

# Introduction

# Prerequisites

This course assumes that you have at least a basic familiarity with the concept of relational databases and a basic understanding of what SQL Server is and the high-level tools in it.

# Installing the Practice Files

## Software Requirements

This course assumes a full installation of SQL Server 2012. A good edition to install is the Developer Edition, which is inexpensive and includes a full set of features. This edition, however, is licensed only for development work, not for use with production databases.

## Sample Databases

The examples in this course use data from the AdventureWorks2012, AdventureWorksDW2012, AdventureWorksLT2012, and Northwind sample databases.

## AdventureWorks Databases

The various AdventureWorks databases are new versions of those that shipped with SQL Server 2012 and are available on Microsoft's Codeplex Web site. As of this writing, this is the link where you can download the installation files:

<http://go.appdev.com/?id=SCMA>

Microsoft is fond of changing Web links on its sites, however. So if the above link doesn't take you to the files, search the Web for the terms *codeplex* and *adventureworks*. That should take you straight to the correct place. You'll want to download the following files (each bullet lists the name as displayed on the download page and the name of the resulting download file):

- AdventureWorks2012 Data File - AdventureWorks2012\_Data.mdf
- AdventureWorksDW2012 Data File - AdventureWorksDW2012\_Data.mdf
- AdventureWorksLT2012\_Data - AdventureWorksLT2012\_Data.mdf

Be sure to download the correct files! There are a number of variations on the download page.

Once you've downloaded the files, follow these steps to install the AdventureWorks databases.

1. Using Windows Explorer, copy the following files from where you downloaded them to the default location of your SQL Server database files. In a default installation of SQL Server 2012, that will be C:\Program Files\Microsoft SQL Server\MSSQL11.MSSQLSERVER\MSSQL\DATA, but you may have changed the default location when you installed the instance of SQL Server.
  - AdventureWorks2012\_Data.mdf
  - AdventureWorksDW2012\_Data.mdf
  - AdventureWorksLT2012\_Data.mdf
2. Start Management Studio if it is not already running, and connect to a local instance of SQL Server 2012. The Connect to Server dialog box will probably look like Figure 1, although the machine name and authentication information will probably be different.

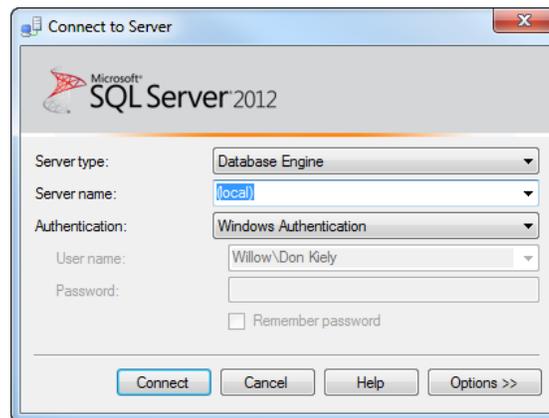


Figure 1. Connecting to a local instance of SQL Server 2012.

- In Object Explorer, right-click the **Databases** node, and select **Attach** from the pop-up menu, as shown in Figure 2. This opens the Attach Databases dialog box, which you can use to attach one or more databases at once.

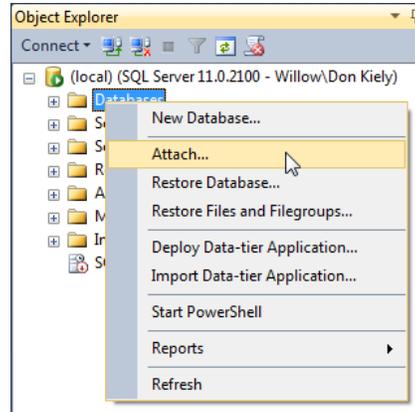


Figure 2. Selecting the Attach option in Object Explorer.

- Click the **Add** button, which opens the Locate Database Files dialog box. The default Data folder should already be selected, but if not navigate to the location where you copied the AdventureWorks .mdf files. Select the **AdventureWorks2012\_Data.mdf** file, and leave the other options set to their default values, as shown in Figure 3. Click the **OK** button.

