CPT-244 Data Structure Final Project (20% Overall grades)
See the Weekly Schedule for due date

Each student will be required to create a robust Database application for your final project. The following is an overview, requirements and suggestions for this project. Your Database can be an Access Database, SQL Server Database, a Program that uses storage such as a text files, Or a Data Visualization Application such as Tableau.

Overview:

Create a comprehensive inventory transaction database, by your choice of organization. You may choose any business or makeup a business. You need to create all tables and **incorporate at least 2 large datasets that can be acquired from the DataSets Folder**. Make sure each table has its **primary keys** and establish **relationships** between tables as needed. These data sets can be very large and have many rows.

In order to create tables you need to know how many tables you need. For example, the company has Employees, Products and what's in the stock, maybe suppliers, and ….etc.

Use the Normalization methods to make sure you have right number of tables.

Use Referential integrity to make sure all your primary keys, foreign keys and relationships are accurate.

Use SmartDraw to do the ERD and Tables Descriptions for your database tables which will help you to have a working database.

- **Run a query to do a list of all Customers and their detail information.**

- **Run a query using two related tables to list some items.**

- **Run a query to combine the tables and store it into another table. (Make-table in access)**

- **Create a form of all Current Stock Inventory.**

- **Create a form for the current Products.**

- **Create a form to use multi tables.**

- **Create a Report for the low items inventory.**

- **Create a report of all the Vendors/Suppliers and their products.**

- **Create a report for daily Orders/Transaction list.**

- **Create a Macro, or some aumotated process to open all the above queries, forms, and reports.**

If your database is capable of generating the above Queries, forms, and reports and more, then you may have a robust inventory database.

Please create a folder called: **Lastname-Firstname-Final-Project** and place **your database** and all possible external files such as **SmartDraw file** that has the **ERD and Tables Descriptions** in the folder, zip it and submit it to the designated drop box in D2L.