

## Unit 02 Instructions - Intro to Relational Databases and the Structured Query Language

### Introduction to Enterprise Relational Databases

## Instructions

Read these instructions all the way through before you start.

Download the answer document. Be sure to put your name at the top of the answer document where that's indicated. Answer the questions below in that document and when you are done, upload it into Blackboard.

## Overview

This unit is an introduction to querying a database using the SQL SELECT statement. This is a powerful and versatile statement for retrieving information from a database.

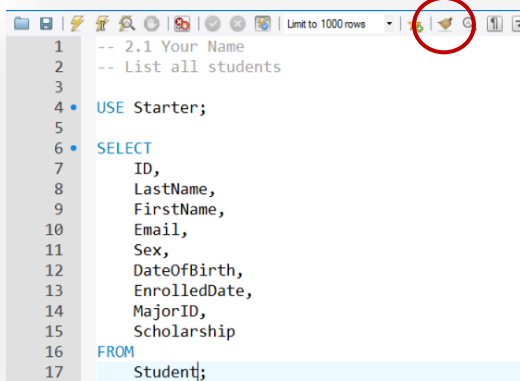
## Beautifying Your SQL

Here's a SQL statement in two different "looks." Either of these examples are perfectly valid syntactically and both will execute fine and produce the same results.

### *Not so Beautiful*

```
SELECT ID, LastName, FirstName, Email, Sex, DateOfBirth, EnrolledDate, MajorID, Scholarship FROM Student ;
```

### *Awesomely Beautified*



```
1  -- 2.1 Your Name
2  -- List all students
3
4  • USE Starter;
5
6  • SELECT
7      ID,
8      LastName,
9      FirstName,
10     Email,
11     Sex,
12     DateOfBirth,
13     EnrolledDate,
14     MajorID,
15     Scholarship
16 FROM
17     Student;
```

The circled Paint Brush icon will “beautify” your SELECT statment in a single click. It puts clauses on their own lines (SELECT, FROM, etc.), indents nicely and it capitalizes all the keywords. Please beautify all your SQL before submitting it in homework. There's a one point deduction on each SQL that's not beautified.

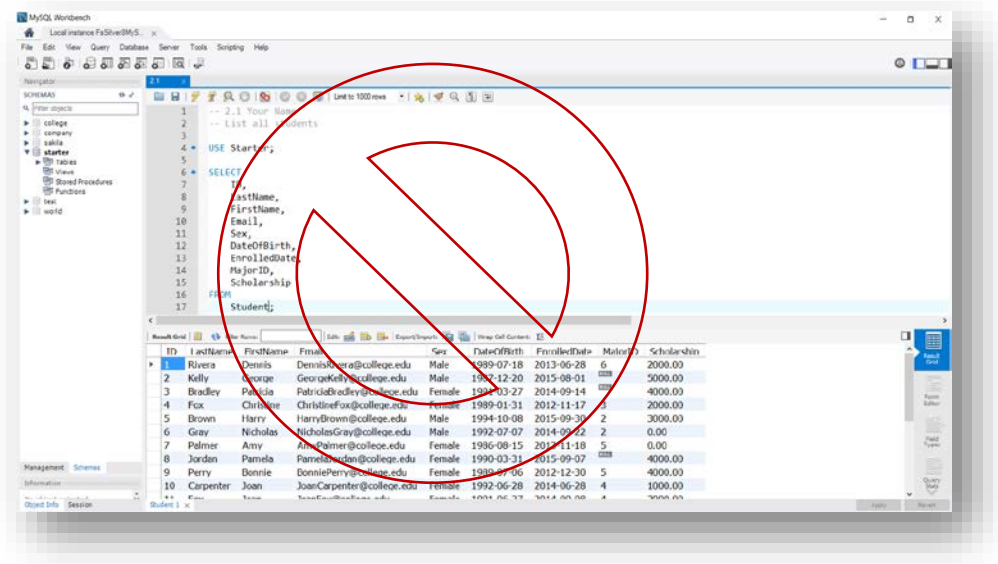
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## Copying your SQL Text and Making Screen Shots

When you copy your SQL code into the homework document, copy your SQL code as text, not as a screen shot. This is because I want to be able to copy and paste your SQL into my copy of MySQL to try it out. Copy a screen shot of your Result Grid.

