For your final project you will pull it all together. You will need to use your own data, preferably something that relates to your work if possible. If not you can find your own data. If you need help finding a good data set please contact me right away.

For the final you are free to use whichever visualization software you prefer, or a mixture of several. The only restriction is you may NOT use excel for anything except to hold the data.

Once you create your visualizations you will need to load these into a powerpoint format. I will grade these from the viewpoint of you presenting them to your boss. So keep in mind the end result. As we’ve discussed all semester, what story does the data tell? Does it stand on its own?

Since we will not have enough time in class for 30 people to present you will need to populate the notes section of each slide with what you would verbally say if you were presenting this to your boss. You should strive for a 10-minute presentation. It should include no less than 8 visualizations.

The MINIMUM elements that must be represented in your final project are as follows:

* Mapping through either (x,y), (lon,lat) coordinates or through geospatial variables like zipcode, county, state, city, etc.
* Treemap
* Box and Whisker plot
* Scatter plot
* Bubble chart
* Stacked Bar Chart
* At least 2 custom calculations
* Profit/loss frequency by month

Sales Analysis to determine, regional performances, Segment and category relation to sales and profit.

Story-Plot: I’m an analyst in a superstore company. My boss has given me this Sample-Superstore dataset and asked me to do Sales Analysis to determine, regional performances, Segment and category relation to sales and profit. This will help to derive areas of improvement and resource management.

1. First and foremost, question after looking at the data, what are the total orders by states in each region?. As we can see, Rank, state name and then number of records by state are shown on the map setting. California is at topmost with 2001 sales orders, then comes 2. New York, 3. Texas, 4. Philadelphia, 5. Washington,6. Illinois, 7. Ohio, 8. Florida, 9. Arizona and 10. Virginia are among top ten states by sales.
2. I made a set named “Top ten states by sales” based on the above data. In my 2nd viz, I depicted top ten States by sales with profit or loss per unit on a Treemap to show all labels. Here, we have Top ten State by sales, Total Sales, Total Profit and profit per unit in the same order. As per the visual data, Texas, Illinois, Philadelphia, Ohio and Florida are facing loss. Though Texas is 3rd by sales, they’re having loss per unit by 14%.

1. Next question comes, What are the segments these top ten states having most sales in their respective regions? Seeing the data viz, you get an idea that consumer segment is undoubtedly ruling at the top except in Florida where Home Office has highest sales. If you see carefully, total sales in consumer segment is more compared to corporate segment in FL and VA but the corporate segment is having better sales\_quantity ratio percentage in corporate segment. Similarly, there’s little difference in total sales and sales\_quantity ratio percentage in different segments in IL, MI,NY,TX, and WA.
2. Now, curiosity takes me to see sales by segment in southern region states where I found that Consumer Segment is ruling again except in Alabama and Florida. In other words, Consumer segment is almost doing 75% of the business in the country.
3. Why not, let’s see segment distribution of Sales, quantity, profit and Discount in each region. As stacked bar is speaking for itself, Consumer segment is flourishing in all four measures in four regions with an exception of Profit measure in the Central region.
4. Okay, so what are the chances of technology category to affect profitability in different segment if we focus on it region wise. In the technology category, Consumer segment is 1st while corporate is making to 2nd position.
5. Now, we’ve one core info that Consumer segment is ruling. Let’s consider the profit per unit in top six states in different Segment & Category. I’ve taken top states by sales but filtered it to only top six states. Here again, Consumer segment is ahead with more interest in technology and office supplies category.
6. Lastly, Profit & Loss frequency by month of order date in Consumer segment. As it’s clear from the viz, profit was on its high in December 2016 in Consumer Segment.