

**UNIVERSITY OF GHANA**

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# Course Code and Title: CPEN 211 DATABASE SYSTEM DESIGN

**GROUP 2**

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**PROJECT 1 DOCUMENTATION**

**Project**: Creating a library and resource management system for the school of Engineering using PostgreSQL.

**Procedure**

1. Design the database schema. This will involve creating tables to store information about books, slides, authors, past questions, course outlines and patrons, and defining relationships between the tables. For example, you could have a table for books with columns for title, author, ISBN, etc., and a table for authors with columns for name, bio, etc. All the resources are to be made available for the various courses from level 100 through to level 400.
2. Create the tables and relationships in PostgreSQL using SQL commands. You can use the CREATE TABLE command to create tables, and the FOREIGN KEY constraint to define relationships between tables.
3. Populate the tables with sample data. You can use the INSERT INTO command to add data to the tables.
4. Create a user interface. This could be a web application or a command-line interface that allows users to perform actions such as searching for books, course slides, past questions, and other course materials. You will use SQL commands to interact with the database to perform these actions.
5. Test the system by performing different operations such as searching for a book, checking out a book, obtaining past questions, and so on.
6. Once you have completed and tested your library and resource management system, you can then share it with others so that they can also use it.