

MSBA 5223 – Database Foundations

Assignment 3

The purpose of this assignment is to help you practice the following skills that are essential to your success in this course and in your professional life beyond school if you have the opportunity to work with databases.

- Code SELECT statements that require any of the language elements presented in this chapter or previous chapters.

Another purpose of this assignment is for you to possibly struggle and feel confused while you apply what you have learned in a slightly different context than what was provided in examples. This will allow you to internalize the use of the various techniques and develop your own approach for addressing problems. The purpose is NOT to make you struggle overmuch and hit your head against a brick wall. If you don't know why something isn't working, ask! If you are not sure why something is doing something other than you expected, ask. I am here to help you learn.

Notes about submitting your assignment:

Instructions on submitting are detailed in assignment 2.

Be sure to save your document periodically. When you have finished the assignment, save the document as a PDF.

Each answer is weighted equally and is worth 10 points.

Execute Queries to Retrieve Information from the MurachCollege Database

1. Write a SELECT statement that joins the Courses table to the Departments table and returns these columns:
CourseNumber, CourseDescription, DepartmentName.
Use table aliases.
Sort the result set by DepartmentName and then by CourseNumber in ascending order.

Paste your entire query into Word.

Use the Snipping Tool to capture the results area of your query. Paste it into your Word document as Answer #1.

2. Write a SELECT statement that joins the Instructors table to the Courses table and returns these columns:
LastName, FirstName, CourseNumber, CourseDescription.
Use table aliases.
Return all courses for each instructor with a status of "P" (part time).
Sort the result set by LastName and then by FirstName in ascending order.

Paste your entire query into Word.

Use the Snipping Tool to capture the results area of your query. Paste it into your Word document as Answer #2.

MSBA 5223 – Database Foundations
Assignment 3

3. Write a SELECT statement that joins the Departments, Courses, and Instructors tables. This statement should return these columns: DepartmentName, CourseDescription, FirstName, and LastName (of the instructor for the class).

Use aliases for the tables, and return only those courses with three units.

Sort the result set by DepartmentName and then by CourseDescription in ascending sequence.

Paste your entire query into Word.

Use the Snipping Tool to capture the results area of your query. Paste it into your Word document as Answer #3.

4. Write a SELECT statement that joins the Departments, Courses, StudentCourses, and Students tables. This statement should return these columns: DepartmentName, CourseDescription, LastName, and FirstName (of the student taking the course).

Use table aliases.

Return all courses in the English department. Do NOT write a separate query to find the DepartmentID of the English department.

Sort the result set by DepartmentName and then by CourseDescription in ascending sequence.

Paste your entire query into Word.

Use the Snipping Tool to capture the results area of your query. Paste it into your Word document as Answer #4.

5. Write a SELECT statement that returns these columns:

InstructorDept	The DepartmentName column from the Departments table for a related instructor
LastName	The LastName column from the Instructors table
FirstName	The FirstName column from the Instructors table
CourseDescription	The CourseDescription column from the Courses table
CourseDept	The DepartmentName column from the Departments table for a related instructor

Return one row for each course that's in a different department than the department of the instructor assigned to teach that course. (Hint: You will need to join the Departments table to both the Instructors table and the Courses table, which will require you to use table aliases to distinguish the two tables.)

Paste your entire query into Word.

Use the Snipping Tool to capture the results area of your query. Paste it into your Word document as Answer #5.

Execute Queries to Retrieve Information from the AdventureWorks database

6. List all employees with their ID, last name, first name, job title, and date of birth. Sort the list by their last name, then their first name. You will use **HumanResources.Employee** and **Person.Person**. Use table aliases.

Paste your entire query into Word.

Use the Snipping Tool to capture the results area of your query. Paste it into your Word document as Answer #6.

7. List the top 5 sales people based on the YTD sales. Include their name in the format **lastname, firstname**, i.e. Williams, Terry. Include the SalesYTD and their commission YTD. Make sure all columns have names. You will use **Sales.SalesPerson** and **Person.Person**. Use table aliases.

Paste your entire query into Word.

Use the Snipping Tool to capture the results area of your query. Paste it into your Word document as Answer #7.

8. List the names of all employees, their job title, and date of birth. The names should be in a single column in the format of first name and then last name. There should only be one space between the first and last names. This column should be called **EmployeeName**. Include the employee's first address line, their city, state and postalcode concatenated together appropriately and called **CSZ**, their phone number and the type of phone number. You will use the following tables **IN THIS ORDER**.

HumanResources.Employee

Person.Person

Person.BusinessEntityAddress

Person.Address

Person.StateProvince

Person.PersonPhone

Person.PhoneNumberType

This is a total of 7 tables in the query. You may need to view the data in all of the tables, paying attention to column names to determine how to join them. **Use table aliases!**

Paste your entire query into Word.

Use the Snipping Tool to capture the Results area of your query. Paste it into your Word document as Answer #8.

9. Create and execute a new query that will list the BusinessEntityID, FirstName, MiddleName, and LastName of all the employees whose last name starts with an Z and whose first name starts with an E or an I or a N and contains exactly 6 characters. Do NOT use any functions not covered in class or in the textbook chapters 1-4. The LEN() function is not in these chapters.

Paste your entire query into Word.

Use the Snipping Tool to capture the results area of your query. Paste it into your Word document as Answer #9.

MSBA 5223 – Database Foundations
Assignment 3

10. Create an email list that includes Employee name in the format Lastname, Firstname and the employee's email address. The employee name column should be called EmployeeName. The email address column should be called Email. Create this list only for the Executive General and Administration **group**. Do NOT do a separate query to find department ids for this group. Look at the data! Sort it by the employee's last name. You will use the following tables in the following order:

HumanResources.Employee
Person.Person
HumanResources.EmployeeDepartmentHistory
HumanResources.Department
Person.EmailAddress

Before you start, look at the HumanResources.EmployeeDepartmentHistory table. How do you know which department someone is **currently** in? (Look at StartDate and EndDate.) Start working by writing and executing a query that will give you a list of employees and their current department. HINT: This should give you the same number of total rows that you get when selecting all the rows from HumanResources.Employee. Filter this so that you only have the Executive General and Administration **group**.

Then add in the Person.Person, Person.EmailAddress. Be sure to have them in the order listed above.

Your answer should have 35 rows.

Paste your entire query into Word.
Use the Snipping Tool to capture the results area of your query. Paste it into your Word document as Answer #10.

Make sure your name is on your document. Submit the one document **as a PDF** to the Assignment - Assignment 3.