CIS 182 – SQL Fundamentals – Winter 2024

W2 Exercises: SQL Server Management Studio

(For the due date, please refer to this lab’s posting on Canvas)

Before you start the exercises…

Before you start these exercises, you need to install SQL Server and the SQL Server Management Studio. The procedures for doing both of these tasks are provided in appendix A of the book.

In addition, you’ll need to get the MC Exercise Starts directory from your instructor. This directory contains some script files that you need to do these exercises.

Exercises

In these exercises, you’ll use SQL Server Management Studio to create the MurachCollege database, to review the tables in the MurachCollege database, and to enter SQL statements and run them against this database.

Create the database

1. Start SQL Server Management Studio and open a connection using either Windows or SQL Server authentication.
2. Open the script file named CreateMurachCollege.sql that’s in the MC Exercise Starts directory by clicking the button in the toolbar and then using the resulting dialog box to locate and open the file.
3. Execute the entire script by clicking the button in the SQL Editor toolbar or by pressing F5. When you do, the Messages tab indicates whether the script executed successfully.

Review the database

1. In the Object Explorer window, expand the node for the database named MurachCollege so you can see all of the database objects it contains. If it isn’t displayed in the Object Explorer window, you may need to click on the Refresh button to display it.
2. View the data for the Courses and Instructors tables.
3. Navigate through the database objects and view the column definitions for at least the Courses and Instructors tables.

Please paste a screenshot of the Object Explorer window in your MSSM Studio showing the **MurachCollege** database and the objects you navigated to.

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Enter and run SQL statements

1. Open a new Query Editor window by clicking the button in the toolbar. Then, select the MurachCollege database from the Available Databases dropdown menu () to choose it as the default database.
2. Enter and run this SQL statement:

SELECT CourseDescription FROM Courses

Please paste a screenshot of your Query Editor window showing the SQL statement and the result.

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1. Delete the s at the end of Courses and run the statement again. Note the error number and the description of the error.

Please paste a screenshot of your Query Editor window showing the SQL statement and the result.

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1. Open another Query Editor window and then enter and run this statement:

SELECT COUNT(\*) AS NumberOfInstructors

FROM Instructors

Please paste a screenshot of your Query Editor window showing the SQL statement and the result.

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Open and run scripts

1. Open the script named InstructorDetails.sql that’s in the MC Exercise Starts directory. Note that this script contains just one SQL statement. Then, run the statement.

Please paste a screenshot of your Query Editor window showing the script and the result.

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1. Open the script named InstructorSummary.sql that’s in the MC Exercise Starts directory. Note that this opens another Query Editor window.
2. Open the script named InstructorStatements.sql that’s in the MC Exercise Starts directory. Notice that this script contains two SQL statements that end with semicolons.
3. Press the F5 key or click the Execute button to run both of the statements in this script. Note that this displays the results in two Results tabs. Make sure to view the results of both SELECT statements.

Please paste a screenshot of your Query Editor window showing the code and result for the script from exercise 12.

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Please paste a screenshot of your Query Editor window showing the code and result for the script from exercise 13.

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15. Exit from SQL Server Management Studio.

1. Create a database diagram that shows the relationships between the six tables in the MurachCollege database. (The Tuition table is not related to the other five tables.)

Please paste a screenshot of your diagram window below.

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1. Design a database diagram for a database that stores information about the downloads that users make from a book website.

- 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 book can be related to one or more downloads.

- Each book must have a name.

Please paste a screenshot of your diagram window below.

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