# Chapter 1 - Introduction to RDBMs

## SQL Server Management Studio practical

## Objectives

The primary objective of this lab is to gain familiarisation with the SQL Server interactive interface and to be able to create some simple tables

## Reference material

This practical is based on material in the *Introduction to RDBMs* chapter.

## Overview

In this exercise you will use a script to create a database that you will spend some time investigating. You will answer some questions designed to make you think like a database developer. You will also add a new table to the database.

## Estimated duration

The estimated duration for this lab is 15 minutes.

## Completed solution

There is no completed solution to this lab.

## Step by step

Please follow the instructions below, reading CAREFULLY at all times as the questions have been thoughtfully worded.

### Part 1. Getting Acquainted

First we need to create the database that you are going to work on:

1. Start SQL Server Management studio from the Windows Start button.
2. Enter .\SQLEXPRESS as the Server name in the Connect to Server dialog box.
3. Select the **File => Open=>File...** from the SQL Server Management Studio menu and open the file called **CreateQAStore.sql** located in *CoursewareFolder*\1 Introduction to RDBMS\Resources.
4. Click on the **! Execute** toolbar button to run the script. The script should create a database called QAStore that contains 5 tables all populated with some relevant data.

The 5 tables were 'Created' as part of the above script using some CREATE TABLE syntax that looks something like this (see if you can locate it in the **CreateQAStore.sql** file):

CREATE TABLE dept

(

dept\_no INTEGER,

dept\_name CHAR(20),

etc, etc

)

The 5 tables were then populated using INSERT INTO 'tablename' syntax which looks something like this (you should see quite a few examples in the code):

INSERT INTO dept (dept\_no, dept\_name, etc, etc)

-- the column names

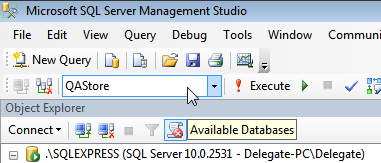
VALUES (1,'Animal Products', etc, etc)

-- the column values

Shortly you will execute 5 sample 'SELECT' statements that retrieve all the data in all the tables.

You now need to perform some important steps which will assist you for this and some later sessions. This is a VERY important part of this course.

When using SQL Server you can run tasks TOTALLY via the 'keyboard' (the EASY way), or by a combination of keyboard (typing the code) and the 'mouse' (the HARD way). This is your chance to try out both and then decide if you going to be a ‘keyboarder’ or 'mouse user'. 'Mouse' users are typically slower and more likely to run the wrong code.

1. Open the file called SelectAndPrintAllFiveTables.sql located in *CoursewareFolder*\1 Introduction to RDBMS\Resources by selecting the **File => Open=>File...** from the SQL Server Management Studio menu.
2. Choose QAStore from the drop down list of available databases located on the standard toolbar to ensure that it is selected as the current database.
3. Highlight the following 'batch' of PRINT/SELECT statements. Here is how to do it. PRETEND that you have typed in the following 10 lines of PRINT/SELECT statements by placing your cursor IMMEDIATELY AFTER the 'y' of 'company' on the last of the 10 lines and then whilst HOLDING DOWN the SHIFT key hit the UPARROW key until the whole of the 10 lines are highlighted (please try it), once you have done this hit F5 to execute them.

PRINT 'Here are the "departments"'

SELECT \* FROM dept

PRINT 'Here are the "salespeople" (they work in "departments")'

SELECT \* FROM salesperson

PRINT 'Here are the "sales" made by the "salespeople" (to customer "contacts")'

SELECT \* FROM sale

PRINT 'Here are the "contacts" (who work for "companies"), that the "sales" were made to'

SELECT \* FROM contact

PRINT 'Here are those "companies" (that the "contacts" work for)'

SELECT \* FROM company

1. Having executed the code by hitting F5, recognize that the alternative method is to pick up the mouse and choose a menu item or toolbar icon representing 'EXECUTE QUERY'. Try both methods if you like and compare them.
2. After executing the code you will get a split screen display. The SQL you are executing will be in the top 'pane', the results of your query in the bottom 'pane'.
3. You can toggle the display of the results 'pane' on or off by using Ctrl-R.

NOTE: PRINT is not an SQL statement but is a SQL SERVER Transact-SQL language verb that simply sends text back to the client application message handler to make our output more readable during this familiarisation stage.

The SELECT statements are the real SQL! PRINT will not be mentioned again.