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Business Intelligence and Data Analytics

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**Food Basket Reflection:**

We started our project by creating a relational database design. Initially, we created a database for a B2B eCommerce company which carried multiple products made up of 1-4 different components. However, for the purpose of simplification we decided to pivot our database to be that of a grocery store.

Our grocery store database consisted of five tables; Products, Order Line Items, Customer Orders, Suppliers, and Customers. By breaking out Order Line Items and Customer Orders, we were able to account for the fact that customers in a grocery store have the ability to create multiple orders and products have the ability to be purchased multiple times by different customers. This logic was not as clear in our initial eCommerce database, representing an overall improvement in our final database design. The clean structure of our grocery store database allowed us to create SQL queries that accurately reflect the businesses’ performance and address key business metrics such as orders in which the total order value exceeds that of the average customer order value.

Our grocery store database may have been further improved by adding additional information in our tables. For example, the Suppliers table in our database only had a Supplier ID and Name field, when it could have included more fields such as Wholesale Price. This Wholesale Price field would better illustrate the cost of the product to Food Basket and showcase the difference between what Food Basket charges customers and what they purchase it for.

Our team split deliverables instead of choosing to work together. This proved both helpful in some instances and difficult in others. For instance, one group member initially created a relational database for part one of the project, but this design was later vetoed by the group member responsible for parts two and three and replaced by the grocery store design which was easier to work with. It may be helpful in future projects for group members to work together while completing their own respective parts, thus creating synergy in the project flow and ensuring all team members are adequately engaged. There were additional issues which came up related to schedule conflicts amongst group members. These issues were resolved by communication over Slack and subsequent meetings after class.