Week 11 Concepts Assignment

CS441

*This is exercises based on the textbook ones for Chapters 16 & 17. Note, there are additional steps or requirements that might not be in the book, or steps removed from the book, so be sure to follow this document vs directly following the textbook.*

*Note, all required student files are located in the Week 1 Module of Canvas. Look for the “Student Download files” and add to your htdocs folder. Remember that the weekly code will be copied back and forth from your local Github repository and the htdocs folder.*

*Before starting, make sure to copy the directories “book\_apps” and “ex\_starts” to your local computer in the following directory: C:\*xampp\htdocs\

***With lab PCs, make sure to back up any incomplete work to your U drive!***

**Instructions:**

# Exercise 16-1 Create a database diagram from a SQL script

In this exercise, you can draw a database diagram by hand on a piece of paper. Or, if you prefer, you can use any software you want to help you create this diagram.

1. Use a text editor such as Notepad++ or BBEdit to open this SQL Script: htdocs/book\_apps/\_create\_db/my\_guitar\_shop1.sql
2. Review the CREATE TABLE statements that are used to create the categories and product tables.
3. Create a diagram that shows these two tables and their columns. Be sure to identify the primary key of each table.
4. Add a line with connectors that shows the one-to-many relationship between the categories and products tables.
5. Make sure to place this diagram in your Week 11 Github repository.

# Exercise 17-1 Create a database and alter it

In this exercise, you will run a script that creates a database named my\_guitar\_shop2. Then, you will create your own script that contains some statements that alter that database.

## Create a database by executing an existing script

1. Use a text editor to open the script named my\_guitar\_shop2.sql that’s stored in the book\_apps/\_create\_db directory.
2. Review the code and note how it creates the database named my\_guitar\_shop2.
3. Use phpMyAdmin to execute this script as shown in chapter 3. Then, view the structure of the database.

## Create a script that alters the database

1. Use your text editor to create a file named customers\_alter.sql that you’ll use for storing a script.
2. Write an ALTER TABLE statement that adds a column named middleInitials to the customers table. This column should store up to 3 characters, allow NULL values, and be added after the firstName column. Paste your code or a screenshot below of your SQL code.
3. Write an ALTER TABLE statement that modifies the customers table so the lastName column can store up to 100 characters. Paste your code or a screenshot below of your SQL code.
4. Use phpMyAdmin to test this script. Then, use phpMyAdmin to view the structure of the database. Check to make sure the middleInitials column has been added and that the data type for the lastName column has been changed. Capture a screenshot of your phpMyAdmin screen.

***Commit this document and all edited code to your Week 11 Github repository by the deadline. Any late work must be communicated.***

***(Make sure the different chapters are in different fodders to prevent confusion.)***