When you make a screen shot, don't show me the entire window like this; it will be too hard for me to read. Please use the built in Windows **Snipping Tool** or a similar tool to copy only the relevant part of your screen.



Copy the SQL text and snip the Result Grid separately.

SQL pasted into the document as text

```
-- 2.1 Your Name
-- List all students

USE Starter;

SELECT
  ID,
  LastName,
```

Make the first line a comment with the assignment and step number and your name.

Describe what the query does.

Always have a USE statement.

Blank lines between statements makes the SQL much easier to read.

Then your beautified SQL.

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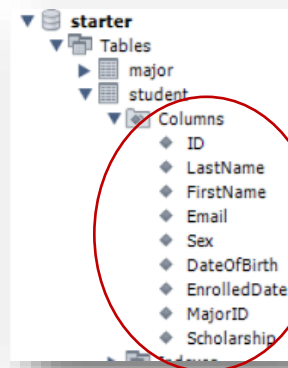
Paste a snipped screen shot that shows just the Result Grid like this. If there are a lot of rows in the result, show only the first 6-10 rows or so.

ID	LastName	FirstName	Email	Sex	DateOfBirth	EnrolledDate	MajorID	Scholarship
1	Rivera	Dennis	DennisRivera@college.edu	Male	1989-07-18	2013-06-28	6	2000.00
2	Kelly	George	GeorgeKelly@college.edu	Male	1987-12-20	2015-08-01	NULL	5000.00
3	Bradley	Patricia	PatriciaBradley@college.edu	Female	1991-03-27	2014-09-14	NULL	4000.00
4	Fox	Christine	ChristineFox@college.edu	Female	1989-01-31	2012-11-17	3	2000.00
5	Brown	Harry	HarryBrown@college.edu	Male	1994-10-08	2015-09-30	2	3000.00
6	Gray	Nicholas	NicholasGray@college.edu	Male	1992-07-07	2014-09-22	2	0.00
7	Palmer	Amy	AmyPalmer@college.edu	Female	1986-08-15	2013-11-18	5	0.00
8	Jordan	Pamela	PamelaJordan@college.edu	Female	1990-03-31	2015-09-07	NULL	4000.00
9	Perry	Bonnie	BonniePerry@college.edu	Female	1989-07-06	2012-12-30	5	4000.00
10	...	...	...	...	...	...	...	...

### Steps

1. [4] Write a SQL SELECT statement to list all the columns and all the rows from the Student table. List each field like this: `SELECT ID, LastName, FirstName, ...` and don't forget to beautify your SQL. In your screen shot of the Result Grid you need to show only first 6-10 rows.
2. [4] Write a SQL SELECT statement to list all the columns and all the rows from the Student table. This time, instead of listing all the fields, just use `SELECT *`
3. [4] Write a SQL SELECT statement to list just the last name, first name and email address from the Student table. This demonstrates how to "filter" the columns to show only the one's you need in a query.

TIP: You can see a list of the fields in any of the tables by expanding the tree view in the Schema window on the left side of the MySQL Window. First expand College, expand the table and finally expand the Columns. It looks like this:



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4. [4] This demonstrates how to neaten the result of a query to make it more like non-technical people are used to seeing.

Write a SQL SELECT statement to list just the last name, first name and email address from the Student table. This time, use the AS keyword to rename the fields in your results so the column headers look like this. Note the capitalization and spacing in the names in the Result Grid.

Last Name	First Name	Email Address
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5. [4] Write a query of our own design – Do it Yourself (DIY) - that's different from any above. Write a sentence explaining what the query is meant to do. Don't tell me how you did it, tell me the purpose of the query.

When you are done, close and upload your file into Blackboard. Remember, you must submit either a .DOC or .DOCX file. Any other file type such as an Open Office .ODT file is will earn a grade of zero.