].set_visible(False)
    ax1.spines['left'].set_linewidth(5)
    ax1.tick params(axis='x', colors='#f06215')
    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=0.90,
wspace=0.2, hspace=0)
    plt.show()
graph_data()
```



In []: