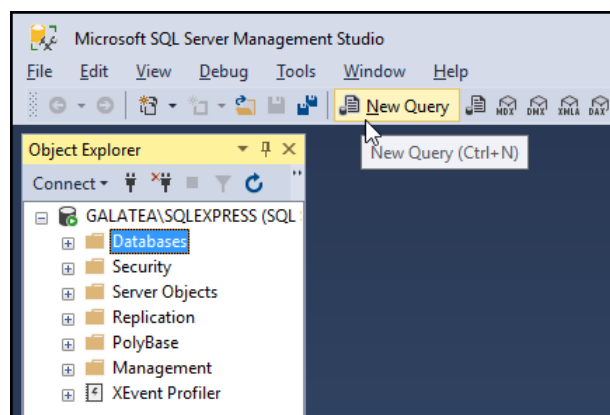


Lesson 5: Write your first database query

Many other courses try to extensively teach you about relational database theory before writing any queries. This course is more practical. You'll learn about relationships and joins later in the course, but you can learn a lot of useful skills without needing an in-depth knowledge of relational database theory.

- 1 Open SSMS and connect to your SQL Server (if you haven't already done this).
- 2 Create a new query.

Click the *New Query* button on the top toolbar.

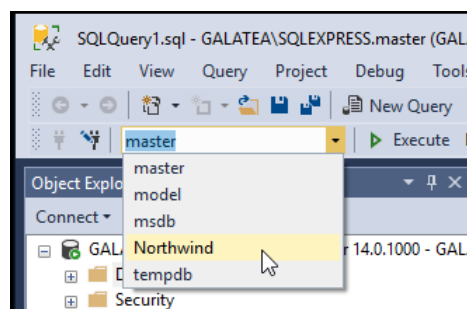


An empty window appears in the central pane of the interface, ready for you to enter a query.

- 3 Select the correct database to query.

The drop-down menu on the top toolbar allows you to select which database should be queried. This usually defaults to the *master* database, which is used by SQL Server's subsystems to store information about the server and its contents.

Click the drop-down menu and select the *Northwind* database.



It isn't strictly necessary to do this, but it ensures that your queries will default to the correct database.

- 4 Write a query to display the contents of the *Orders* table.

Type the following query into the empty query pane:

note

The USE statement

As an alternative to using the drop-down menu or the fully qualified database name, you can also use the *USE* statement.

To make your SQL code default to the Northwind database you can place the following line at the beginning:

```
USE Northwind
```

The scripts in this course will assume that you have selected the correct database from the drop-down menu, but the *USE* statement can be useful when writing scripts that need to be used on a different database server.

note

SQL commands are not case sensitive

SQL commands are almost always written in all caps, such as you can see here with the SELECT and FROM commands, but it isn't actually necessary to do this.

The following query will work without any problems:

```
select *
from Orders
```

Commands such as SELECT and FROM are often known as 'statements' and they can span several lines. The all-caps convention helps you to see where statements begin and end, as well as making your code more readable for other users who are familiar with this convention.

note

Table names can be case sensitive

Table names are not case sensitive by default, but this can be changed in the database settings.

It's best practice to always use the correct casing for table names.

```
SELECT *
FROM [Northwind].[dbo].[Orders]
```

This is your first SQL query.

The SELECT command tells the database that you want to extract and display data. It will be the first command in almost all database reports.

The asterisk (*) tells the database that you want it to display everything in the table. You'll replace this with more specific instructions later.

The FROM command tells the database where you want it to look for the data. In this case you want the *Orders* table in the *Northwind* database. *dbo* is the *schema* that the *Orders* table belongs to. Most databases only use the default *dbo* (database owner) schema, but some use multiple schemas to group tables together.

Since you selected the database using the drop-down menu, it isn't actually necessary to write the full path to the table. The square brackets are also unnecessary unless the table or database name contains spaces. You can shorten the query considerably to:

```
SELECT *
FROM Orders
```

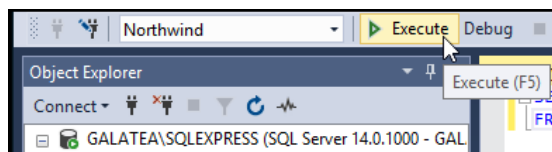
A query like this takes very slightly longer to execute because the database needs to figure out the correct schema each time it runs.

I prefer to use the shorter, more concise style for one-time queries and testing purposes, but it's best practice to use the full table path.

The queries shown in this course will generally use the full path to the database, but some of the more complex queries will use the shorter form to make them easier to understand.

5 Execute the query.

Click the *Execute* button on the top toolbar.



The query runs and the results are displayed in a pane at the bottom of the screen.

	OrderID	CustomerID	EmployeeID	OrderDate	RequiredDate	ShippedDate	ShipVia
1	10248	VINET	5	1996-07-04 00:00:00.000	1996-08-01 00:00:00.000	1996-07-16 00:00:00.000	3
2	10249	TOMSP	6	1996-07-05 00:00:00.000	1996-08-16 00:00:00.000	1996-07-10 00:00:00.000	1
3	10250	HANAR	4	1996-07-08 00:00:00.000	1996-08-05 00:00:00.000	1996-07-12 00:00:00.000	2
4	10251	VICTE	3	1996-07-08 00:00:00.000	1996-08-05 00:00:00.000	1996-07-15 00:00:00.000	1

Query executed successfully. | GALATEA\SQLEXPRESS (14.0 RTM) | GALATEA\Simon (53) | Northwind | 00:00:00 | 830 rows

Notice that the yellow bar at the bottom of the pane shows you that the query returned 830 rows of data. You can use the scrollbars to examine the entire contents of the *Orders* table.