Lesson 6: Understand the SELECT statement and save a query

All database reports that extract and display data contain the SELECT statement. You'll write your first query using SELECT in this lesson and will see how to save your query to a file.

1   Open SSMS and connect to your SQL Server (if you haven't already done this).

2   Write a query to display a list of company names from the *Suppliers* table.

This step is intentionally a little vague; it's the kind of request you might get as a database analyst. You'll need to examine the *Suppliers* table to figure out which column contains the data you need.

1.   Expand the *Northwind* database in the left pane.

2.   Expand the *Tables* folder.

3.   Expand the *Suppliers* table.

4.   Expand the *Columns* folder to display a list of columns in the table.

You can see that the data you need is in the *CompanyName* column. You could also have checked the columns in the table by viewing the table's contents as you did in the previous lesson.
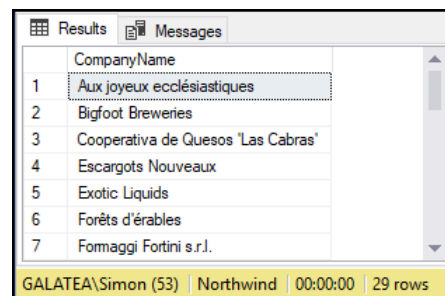
5.   Type the following query:

```
SELECT CompanyName
FROM Northwind.dbo.Suppliers
```

In the previous lesson you used the asterisk (*) to return everything from a table. This time you're telling the database that you only want the *CompanyName* column.
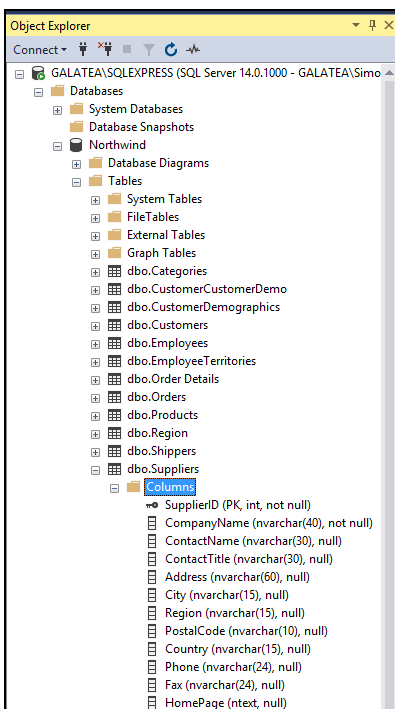
3   Execute the query.

All 29 of the company names are returned from the *Suppliers* table.

4   Write a query to display the company names, contact names and addresses from the *Suppliers* table.

tip

Executing queries with the keyboard

You can quickly execute a query by pressing the **<F5>** key on the keyboard.

The complete version of this course is available as an e-book or printed book.

note

Why is *Address* highlighted?

You might notice that the word *Address* is highlighted in blue when writing this query. This is happening because SQL Server considers the word *Address* to be reserved for a different purpose.

In this case the word *Address* won't cause any problems, but reserved names can cause errors in some cases. If this happens you can fix the problem by enclosing the name in square brackets: *[Address]*.

You also need to use square brackets to refer to names that contain spaces.

A well-designed database avoids the need for square brackets by avoiding reserved names and spaces, but some analysts prefer to use square brackets at all times to avoid any potential problems.

This course will only use square brackets when necessary, to make it clear when they are and are not needed.

tip

Saving with the keyboard

You can quickly save a query with the **<Ctrl>+<S>** keyboard shortcut.

This time you're going to write a query to return 3 columns from the table.

Modify your query to:

```
SELECT CompanyName, ContactName, Address
FROM Northwind.dbo.Suppliers
```

You can enter as many columns as you need in the SELECT statement, separated by commas.

Line breaks are ignored by SQL queries so you can use them to make your queries more readable. Some analysts might find this query more readable written this way:

```
SELECT
CompanyName,
ContactName,
Address
FROM Northwind.dbo.Suppliers
```

Line breaks aren't really needed in this query, but they're very helpful with larger SELECT statements.

Using line breaks and spaces can make your queries much easier to read and understand. You can also indent lines by using the **<Tab>** key.

5   Save the query as: **SupplierData.sql**

1.   Click: *File*→Save *SQLQuery1.sql As*.

The file name may be slightly different (such as *SQLQuery5.sql*), depending on how many new queries you have created since opening SSMS.

2.   Enter **SupplierData.sql** into the *File name* box, choose a location to save to and click *Save*.

Your query is now saved and can be reopened later in the same way as you opened the sample database script in: *Lesson 3: Install the sample database*.

SQL queries are plain text, so you can also copy your scripts into any text document and paste them back into SSMS later if you prefer.

You'll discover how to save SQL queries onto the server itself later in the course, in: *Lesson 29: Create a View*.