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Assignment 2

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From a process point of view, thinking about the type of company we wanted to create was by far the most important decision. Before deciding to do a sunglasses retailers, we were thinking about using a professional sports team. We quickly realized that the core business of sports teams varies significantly across different sports, geographies, ownership structure, etc. Some high division sports teams have one sole incredibly wealthy owner who may not particularly care about the performance of the team, ticket and merchandise sales, advertising revenue, etc. whereas smaller-time owners and groups have more at stake in the team. We decided to simplify our approach and focus on sunglasses sales as the industry is growing steadily and new markets are forming around the world, particularly for premier brands, due to rises in income and living standards. Some people also see sunglasses as no longer something to solely protect one’s eyes in sunny geographies, but rather a way to highlight an individual’s status and fashion preferences. The tables and relationships we created for ABJ Sunglasses represent the core business as we have a customer, sales, supplier, territory, and product table. Keeping everything simple and logically easy to follow allowed us to populate the database with much more records without confusing ourselves or a third-party looking at our data set. We also did a good job of automating data entry process that would have taken very long if done manually, such as using a random number generator for customer phone and credit card numbers. In the future, we would try to add sophistication to make our business more realistic. For example, we could add an employee table to keep track of when employees’ are hired, their contact information, etc. or add a store table if the company decided to diversify away from just e-commerce. Also, we could improve the number of records by automating the process even further by using Python or another programming language. Automating data entry would have allowed us to have thousands of records which are likely more similar to what an actual small e-commerce retailer would have. Overall, we thought our process was strong as we were ambitious in that we went above the requirements regarding the number of tables and quantity of records, but we also did not go too far as to complicate matters.

Our team kicked off this assignment with a group meeting where we brainstormed what company we wanted to build the database around, how we were to divide the legwork and our method of communication. After deciding that building a database around a professional sports team would be too complex for the scope of the project, we chose to do a mock online sunglasses retailer, ABJ Sunglasses. Alden was in charge of the entity relationship diagram; Brett handled the database creation and population and John focused on querying. Once establishing these positions, we decided it would be best to have Alden draw drafts of our ERD on a whiteboard during the meeting so we could figure out what our database would include. By the end of our first meeting, we finalized our five tables and laid out the SQL work to follow. Throughout the week Alden worked on cleaning up the relationships between primary and foreign keys while Brett populated the database. Finally, once our database was complete, John worked on running queries to ensure its functionality. For the reflection piece, our group met in the library to discuss what we thought went well and what challenged us. In the ERD creation, Alden had some trouble in establishing non-redundant relationships between tables. In populating the database and querying, we ran into some issues surrounding the formatting of our SQL code, specifically foreign and primary keys. To tackle some of these formatting issues, our team was extremely attentive with communication, using Groupme as a platform to raise questions, provide input and establish meeting times. Also, we utilized Slack to reach out to Professor Li to help us troubleshoot any SQL errors. As a third resource, our group consulted the website: <https://www.w3schools.com/sql/default.asp>. If given the opportunity to re-start this assignment, our team would prioritize the coding of foreign and primary keys in the database population. Since this step proved to be more intuitive and time-consuming than some of the others, instead of assigning this to one team member, we would all work on it together. Overall, our group felt confident in our database and its functionality to access information. In the future it would be interesting to base our database off of a company that is looking to improve their business intelligence; having students write a report from the perspective of consultants.