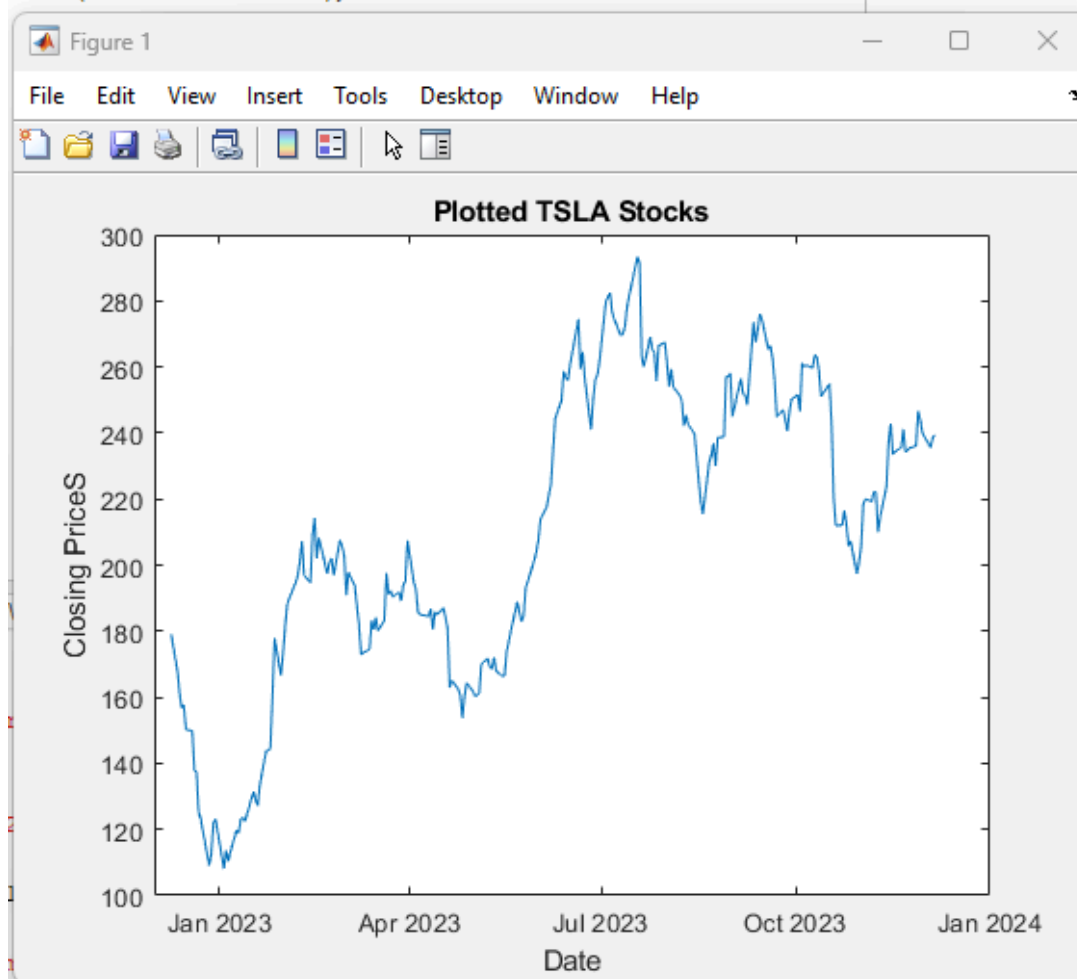<div align="center">First steps:</div>

I used the most recent(from last December of 2022 to current December 7th, 2023) for the TESLA data and I used it daily just so there is a lot of data for Matlab to work with(it essentially resulted in an excel file filled 250 integers, meaning matlab will work with 250 prices).
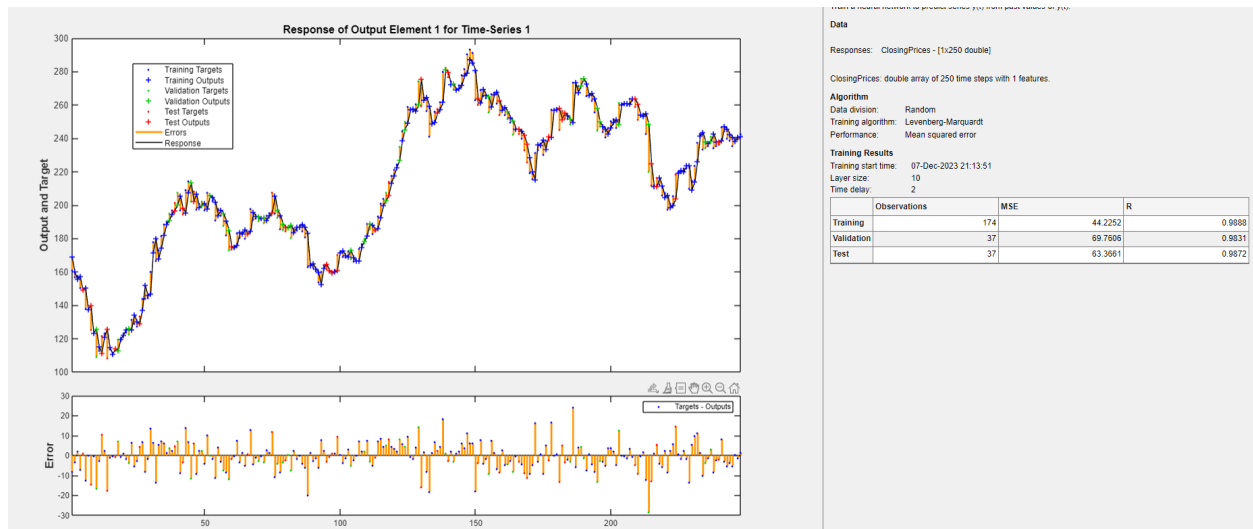
I first plotted the closing prices with the dates just to understand how it looks before its used with NAR:

```
x = readtable('TLSA.xlsx', 'Range', 'A2:A250');
y = readtable('TLSA.xlsx', 'Range', 'E2:E250');
figure;
plot(x{:,:}, y{:,:});
xlabel('Date');
ylabel('Closing PriceS')
title('Plotted TSLA Stocks');
```

