Justin Tran

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INFO 330 Databases and Data Modeling

Assignment 05

Advanced SQL Programming

Introduction

This document is about views and functions. A professional database incorporates views and functions in the design. A professional database also incorporates transaction statement and stored procedures to make inserting, updating, and deleting data secure and able to be rollbacked if needed. Proper usage of these things make designing a database easier.

Question Responses

1. Constraints, views, functions, and stored procedures all keep a database secure and in order. They act as an abstraction layer between the user and the database. Constraints keep the table in order with no conflicts. Views, functions, and stored procedures are all premade SQL statements that make interaction with the table less complicated. Views create a virtual table, the abstraction layer mentioned, to keep the user from breaking the original table with any statements. Functions and stored procedures are also abstraction layers in that they are saved statements for the user.
2. Transaction statements are when something is done in SQL, such as deleting, inserting, or updating. In a stored procedure, transaction statements are placed to being, end, and rollback the procedure. Inside the store procedure, a transaction can start the procedure and end it if everything goes right. If there is an error however, the transaction statement can roll back the procedure, so the database integrity is not damaged. Transaction statements create a safe way to use stored procedures when interacting with the database.

Summary

Good usage of views, functions, constraints, and stored procedures will make interacting with a database much easier. Transaction statements will also make the creation and updating of databases easier as well. Without the aforementioned things, database design would be much more complicated and tedious.