Murach 4e Chapter 10 Coding Assignment Instructions

Exercises to be Completed
Complete exercises as follows:

- Exercises 1 and 2 are regular exercises.
- Exercise 3 is a challenge exercise.

General Instructions
My expectations for your work on coding assignment exercises will grow as we progress through the course. In addition to applying any new coding techniques that have been covered in the current chapter, I will be expecting you to follow all of the good practices that we have adopted in the preceding weeks. Here is a quick summary of good practices that we have covered so far:

- Begin each script file that accesses the database with a USE statement (e.g., USE my_guitar_shop;).
- Use the *beautify* feature of the MySQL Workbench to *pretty-print* your code.
- End each statement in your script with a semicolon.
- Use the SQL features requested in the exercise description and/or covered in the chapter.
- Always include an ORDER BY in SELECT statements unless directed otherwise. If the exercise instructions ask for a particular order, then use that. Otherwise, choose any reasonable order.
- In SELECT statements that use JOIN, always use the explicit (SQL-92) JOIN syntax implemented in the FROM clause. Do NOT use the implicit JOIN syntax implemented using the WHERE clause.
- Do NOT include extra or unnecessary code in the script.

Tools
Use MySQL Workbench to create and test all scripts.

Submission Method
Use the following process to submit your work for this assignment:

- Locate the properly named directory associated with your assignment in the file system (see *File and Directory Naming,* below).
- Compress that directory into a single .ZIP file using a utility program. NOTE: Only one file may be submitted. File types other than .ZIP will not be graded.
- Submit the properly named .ZIP file to the submission activity for this assignment.

File and Directory Naming
Please note that file and directory names must be in all lower case. Deductions will be made for submissions that do not follow this standard.

Please use the following naming scheme for the directory that holds your scripts:

`surname_givenname_mgs_chap_10`

If this were my own project, I would name my PyCharm project as follows:

`trainor_kevin_mgs_chap_10`

A separate solution script file must be submitted for each exercise. Solution scripts must be named using the following form: ex_xx_yy.sql (where xx is the two-digit chapter number [04] and yy is the two-digit exercise number [01]). So, an example of a properly formed solution script file example would be:

`ex_10_01.sql`

Use a zip utility to create one zip file that contain the PyCharm project directory. The zip file should be named according to the following scheme:

`surname_givenname_mgs_chap_10.zip`

If this were my own project, I would name the zip file as follows:

`trainor_kevin_mgs_chap_10.zip`

Due By
Please submit this assignment by the date and time shown in the Weekly Schedule.

Last Revised
2025-03-02

Please see the exercises on the attached sheets!

Chapter 10
How to design a database

Exercises

1. Use MySQL Workbench to create an EER model from the script file named create_my_guitar_shop.sql that's in the mgs_ex_starts folder.

   From the model, create an EER diagram that shows the relationships between the seven tables in the database. (The administrators table is not related to the other six tables.)

   Print the diagram as a PDF and submit it as ex_10_01.pdf

2. Use MySQL Workbench to create an EER model for a database that stores information about the product downloads that users make. (When you create the EER model, it will be given a default name of mydb. For this exercise, it's not necessary to change this name.) Define the tables that are necessary to implement this data structure:

   Each user must have an email address, first name, and last name.

   Each user can have one or more downloads.

   Each download must have a filename and download date/time.

   Each product can be related to one or more downloads.

   Each product must have a name.

   When you're done defining the tables, create a diagram for the database. Then, use the diagram to define the required relationships. When you do that, be sure to use the relationship button that uses existing columns.

   Hint: This database will have a classic three-table design like the design for the classic database of order, item, and order_item.

   Save the database model and submit it as ex_10_02.mwb.

3. Use MySQL Workbench to open the EER model that you created in exercise 2. Then, export a script that creates the database. Use all the default options, and save the script in a file named ex_10_03.sql. Next, use MySQL Workbench to open this file and review it.