My code began with the concept of data visualization with regards to how something that affects us all. The Covid issue which has forced all of us to stay home and attempt to complete the semester to the best of our ability. Besides out microcosm of the college scope there have been upheavals in almost all aspects of life. Working from home, oil prices hitting negative values and the stock market starting to look like a roller coaster. The purpose of my code was to see if I could visualize a trend between Covid deaths, cases and index funds show a clear correlation.

I started with the united states and how the cases took the exponential increase of spreading during the period of data I gathered. We plotted using matplot library and other libraries we saw this cure that sky rocked and if the correlation can be seen as true then we would all be in a lot more trouble. Then I went further and realized cases were on thing but its not indicative on something that would affect the market so dramatically. We then look at the death rate of this issue. This trend shows us some interesting data. We see when the death rate or mortality rate spikes the market has begun its fall but not losing too much value but when we see our largest mortality rate spike, we see the largest drop between the period of 3/1/2020 and 3/15/2020. This proved a part of my hypothesis that there was an effect, but it was not tied to the figures only. I would venture to guess when the severity of the problem was realized, and more borders closed the stocks fell. This coincided with the with mortality rate to show a trend. From there we started to branch out further. I choose two countries that where the worst impacted. I did no use china as I am not certain the data would be reliable. There is a lot of speculation surrounding those figures, so I chose to exclude the. I went with Italy and Spain and tracked their cases. This is where I ran into my first big issue for some reason, I ran into a wall trying to depict the mortality rate of these two counties. I was able to show the cases which followed the same exponential curve as the United stated but upon calculating mortality Italy’s trend read true but Spain for some reason I couldn’t get working. I am thinking It may be something to do with my calculations or my data sets. Spain didn’t report any deaths for about five or six days after Italy started so perhaps the number of zeros leveled my curve. I included the code to how I was working on it but I was struggling to fix what is probably a bone headed mistake. The Stock market graph took information from index funds of the globe, EU and United states based on their close value to generate the graph. This was the last graph I created, and I was becoming more familiar with matplotlib that it was much more concise code with no many comments. The data set was straight forward and easy to work with.

There where a few lessons learned from this final project. One is don’t take 5 online courses all tech intensive. Going in class I was able to better learn and feel more comfortable with material in person. Granted this wasn’t a choice made lightly by the school and it was necessary my learning was definitely impacted. Along with my time for school had changed due to having to physically report to work the hours had shifted to closed to a 12 hour day at work which is 4 hours less then usual. So overall I feel like I should have done more data sets with more index funds for those countries index funds but I frankly didn’t have time to do what I really wanted to set out to do. I had a lit of information though I chose to use visualization to convey my point. This is a very important lesson to take a away. Hard data is great for those who know how to manipulate it though graphing the information in a meaningful way is a better skill if you have to present to someone who doesn’t want to be mired in the data or excel sheets. As far as my goals went I finished the united states, I finished some of the Italy and spain data and surprisingly the stock market was finished. I thought that would dbe the hardest graphing portion but the data was great to work with. I did not find a unrelated data set to match the curve to show that data though important it has to be relevant. If I had more time, I planned on finding something comical to compare it to like the stock market crashed in pattern with the number of bikes stolen or something to that effect. So, with the goals I listed I feel Like I accomplished 80%. I would remove ten percent for the failure to complete my Spain and Italy comparison. I would remove five percent because of the scope and breadth of the project should have been wider and percent because I didn’t reach my stretch goal to show data isn’t everything