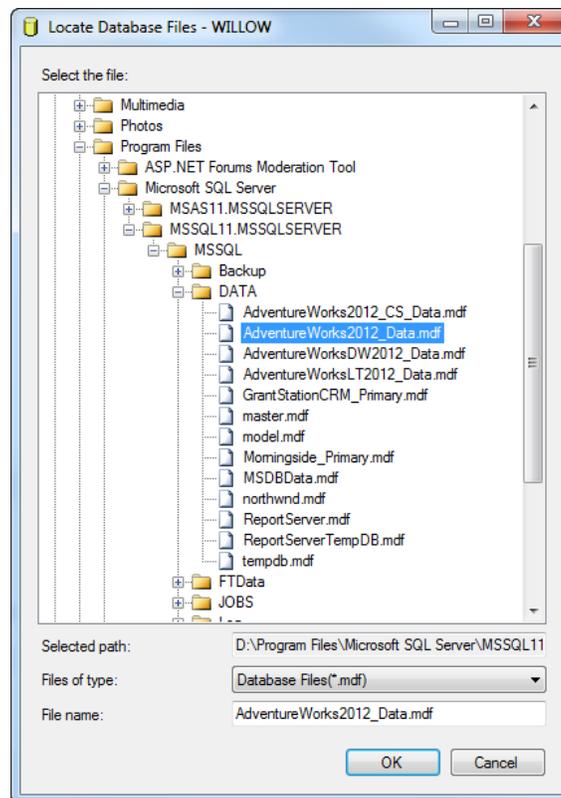


Figure 3. Selecting the first AdventureWorks database to attach.

- Back in the Attach Databases dialog box, select the **AdventureWorks2012\_Log.ldf** file, as shown in Figure 4. Notice that the Message column indicates that this file was not found, as it is not part of the sample database download. Click the **Remove** button to remove it. SQL Server will create this log file when you attach the database.

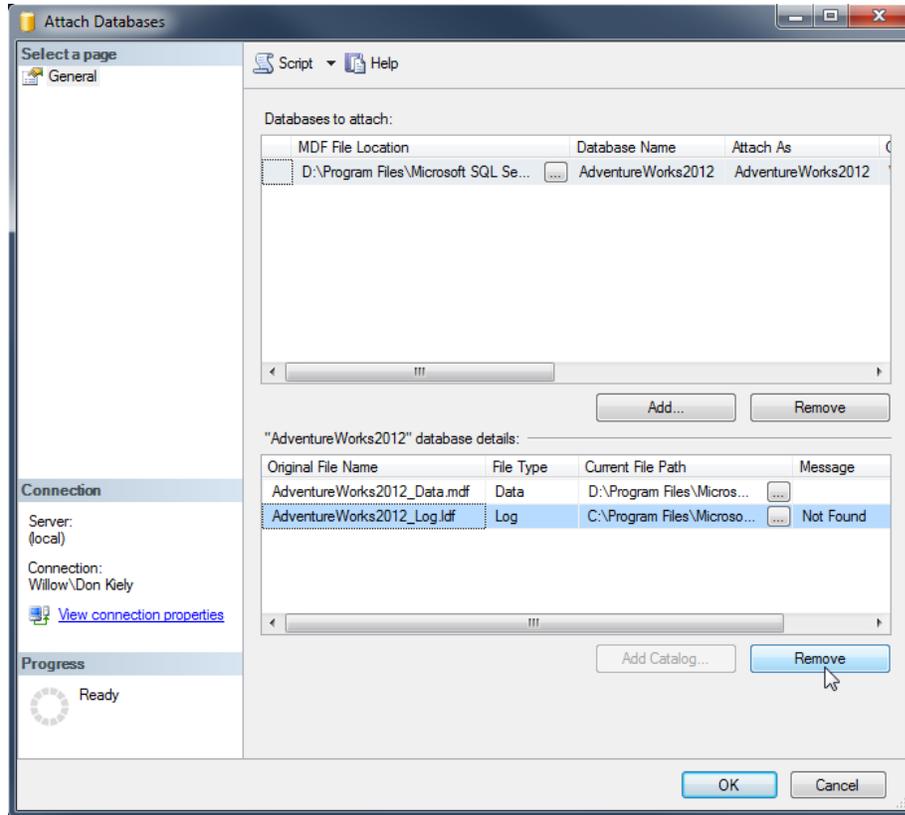


Figure 4. Removing the missing log file.