After plotting, I went to the Neural Network Time Series app on matlab to create a network. I created a 2nd excel file with just the closing prices.
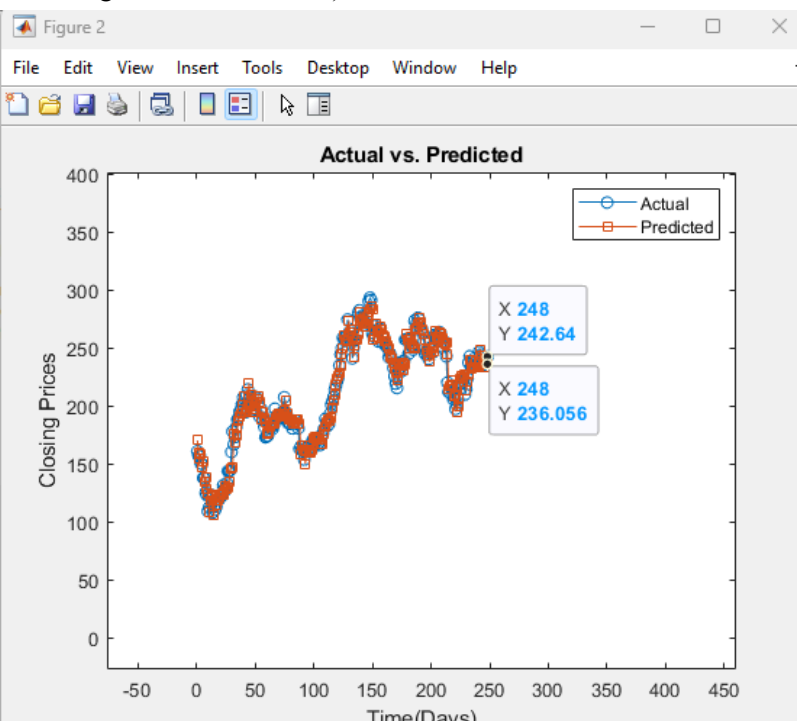

After the training was done and I looked through the response diagrams that was viewable, I exported the code and modified it so it outputted a graph of the actual data from before next to predicted points from the NAR(which resembles the response diagram but isn't exact).

After looking at all 3 graphs, I can predict that it will go up slightly(past 240 to maybe 250) the next few days until the January of 2023 as I noticed that it occasionally fluctuates month to month(prices peaked in the summer, specifically July and has declined since) and currently the stock prices are going up.