Danielle Emsley

Dec. 19, 2023

CIS 344 Database Design

This report highlights and provides a comprehensive review of the functionality of database systems. The code presented above shows the database system of hospital. A database is very useful for a business like a hospital because it keeps employees’ and patients’ orderly and safely. This code is designed to follow MySQL best practices, such as using parameterized queries to prevent SQL injection.

In the Portal Database, a class is implemented to handle the connection to a MySQL database. It utilizes methods for common operations such as adding patients, scheduling appointments, viewing appointments, and discharging patients. The methods adhere to best practices in terms of code structure, error handling, and data integrity.

The database is named hospital portal, and it starts off with three (3) tabled called patients, appointments, and doctors. As the database is being built, columns are being added with terms that are important for record keeping such as patient id, patient name, age and so on. The add patient method is responsible for inserting a new patient record into the patients’ table. It takes parameters such as patient name, age, admission date, and discharge date. Likewise, the schedule appointment method is designed to insert a new appointment record into the appointments table. It takes parameters such as patient id, doctor id, appointment date, and appointment time. Similar to the add patient method, this function uses specific parameters to ensure database security and integrity. Once the query is executed, then the changes are made.

On the other hand, the view appointments method retrieves and prints all appointment records from the appointments table. It employs a simple SELECT query which is used to fetch data and printed in a readable format. This method is useful for obtaining an overview of all scheduled appointments.

In conclusion, the hospital portal database class provides a well-structured and secure interface for employees to interact with on a daily basis. The use of parameterized queries and proper error handling ensures that the code is reliable and secure. This implementation can serve as a foundation for further development and integration into a broader hospital management system.