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INFO 330 Databases and Data Modeling

Assignment 06

Process of Designing and Creating a Database

Introduction

This is how I go about designing and creating a relational database. Other people have their own methods, but this works for me.

Question Responses

1. The first and most important thing when designing a database is to think about what information the database will hold. How is the information related, is it normalized, what data types will they be, how do they fit together in different tables, etc. It can be helpful to draw up an Entity Relationship Diagram (ERD) or use a metadata spreadsheet to have everything organized. Once I am confident on what the database should look like, I go about making the database in SQL. The process of making the database can show me errors/redundancies I might have overlooked in the drafting phase. Perhaps some information overlaps and the normalization rules are not met. It is here that I can see that and correct those mistakes.

After the initial tables are set up in the database, I would go about with creating an abstraction layer. Making views, setting up permissions, creating user defined functions (UDFs) and stored transaction procedures will go a long way in a database. I can protect the integrity of the data and rollback any potential harmful things done in the database. With an abstraction layer, I can be confident that the database will be both accessible and protected at the same time.

Link to the blog: <https://jtran330.blogspot.com/>

It is the same blog as Assignment 05, here is a link to the specific post for this assignment:

<https://jtran330.blogspot.com/2020/02/process-of-designing-and-creating.html>

Summary

For now, this is how I would design a database. Perhaps in the future it will learn more on how to design an even better and secure database, but what I have outlined above fits my needs for a database.