Frank Martino - Proof of Skills Analytical Calculations Day 3

Q3 Analytical Calculations with personal calculator (TI-XX) and MATLAB or equivalent

Prove your skill set in using tools for analytical calculations.

Q3.7 Regression Analysis

I can use a regression in MATLAB to help define my function

I can prove my skills in regression analysis using Matlab by making an equation to fit a set of data points. I first created x and y values that somewhat resembled a quadratic equation that acted as the data points that could be from a lab or experiment. From there I plotted all of the points on the graph and used the polyfit function that takes in parameters such as x, y, and the degree (2 in this case) to make a line of best fit. Then I used polyval to evaluate the previously made equation at the x values. The hold on function was also used to keep the data points and best fit equation on the graph at the same time.
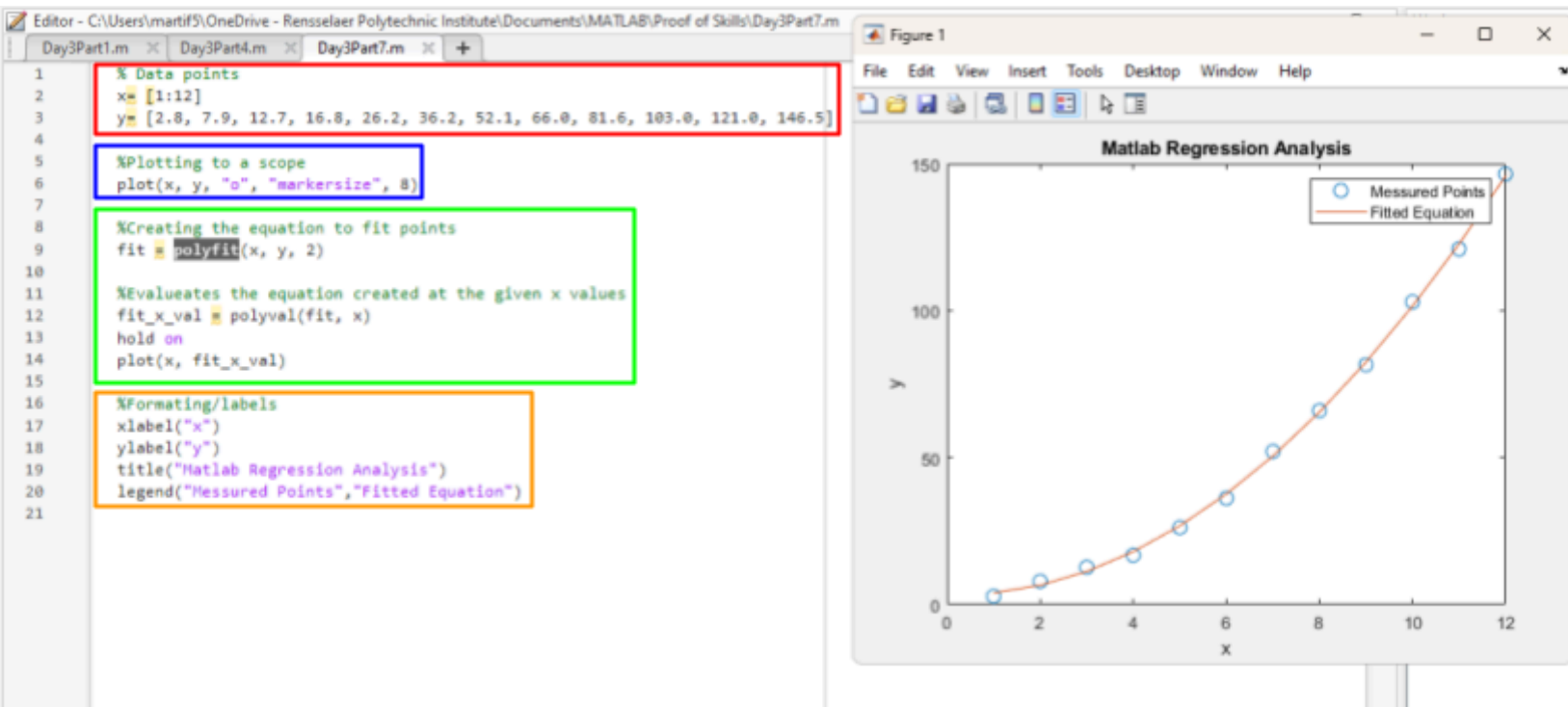
Above shows the code I used to perform the regression analysis on the set of data values. The data values are shown in the red box above and are split into x and y values. The blue box shows the function used to plot the points on the graph. The green box shows how I used the

polyfit and polyval functions to create a line of best fit for the data points and plot it. The orange box shows some of the formatting and labels for the axis, title, and legend.