**Reflection**

We are very glad that we started early (a full week earlier than due date) because this allowed us time to problem solve and deliver a quality report. We also made sure that our meeting times were close together and this way we were always focused on the topic. In the beginning we chose to brainstorm a variety of companies/industries to potentially use for this assignment. After discussing the pros and cons of multiple potential companies, we mutually decided to base our project on a very simple, imaginary, bookstore. This imaginary company is the perfect scope for this assignment because we were able to tailor the data to our needs. Furthermore, prior to building the database we chose to take a reverse approach. We first examined the types of queries we would have to demonstrate and we on purpose populated our tables in a manner that would allow for a simple and effective demonstration.

Although we believe our process was very efficient, we could have used GitHub instead of emailing each other the .sql files. This would have been more convenient and would have also provided us with a backup for worst case scenarios. Also, this would have allowed us to track the changes we made to our codes to create the database. This would have been beneficial because if we would have run into major errors, we could have reverted back to a previous version of the .sql file.

Our team process was also very efficient. We always worked together face-to-face, instead of working together remotely. This allowed for seamless and effective communication which accelerated the work process. We met in the library after our classes were done and we chose to meet for longer periods of time instead of more frequent shorter meetings. Also, we used three laptops, one for referencing the database design, one for writing the code, and the last for research / help. Since, we worked together for the majority of time, we didn’t need to divide much of the work. However, when it came to the time consuming task of creating imaginary data, we split up the tables and worked on the data entries individually. We also used a method to double check our work. For example, if Steve wrote the code, Stefanie would then check the code to ensure that no error has been overlooked.

The only issue we had while working together was less process oriented, but more technical. We struggled creating the foreign key relationships and so our efforts to build the database was hindered. We first spent an hour researching for a solution to this issue; however, we were unable to find one. Therefore, we decided to go to office hours at the earliest time possible, to make sure that we wouldn’t be leaving the project for the last minute. After solving this issue, we were good to go. A lesson we learned that would have been useful from the beginning was the importance of table order when creating a database. We needed to build from the outside in, in order to execute the foreign keys properly, and populate the data correctly.

If we were to do this project over again, we would definitely take advantage of GitHub for the afore mentioned reasons. Even though Facebook messenger worked for us, were we to be a larger group, we could have set up a Slack channel for a more streamlined conversation. These suggestions would ensure that all team members that are not able to meet on a face-to-face basis are fully informed, and up to date with all happenings concerning the project.

Overall, we managed this project efficiently and effectively. We remained positive and motivated throughout the multiple hours of coding and troubleshooting, and we believe that as a result, we delivered a quality product in the end. Going forward, we learned lessons about data design process and methodology, which is an essential skill in today’s data-driven business environment.