

CPSC 2100 (Proj_02)

Monday, October 23rd

Due: Thursday, December 7th at 1:00pm

Assignment

Overview: For this project, you will design a simple, interactive application that interacts with a back-end database. In the first project, you have done the hard work of finding a dataset and completing the initial modeling + scoping of requirements. Now we want to provide access to the database by way of a front-end application. For full credit, you should satisfy the following requirements:

- Implement the database
 - Using the modeling and ER diagram from project one, create a Postgres database with the dataset that you selected.
 - Note: You do not have to manually populate the dataset with an INSERT INTO statement that is hundreds of lines long. You can write one or more functions that will take a file name as input and then calls a stored procedure to insert the data.
 - However you choose to create the database, you will have to provide a dump file using the [pg_dump](#) utility.
- Build an interactive application (language is open--Python or C#) that interacts with the dataset. This application must include the following:
 - Browse all records using pagination, as scrolling would be less useful with data of this size.
 - Sort by features.
 - Filter by features.
 - Incorporate at least one index to assist in the sorting/filtering. Any operation should execute in 10 milliseconds or less.
 - Implement at least two of the three following concepts: views, transactions, or triggers.
- Offer a 10-minute presentation that introduces the dataset, provides a brief demonstration of the application, and highlights steps that you took to optimize the performance of your application.