- Repeat Steps 4 and 5 for the **AdventureWorksDW2012\_Data.mdf** and **AdventureWorksLT2012\_Data.mdf** database files. When you're done, the Attach Databases dialog box should look like Figure 5. Click **OK** to attach the databases.

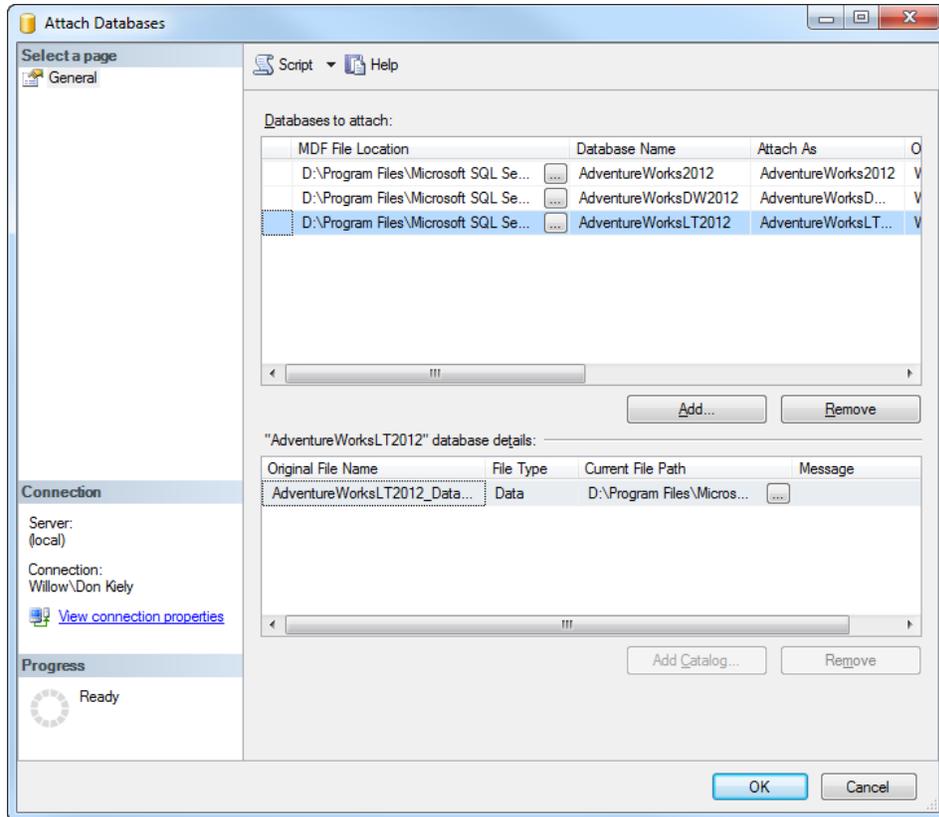


Figure 5. The Attach Databases dialog box after adding all three AdventureWorks database files.

- When SQL Server is finished attaching the databases, right-click the **Databases** node in Object Explorer and select **Refresh** from the pop-up menu. Expand the Databases node, and verify that the three AdventureWorks databases appear in the list, as shown in Figure 6.

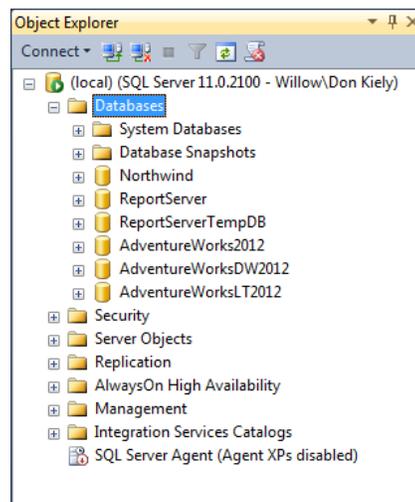


Figure 6. The newly attached AdventureWorks databases in Object Explorer.

