

MSBA 5223 – Database Foundations

Assignment 2

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.

- Use the Management Studio to run, open, and save SQL queries.
- 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:

You will create a working document in word processing. **The assignment name, i.e. Assignment 2, and your name must be at the top of every page.** If you do not know how to do this in a header, ask me.

You will see a text box similar to the following each time you should put something in the document.

Answer #X

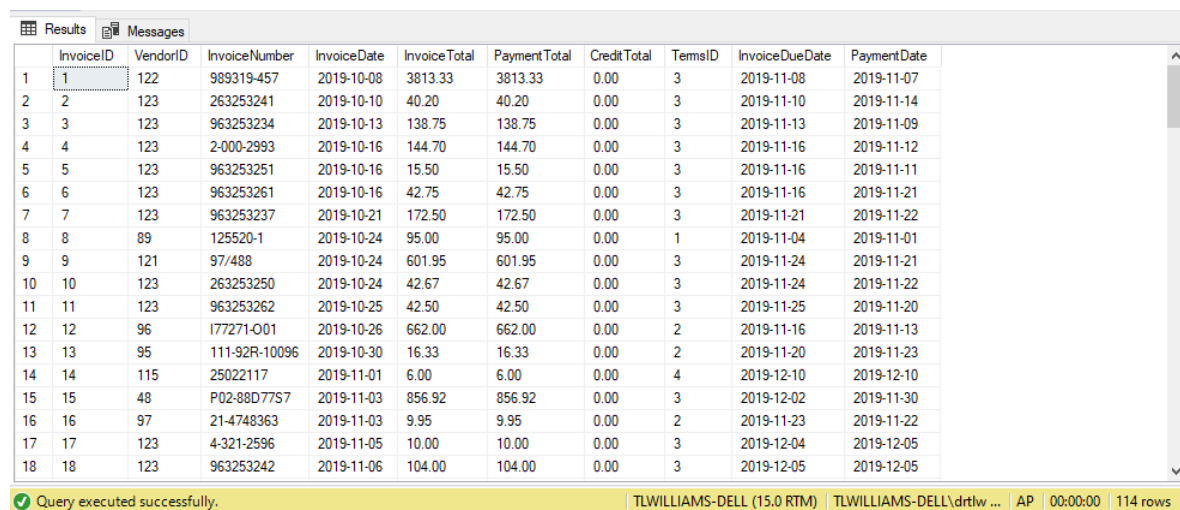
Paste your entire query into Word. Be sure to keep the color-coding.

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

First, make sure that your answer is numbered in the word document and make sure that all your answers are in order. There are multiple ways to easily do this. I want to see the number of the answer **BEFORE** I see your query and/or screenshot.

When you are asked for the query, copy it from SSMS and paste it into your document. It should keep the color-coding. In MS Word, this will be an option when you are pasting.

When asked for the results, I want to see something similar to the following:



	InvoiceID	VendorID	InvoiceNumber	InvoiceDate	InvoiceTotal	PaymentTotal	CreditTotal	TermsID	InvoiceDueDate	PaymentDate
1	1	122	989319-457	2019-10-08	3813.33	3813.33	0.00	3	2019-11-08	2019-11-07
2	2	123	263253241	2019-10-10	40.20	40.20	0.00	3	2019-11-10	2019-11-14
3	3	123	963253234	2019-10-13	138.75	138.75	0.00	3	2019-11-13	2019-11-09
4	4	123	2-000-2993	2019-10-16	144.70	144.70	0.00	3	2019-11-16	2019-11-12
5	5	123	963253251	2019-10-16	15.50	15.50	0.00	3	2019-11-16	2019-11-11
6	6	123	963253261	2019-10-16	42.75	42.75	0.00	3	2019-11-16	2019-11-21
7	7	123	963253237	2019-10-21	172.50	172.50	0.00	3	2019-11-21	2019-11-22
8	8	89	125520-1	2019-10-24	95.00	95.00	0.00	1	2019-11-04	2019-11-01
9	9	121	97/488	2019-10-24	601.95	601.95	0.00	3	2019-11-24	2019-11-21
10	10	123	263253250	2019-10-24	42.67	42.67	0.00	3	2019-11-24	2019-11-22
11	11	123	963253262	2019-10-25	42.50	42.50	0.00	3	2019-11-25	2019-11-20
12	12	96	177271-001	2019-10-26	662.00	662.00	0.00	2	2019-11-16	2019-11-13
13	13	95	111-92R-10096	2019-10-30	16.33	16.33	0.00	2	2019-11-20	2019-11-23
14	14	115	25022117	2019-11-01	6.00	6.00	0.00	4	2019-12-10	2019-12-10
15	15	48	P02-88D77S7	2019-11-03	856.92	856.92	0.00	3	2019-12-02	2019-11-30
16	16	97	21-4748363	2019-11-03	9.95	9.95	0.00	2	2019-11-23	2019-11-22
17	17	123	4-321-2596	2019-11-05	10.00	10.00	0.00	3	2019-12-04	2019-12-05
18	18	123	963253242	2019-11-06	104.00	104.00	0.00	3	2019-12-05	2019-12-05

This is very easy to do with the new Snip & Sketch in Windows 10. Shft-WindowKey_S will enable it. Notice that it is only the **results** area of SSMS. Notice that the entire status bar is displayed at the bottom. Sometimes it is not

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possible to capture all the rows in one results screen. The status bar gives me the total rows along with other information that I require. If the status bar is missing from your screen shot and I cannot read it across, it will not count as an answer.

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

Submit the PDF to the assignment.

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.

Submit the PDF to the assignment.

Execute Queries to Retrieve Information from the Murach College Database

First, you will need to restore the MurachCollege database backup that is available on D2L.

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.

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

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

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.

3. 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.

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.

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

LastName
FirstName
AnnualSalary

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.

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 column names and data from the Instructors table:

LastName
FirstName
HireDate

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

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

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.

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

FirstName
LastName
EnrollmentDate
CurrentDate

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.

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.

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

FirstName
LastName
AnnualSalary

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

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

LastName
FirstName

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.

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

LastName
FirstName
EnrollmentDate
GraduationDate

Return only the rows where the EnrollmentDate column is greater than 12-01-2019 (Dec 1) and the GraduationDate column contains a null value.

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.

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

FullTimeCost

PerUnitCost

Units a constant value of 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

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.

11. Make sure your name is on your document. Submit the one document **as a PDF** to the Assignment - Assignment 02.