Milestone One Report

Just Another DB Group
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ABSTRACT:

Introduction:

The purpose of this project is to create a database that contains data on COVID-19 cases by state, zip code, and population demographics. This database is only conceptual and will not contain all demographic data in the United States but will demonstrate the usefulness and functionality of such a database.

Information Collection & Requirements:

- Each state, zip code, hospital, population, and each population subset have a total population, a number of patients that have the virus, and a number of patients who have recovered from the virus.
- Each state has a unique abbreviation (i.e., MO, KS, NY)
- Each zip code has a unique code and a state abbreviation corresponding to the state that zip code is located in.
- Each hospital is located in a zip code and has a maximum COVID occupancy.
- The population in each zip code has a median age, median income, and can be broken down by tax bracket and race/ethnicity.

Architecture:

We will be using a two-tier client-server architecture for our database. The client-side will be running an application program that accesses the server-side database. The server will house our RDBMS built using SQL. The server will also process transactions and queries that are given to it by the client-side machines.

Scope & Ideas:

This database offers experts and citizens alike information on COVID-19 cases. It provides COVID-19 case concerning geographic and population constraints. Patients visits to hospitals will be collected, in which that data will be added to the zip code and state respectively.

Platform:

For this project, we will be using the Community Edition of MySQL 8.0. Though MySQL comes with built-in command-line interfaces, the Workbench GUI provided by MySQL will serve as our primary interface, as it is far more user-friendly. The server running the MySQL instance will be accessible remotely and require password authentication.

Roles:

Caleb: database designer, system analysts
Suban: database designer, system analysts
Ethan: Application programmer, DBMS system designer and implementer
Andrew: Application programmer, DBMS system designer and implementer

These roles are large and general but will help establish what area people on the team will be focusing on. In reality, each team member may reach across their assigned roles to help fellow team members and

to better understand aspects of making and using a DBMS due to the small scale of our project. Most likely the Database Admin role will be split up between all of the team members due to this team's small size.