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Database Final Project Normalization

1. First Normal Form (1NF) - A table is in 1NF if each row is unique and no column in any row contains multiple values
2. Second Normal Form (2NF) - A table is in 2NF if it is in 1NF and if it does not contain partial functional dependencies.
   1. Partial functional dependency: A non-prime column (attribute) of a table is functionally dependent on part of a candidate key.
3. Third Normal Form (3NF) - A table is in 3NF if it is in 2NF and if it does not contain transitive functional dependencies.
   1. Transitive functional dependency: A column that is not the primary key determines the contents of another column.

**1NF:** Normalizing to 1NF was not necessary. The tables were already in First Normal Form from their original inception, with each row being unique and no column in any row containing multiple values.

**2NF:** The tables were also already in Second Normal Form from their inception. Each entity is an independent entity that interacts with other entities as the car dealership conducts the wholesale operation. More appropriately, the contents and description of each entity are determined by itself, with the exception of the Deal which has a single-column primary key and is thus already in Second Normal Form. Foreign keys are used within each table to indicate where and how it is related to another table.

**3NF:** As with 2NF, the tables were in Third Normal Form from their inception. There are no non-prime columns that determine the contents of another column within any given table.

With the completion of this analysis, we can determine the database is in Third Normal Form.