The AdventureWorks sample databases are now ready for use in this instance of SQL Server.

## Northwind Database

The Northwind database, which is an older sample with a simpler database structure is not included with SQL Server 2012. To download a copy of the Northwind database, browse to the following URL and download **SQL2000SampleDb.MSI**.

<http://go.appdev.com/?id=SCMB>

This link also sometimes changes, so a Web search using *northwind "sql server" download* (including the quotes around SQL Server) should get you to the right place.

When you install the Northwind MSI, it places a copy of the **instnwnd.sql** script on your hard drive. Follow these steps to install the Northwind database from the instnwnd.sql file.

1. Double-click the **instnwnd.sql** file in Windows Explorer.
2. When the script opens in Management Studio, the Connect to Server dialog box appears. Click **Connect**.
3. With the instnwnd.sql script open in SQL Server Management Studio, click the **Execute** button. This runs the script to create the database.
4. In Object Explorer, right-click the **Databases** node and select **Refresh**. You'll now see the Northwind database listed. You can expand its Tables node to see the tables in the database, as shown in Figure 7.

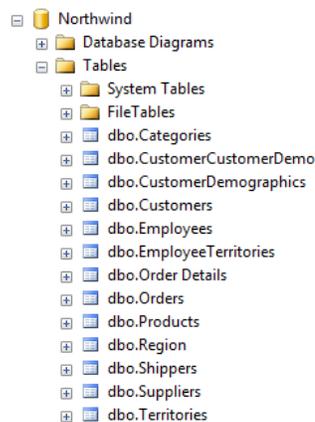


Figure 7. Tables in a freshly installed instance of the Northwind sample database.

## Sample Databases in Object Explorer

Once you've installed the sample databases, Object Explorer in Management Studio should look like Figure 8. (You may have other databases installed, if you've been using this instance of SQL Server already.)

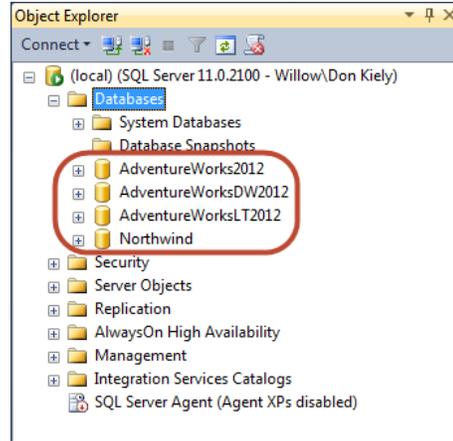


Figure 8. Sample databases installed for this course.

## Sample Code Installation

The Installer file provided, **SCM.exe**, will create the following default subfolder: **C:\AppDev\SCM\Samples**. (These chapters do not have corresponding lab files.) After the files are installed, a subfolder for each chapter is created and placed within one of the corresponding folders. Please refer to the individual chapters to locate the correct folders.

## About the Author

**Don Kiely**, MVP, MCSD, is a senior technology consultant specializing in developing secure desktop and Web applications that integrate databases and related technologies, using tools including SQL Server, Visual Basic, C#, and ASP.NET. Don has authored and co-authored several programming books, many of which you're likely to see in the bargain bin at your local mega-bookstore. He writes and has written for many industry journals, including Visual Studio Magazine, MSDN Magazine, CoDe Magazine, and DevProConnections. Don trains developers and speaks regularly at industry conferences, including TechEd, SQL PASS, VSLive!, DevConnections, DevTeach, and others, and is a member of the INETA and MSDN Canada speaker bureaus. He writes courseware for AppDev and records instructional videos for them. Don is a full member of the Institute of Electronics and Electrical Engineers and the American Society of Civil Engineers. He earned a BS in Civil Engineering from the University of Notre Dame and an MBA from the University of Colorado, but fortunately learned the error of his establishment ways. In his other life he roams the Alaska wilderness by foot, dog sled, skis, and kayak. He is the volunteer President of Second Chance League, a non-profit sleddog rescue organization in Alaska, which rescues sleddogs from the local shelter and finds them new lifelong homes. Contact him at [donkiely@computer.org](mailto:donkiely@computer.org).