When I started this project, I was originally deciding between doing a bar graph with a menu and a line graph with a menu depending on what type of data I ended up choosing. I knew I wanted something related to other countries or something real estate related. After spending some time on Kaggle.com I found a dataset containing information related to rental properties in the United Arab Emirates and I was able to combine my topic ideas into one. I was surprised to see just how expensive rent was at some of these properties even adjusted to US currency and this is what ended up pulling me towards this particular data set.

Due to the vast amount of data points, my original plan was to have a way to change what is being displayed on the y-axis so it could be viewed over the same dates on the x-axis. This would have allowed comparisons on rent price, bedrooms, bathrooms, etc. at various parts of the year. After much effort, I was not able to incorporate this while also having the graph itself work the way I wanted it to. I ultimately decided to opt for just the interactive graph to give a better look at the specific days and the yearly rent price. This also allowed for the frequency of listings to be viewed though I would have liked to add a feature to zoom in and out across the x-axis and y-axis to make it clearer.

Looking at the graph itself, it is easy to see that the rent data is left skewed and has a large spread of dates as well as price. I chose green for the line color because when talking about money and prices green is a color people tend to associate with that and it wouldn’t feel out of place. For the point that follows the cursor I went with red with a black stroke to make it easier to see. I chose black for everything else because I felt that adding other colors would subtract from or clash with the green line and make it less clear. Just looking at the line someone would be able to see how the rent has trended over the last year, but it is not easy to see specific prices due to the large spread. For better visualization and interactivity, I chose to add a box of relevant information and a point that would make the data easier to read. When you move the cursor across the graph it will move the point across the path of the graph. This will tell you the exact date your cursor is on as well as the yearly price of rent for that particular property.

When combining the graph with the information box, it becomes possible to answer several questions someone might have about the data. If I want to know what the cheapest property for sale between May and July of 2023 was, I can simply use my cursor to scrub across the line graph until I find the cheapest property.

A graph of a graph with green lines

Description automatically generated with medium confidence

The graph also shows the density of listings over the x-axis. If I want to know what parts of the year I can expect to find the most listings, I can scrub through the line graph while looking at the movement of the point and the date shown in the box and see how many days are listed in each month. For example, scrubbing through March of 2023 and doing the same in September of 2023 will show that there are more individual days with listings in September. This can be seen just by looking at the graph but in order to confirm the number of days with listings you have to scrub through the graph.

A graph with green lines and red dot

Description automatically generatedA graph with green grass and black rectangle with white text

Description automatically generated

Often when looking at real estate graphs people wonder where prices and listings are trending. It is possible to see this using the same method. I can scrub through the data and see that there are more listings the closer I get to today. For example, comparing March 2023 with March 2024 shows that there are more listings in general in 2024 but it also shows that while there were more expensive listings than in 2023 there were also more affordable listings than in 2023. This would suggest that while the average price is likely going up, there are also more affordable listings to make up for it.

A graph with green lines and red dot

Description automatically generatedA graph with a black rectangle and white text

Description automatically generated

Overall, I believe this graph turned out to be a useful tool someone could use to get a good understanding of the dataset. I look forward to learning how to make more advanced visualizations in the future.