**Reflection:**

From a process point of view, our team successfully designed a relational database of the Toyota dealerships under Herb Chambers. At first, we analyzed what the possible tables are, as well as their corresponding columns/fields for the database of these dealerships. We did this in a way that accurately reflect the dealer's core business activity and we came up with Dealers, Sales Invoices, Inventory, Customer, Service Record, and Technician tables. Based on these designs, our team successfully implemented our designed database using the SQL statements. Then, we made queries in our database to answer the specific questions involved with this project. We did all of these step by step so that we completed our project in a very structural way, which was proven to be efficient and effective in the end. Additionally, each member was in charge of different tasks, allowing specialization of tasks. For future projects, we could improve our communication method better so that if one member gets stuck to a single problem, then the rest of the members can help him so that our entire work does not get interrupted due to a minor, individual problem.

We believe our project was appropriately scoped because our database reflects the core business of the typical car dealer, simplifying it by excluding other miscellaneous operations. Of course, in order to design our database, we studied the structure and operations of the Herb Chambers Toyota of Boston and Herb Chambers Toyota of Auburn, plus other car dealers in the area. While doing this, we learned of some areas of improvement that these dealerships can look to work with in order to increase efficiency of their operations.

If we can, our group wishes to deliver these dealers with a better database design for their organization. We believe this will maximize their operational efficiency by making their database simpler, consistent, and timely. Additionally, if we had more information/data on the daily operation of the dealer that are not seen by the consumers like ourselves, we could come up with a better database design at the beginning stage of our project.

Initially, our team assigned different roles to different team members. Beong Jo was in charge of creating the relational database design as well as writing the company background information and the second portion of the reflection. Yuxuan implemented the database our team designed using the SQL statements and made queries in that database. Chris was responsible for writing the first portion of the reflection as well as assisting Yuxuan in implementing the database. We kept track of one another’s work process by setting up certain deadlines so that we could finish in an efficient and timely manner.

Fortunately, each team member did what he was supposed to do on time so that there were not any specific issues that arose while working together. However, there was a communication problem at the early stage of the teamwork that everyone was aware of. We regarded this issue as a potentially serious problem as it could have hindered our ability to work closely as a team. Thus, we chose to communicate via Slack only in order to maximize the effectiveness and efficiency of our communication while working as a team. This improved our work quality drastically in a short time and also avoided unnecessary miscommunication among ourselves.

From the Database Project, we learned three things. First, we learned how to specify a foreign key in the database. We self-studied this from the w3scool.com. Secondly, we developed a better understanding of the data types in SQL, especially for the datatype of varchar, bigint, and date. Third, we learned how to develop a database and code as a group. It was important to understand how to exchange our ideas, and use Github to do group coding since we were not all readily available at the same times.

Generally, our team was very satisfied with our work throughout the completion of this project. However, if we had a chance to work on this project again, our team would work together throughout all parts of the project rather than splitting up each role by each person. By doing this all the team members can be involved at each part of the project. rather than focusing on his individual role.