CIS 182 – SQL Fundamentals – Winter 2024

W3 Exercises: Retrieving Data from a Single Table

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

Exercises

In these exercises, you’ll enter and run your own SELECT statements.

*Note: When writing your SQL code, please follow the formatting convention shown in the file: “CIS182 SQL Code Formatting Examples”.*

1. Write a SELECT statement that returns all of the columns from the Courses table. Then, run this statement to make sure it works correctly.

Please paste a screenshot of your SQL code and result in the boxes below.

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

1. Write a SELECT statement that returns three columns from the Courses table: CourseNumber, CourseDescription, and CourseUnits. Then, run this statement to make sure it works correctly.

Please paste a screenshot of your SQL code and result in the boxes below.

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

Add an ORDER BY clause to this statement that sorts the result set by CourseNumber in ascending sequence. Then, run this statement again to make sure it works correctly. This is a good way to build and test a statement, one clause at a time.

Please paste a screenshot of your SQL code and result in the boxes below.

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

1. Write a SELECT statement that returns one column from the Students table named FullName that joins the LastName and FirstName columns.

Format this column with the last name, a comma, a space, and the first name like this:

Doe, John

Sort the result set by last name in ascending sequence.

Return only the students whose last name begins with a letter from A to M.

Please paste a screenshot of your SQL code and result in the boxes below.

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

1. Write a SELECT statement that returns these column names and data from the Instructors table:

LastName The LastName column

FirstName The FirstName column

AnnualSalary The AnnualSalary column

Return only the rows with an annual salary that’s greater than or equal to 60,000.

Sort the result set in descending sequence by the AnnualSalary column.

Please paste a screenshot of your SQL code and result in the boxes below.

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

1. Write a SELECT statement that returns these column names and data from the Instructors table:

LastName The LastName column

FirstName The FirstName column

HireDate The HireDate column

Return only the rows with a hire date that’s in 2019.

Sort the result set in ascending sequence by the HireDate column.

Please paste a screenshot of your SQL code and result in the boxes below.

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

1. Write a SELECT statement that returns these column names and data from the Students table:

FirstName The FirstName column

LastName The LastName column

EnrollmentDate The EnrollmentDate column

CurrentDate The current date

MonthsAttended A column that’s calculated by getting the difference between the enrollment date and the current date

To get the value of the months attended, use the DATEDIFF function with the month argument.

Sort the result set in ascending sequence by the MonthsAttended column.

Please paste a screenshot of your SQL code and result in the boxes below.

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

1. Write a SELECT statement that returns these column names and data from the Instructors table:

FirstName The FirstName column

LastName The LastName column

AnnualSalary The AnnualSalary column

Return only the top 20 percent of instructors based on annual salary.

Please paste a screenshot of your SQL code and result in the boxes below.

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

1. Write a SELECT statement that returns these column names and data from the Students table:

LastName The LastName column

FirstName The FirstName column

Return only the rows where the LastName column starts with the letter 'G'. To do that, use the LIKE phrase.

Sort the result set by last name in ascending sequence.

Please paste a screenshot of your SQL code and result in the boxes below.

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

1. Write a SELECT statement that returns these column names and data from the Students table:

LastName The LastName column

FirstName The FirstName column

EnrollmentDate The EnrollmentDate column

GraduationDate The GraduationDate column

Return only the rows where the EnrollmentDate column is greater than 12-01-2019 and the GraduationDate column contains a null value.

Please paste a screenshot of your SQL code and result in the boxes below.

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

1. Write a SELECT statement that returns these columns and data from the Tuition table, along with a constant value and two calculated values:

FullTimeCost The FullTimeCost column

PerUnitCost The PerUnitCost column

Units 12

TotalPerUnitCost A column that’s calculated by multiplying the per unit cost by the units

TotalTuition A column that’s calculated by adding the full-time cost to the total per unit cost

Please paste a screenshot of your SQL code and result in the boxes below.

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