Lessons Learned Document

This being my first database class, I did not come into the class with many expectations on what this class would encompass. Though through the many lectures, modules, videos, and assignments, this class has far surpassed my expectations and has allowed me to learn more about relational databases then I ever thought. I now have a tool set that allows me to be able to look at any databases for any platforms and have some sense of how it is set up. Creating a relational database can be a tedious process, but when done right, it can aggregate all the data you have into a clean and presentable view.

For Creating a relational database, the first thing that should be done is scoping out the data and getting a feel for it and its possible flows. Then one must try and determine how the relationships work as table and how they interact with each other. To do this, an ERD diagram and a metadata sheet are very useful tools that can assist you in visualizing your database. Besides these tools making sure that you can visualize the database, they make your life a lot easier within filling in information into your database. After you have finished your metadata worksheet, you will have the data types, constraints, and relationships all already completed and ready to place into your SQL server. The first steps with your database should be creating the database and then creating your tables that you want to use and their columns and types. Next, you will have certain columns that need certain constraints to make sure only correct data is being placed inside of them. After the tables, you should set up some views for the tables and interesting views that you want to be able to see. Then, you will be on your way to creating the stored procedures that allow for adding information into the databases. The final aspect for the database is security; you always want to make sure that the correct permissions set throughout your database so that your data is safe.

When presenting your tables to others, you need to be aware that others may not understand the relationships between the tables so the views are necessary so that you can display these relationships with clarity. There are views for every separate table, but then there are views that link the data together and present it on one table. Not only does this help them understand how the data is related, but this also disables others from directly changing the table and affecting it in ways that you did not intend. Another way you can present your data is through programs like Power BI, Tableau, and Excel. These programs allow you manipulate your data in many ways to create charts to give your data a visualization and understand what the data means.

This class has been beyond what I could have ever hoped for. I had previously thought of pursuing a career within the data analytics field, but after this class my thoughts have been solidified and I am currently on the search for a job within the field. Using all of this information and extra information that we have learned through all of the extra videos and readings I hope to have an upper hand over others in the industry and that I will be able to succeed within it. This class has given me a new way of looking at the data and I am so thankful for it.