I choose to do the default example that was given to me. What I had to do was to create a gui that takes inputs for x and y values and then plots them on a graph. I also added the ability to select the line specification where you can choose between Blue o’s, a red line, and green stars. I was able to create this, but it was not as smooth as I expected it to be and took me longer to solve.

Starting the project was relatively simple. I was able to think of an outline easily and visualize what the functions will be doing. Once I started coding, though, I started to get quite confused. I am still a little confused on the coding when it comes to creating a gui. I was able to use the example video from class to help me to create the plot and some of the buttons. The video did not include an edit box, so I did not know how to implement one. In addition to that I did not even know what an edit box was. This made it hard to figure it out through research. I still do not fully understand some of the specifics in the main function, but I understand it well enough to make changes and know what it is doing.

Another thing that the video helped me with was the dotSelect function I had, which determines what button is selected out of the button group. I understand the function and its importance, but without the video I would not have known that I needed it. This function is called in the function typeDot which is also influence by a function from the video. The purpose of that function is to output the correct line specification, by using an if statement and the dotSelect function.

The function plotData was the function that differed most from the example video. This is where most of my effort went into. I needed to find a way to convert the inputs from the edit boxes to arrays that could be plotted. It took a long time to research how to do this. I was not sure what I needed to do. I ended up finding two function that I needed and awkwardly combined them to get the result I was looking for. I was then able to use the plot function to plot the x array and the y array. In that plot function I called the function typeDot to get the selected line specification.

I wish that I did something that would be more useful in my future. I will always have access to apps that can plot points. I should have done a function that would help me for my major which is mechanical engineering. I am glad that I gained the knowledge and problem-solving skills I got while creating the function, but I feel like I would have gotten more out of it if it were related to my major in some way.

I will use what I learned in the future. I have been seeing a lot of tedious work in some of my recent math classes. For example, in linear algebra, we must take the determinant of a matrix several time every day. It is not hard by any means, but it takes a significant about of time. Using what I learned in this class I could easily create a gui that takes input for a matrix and automatically gives me the determinant. This could improve the efficiency while doing linear algebra significantly. As math classes become more and more complex knowing how to use matlab will help me stay efficient in my work. I already use excel for many of my classes, so knowing how to use matlab with excel will strengthen my productivity.

In the past if I needed to do a complex math problem, I either did the work on paper or looked up a calculator on google. I make can make too many errors on paper, and as the problems become more specific google will not be helpful anymore, so the most reliable way to solve problems will be with matlab.

Doing this final project has strengthened my understanding of how to create a gui. It gave me the opportunity to use what I have learned in the future. I will take advantage of that opportunity because I can see this knowledge helping me in my future classes and my career in general. I wish that I did something more complex, so that it would have helped me even more. I already had a class where I learned the basics to python and did not use what I learned. I ended up just forgetting everything. I will actively practice what I learned in matlab so that I do not make the same mistake again. The information that I learned is too important to just forget, and not utilize.