

```
def plot_boxplot(company_name, start_date, end_date, n=1):
    # Import data
    data_file = os.path.join("results", f"{company_name}_data.csv")
    data = pd.read_csv(data_file, index_col=0, parse_dates=True)

    # Filter data based on date range
    dt_range = pd.date_range(start=start_date, end=end_date)
    data = data[data.index.isin(dt_range)]

    data_resampled = data.resample(f'{n}D').agg({
        'Open': 'first',
        'High': 'max',
        'Low': 'min',
        'Close': 'last',
        'Volume': 'sum'
    })

    # Create a box plot
    data_resampled.boxplot(column=['Open', 'High', 'Low', 'Close'],
grid=False)

    # Customize plot labels and title
    plt.xlabel('Box Plot for Closing Price')
    plt.ylabel('Closing Price')
    plt.title(f'Box Plot for {company_name}')

    # Show the box plot
    plt.show()
    print("plotted " +str(n)+ " days of data")
```

```
def plot_candlestick(company_name, start_date, end_date, n=1):
    # Import data
    data_file = os.path.join("results", f"{company_name}_data.csv")
    data = pd.read_csv(data_file, index_col=0, parse_dates=True)

    # Filter data based on date range
    dt_range = pd.date_range(start=start_date, end=end_date)
    data = data[data.index.isin(dt_range)]

    # Resample the data to represent 'n' trading days per candlestick
    data_resampled = data.resample(f'{n}D').agg({
        'Open': 'first',
        'High': 'max',
        'Low': 'min',
        'Close': 'last',
        'Volume': 'sum'
    })

    # Create candlestick chart
    mpf.plot(data_resampled, type='candle', style='yahoo',
title=f'Candlestick Chart for {company_name}',
        ylabel='Price', volume=True)
    print("showing " +str(n)+" days per candle stick")
```

two functions to graph data

followed given link, preparing the data in the correct format.

<https://coderzcolumn.com/tutorials/data-science/candlestick-chart-in-python-mplfinance-plotly-bokeh>

.plot to plot the graph again using the sample provided.

.resample reshapes the data to n days per candle, I then used it in the box plot to show n days of the data.

.boxplot and .plt was similar to how the original sample (v0.1 and p1) graphed their data.