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CSCI 343: Database Management

Project 1: Build a Relational Database: Friendly Cars Dealership

Explanation

The creation of the data dictionary was an easy component of this project however, time consuming. Due to technological problems, I had to rewrite the dictionary to its full extent along with some other components of the project. When it came to making variables, most of the ideas came easy with the project transcript, though it took time to add them all. In the later stages of my project, I found myself returning to the data dictionary with some frequency to add new variables to improve cohesion to the data dictionary. With the layout of the tables, as organized in the data dictionary, I intend for a view to be constructed to completely cover the material in the specified bill of sale so that the same variables are not created multiple times in different tables. The code to create this view is included with my select statements.

Creating the logical and relational diagrams did not present much trouble. From constructing both I became more familiar with the layout and abilities of the Oracle Data Modeler, having to sometimes perform research to determine how to complete certain tasks or have the diagram display properly.

Many of the problems I had arrived when I reached the point of adding tables to the database. I realized on several occasions that I had forgotten content or thought of another

column that would increase the understandability of the table. Another conflict I ran into was my own names for variables. There were ones such as owner, state, and month that were already reference words for the database, a fact that I failed to consider. The error codes thrown by the database were often vague, inaccurately identified the error, and not helpful in finding the source of error in a statement to create a large table. Some errors would claim invalid identifier or variable type and leave little reference as to where. Often I found myself tearing down my table creation statements only to find that the source of error was a misplaced or missing comma. The same problems persisted in inserts and selects. However, I feel as though I learned a lot in both the syntax of SQL and the use of Oracle's SQL Developer.

The organization of the tables did teach me to better choose better primary and foreign keys as well. With the tables such as DealershipFinances, I found that the primary key originally used, such as the dealershipID (included to accommodate if more dealerships are added in the future) in this case, only allowed for one financial report for the dealership overall. To correct this, a primary key was added to a report number variable, making each case unique.