CIS 182 – SQL Fundamentals – Winter 2024

W7 Exercises: Insert, Update, Delete

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

To test whether a table has been modified correctly as you do these exercises, you can write and run an appropriate SELECT statement.

Exercises

1. Write an INSERT statement that adds this row to the Departments table:

* DepartmentName: History

Code the INSERT statement so SQL Server automatically generates the value for the DepartmentID column.

Please paste a text copy of your SQL statement in the box below

|  |
| --- |
| *Code text* |

Please paste a screenshot of the query result in the box below.

|  |
| --- |
| *Result screenshot* |

1. Write a single INSERT statement that adds these rows to the Instructors table:

|  |  |
| --- | --- |
| * InstructorID: | The next automatically generated ID |
| * LastName: | Benedict |
| * FirstName: | Susan |
| * Status: | P |
| * DepartmentChairman: | 0 |
| * HireDate: | Today’s date |
| * AnnualSalary: | 34000.00 |
| * DepartmentID: | 9 |
|  |  |
| * InstructorID: | The next automatically generated ID |
| * LastName: | Adams |
| * FirstName: | null |
| * Status: | F |
| * DepartmentChairman: | 1 |
| * HireDate: | Today’s date |
| * AnnualSalary: | 66000.00 |
| * DepartmentID: | 9 |

Write this statement without using a column list.

Please paste a text copy of your SQL statement in the box below

|  |
| --- |
| *Code text* |

Please paste a screenshot of the query result in the box below.

|  |
| --- |
| *Result screenshot* |

1. Write an UPDATE statement that modifies the first instructor you added in exercise 2. This statement should change the AnnualSalary column from 34,000 to 35,000, and it should use the InstructorID column to identify the row.

Please paste a text copy of your SQL statement in the box below

|  |
| --- |
| *Code text* |

Please paste a screenshot of the query result in the box below.

|  |
| --- |
| *Result screenshot* |

1. Write a DELETE statement that deletes the second instructor you added in exercise 2. This statement should use the InstructorID column to identify the row.

Please paste a text copy of your SQL statement in the box below

|  |
| --- |
| *Code text* |

Please paste a screenshot of the query result in the box below.

|  |
| --- |
| *Result screenshot* |

1. Write a DELETE statement that deletes the row in the Departments table that has an ID of 9. When you execute this statement, it will produce an error since the department has related rows in the Instructors table. To fix that, precede the DELETE statement with another DELETE statement that deletes all instructors in this department.

Please paste a text copy of your SQL statement in the box below

|  |
| --- |
| *Code text* |

Please paste a screenshot of the query result in the box below.

|  |
| --- |
| *Result screenshot* |

1. Write an UPDATE statement that increases the annual salary for all instructors in the Education department by 5%. To do that, join the Departments and Instructors tables and then filter the rows by the department name.

Please paste a text copy of your SQL statement in the box below

|  |
| --- |
| *Code text* |

Please paste a screenshot of the query result in the box below.

|  |
| --- |
| *Result screenshot* |

1. Write a DELETE statement that deletes instructors that aren’t teaching any courses. To do that, use a subquery in the WHERE clause.

Please paste a text copy of your SQL statement in the box below

|  |
| --- |
| *Code text* |

Please paste a screenshot of the query result in the box below.

|  |
| --- |
| *Result screenshot* |

1. Open the script named CreateGradStudents.sql that’s in the MC Exercise Starts directory. Run this file to create a table named GradStudents. This table has the same columns as the Students table, but the StudentID column isn’t defined as an identity column.

Please paste a screenshot of your Object Explorer Window showing the GradStudents table expanded.

|  |
| --- |
| *Result* |

1. Write an INSERT statement that inserts rows from the Students table into the GradStudents table. Include only the rows for students that have graduated, and don’t use a column list.

Please paste a text copy of your SQL statement in the box below

|  |
| --- |
| *Code text* |

Please paste a screenshot of the query result in the box below.

|  |
| --- |
| *Result screenshot* |

1. Open the script named CreateMurachCollege.sql that’s in the MC Exercise Starts directory. Then, run this script. That should restore the data that’s in the database. If an error message is displayed indicating that the database is in use, you’ll need to close and restart the Management Studio and then run the script again.