Title: Task B-1 Report

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Task information:

I found this task to be fairly straightforward. For the candlestick chart, I used the mplfinance from the provided tutorial to make the code. As for the boxplot chart, I used matplotlib to make the boxplot chart. Both the code for the candlestick and boxplots were very, short and straightforward so I believe there is little explanation needed. Both the candlestick and boxplot chart functions (plus included comment explanations) can be seen in figure 01

```
def candlestickChart(filename):
    # Get data
    df = checkFiles(filename)

    # Make it know that the date columm is indeed a date
    df['Date'] = pd.to_datetime(df['Date'])
    # Set the index of the dataframe to be the date columm
    df = df.set_index(df['Date'])
    df = df.sort_index()

    # Get the last n days
    actual_prices_small = df[-NDAYS:]

    # Plot the candlestick chart
    mpl.plot(actual_prices_small.set_index("Date"), type="candle", style="charles", title='Candlestick Chart')
    # Uses mplfinance  to make the candlestick chart
    # uses the date columm as index
    # uses the 'charles' stle to make the decreasing days red and increasing days green

def boxplotChart(filename):
    # Get data
    df = checkFiles(filename)

    # Make sure it's only using the data and close columms
    dateClose = df[['Date', 'Close']]
    # Get the last n days
    actual_prices_small = dateClose[-NDAYS:]

    # Plot the boxplot chart
    fig = actual_prices_small["Close"].plot(kind='box', title='Boxplot Chart', grid=True)
    # Uses Matplotlib  to make the boxplot chart
    # uses grid=True to make a grid so the chart is easier to read

    # Display the plot
    plt.show()
```

Figure 01

I also restructured the functions from the previous task, made some improvments and I noticed an issue that has now been fixed.
There is now a parameters.py file, that is used to modify the parameters of how the program will run. Additionally the diferent modes of the program are now changd with a single ‘MODE’ variable and the program uses a switch to pick the correct mode