SQL 100 Introduction to T-SQL – Module 01, Demo 03

Working with Queries

Demo Overview

A. Open a Query Window and Point it to the Right Database
B. Configure Query Window Connections
C. Execute and Save a Query
D. Use a Project to Organize Queries
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    b. Create a Query in the Project
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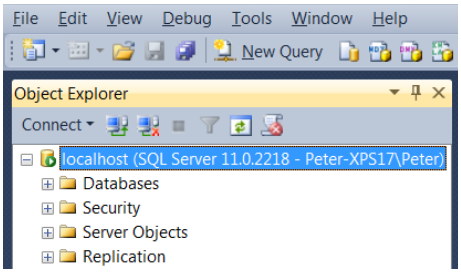
A. Open a Query Window and Point it to the Right Database

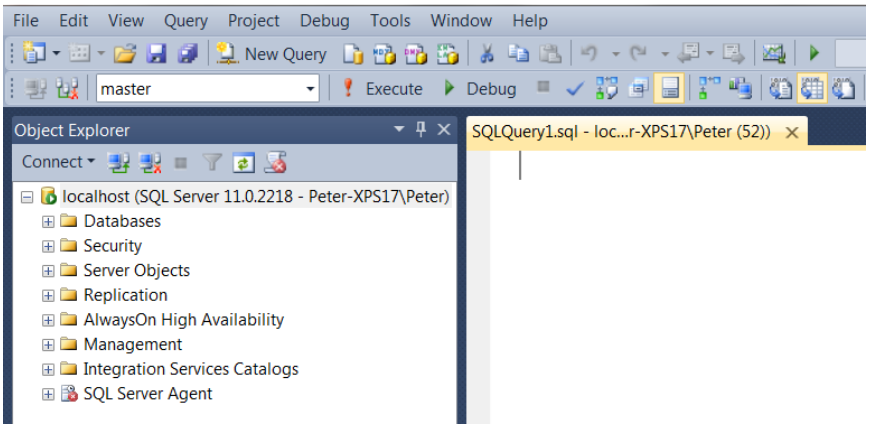
1. If necessary, start SQL Server and connect to localhost as you did in Demo 1.

2. With the server selected, click on the New Query icon 

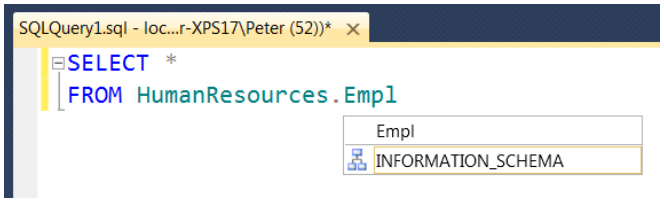
in the toolbar.



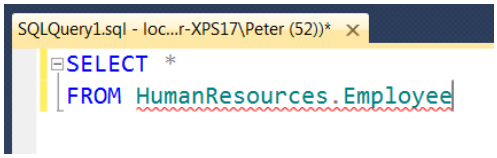
3. Notice the query window that appears to the right of the **Object Explorer** panel. Notice also that the **master** database is selected in the **Available Databases** dropdown on the toolbar.



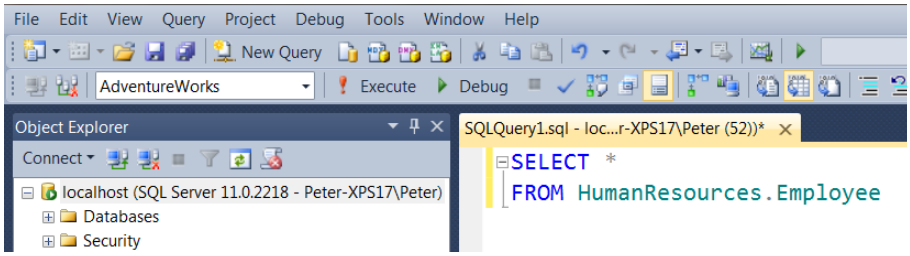
4. Type in a simple query and notice that when you start typing the name of the table, it does not appear in the Intellisence window that appears. This is because the master database is currently selected, and there is no such table in the master database.



5. Finish typing the query and now notice the red squiggles. Same problem: There is no such table in the master database.

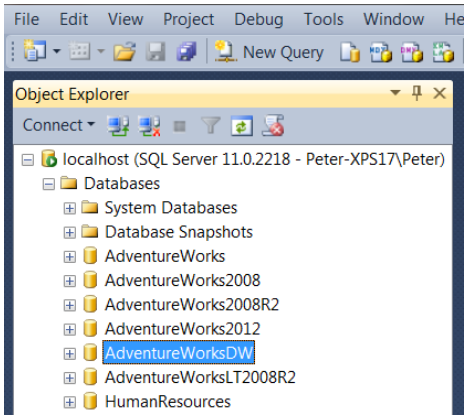


6. Select the **AdventureWorks** database in the **Available Databases** dropdown and notice that the red squiggles go away after a couple of seconds.

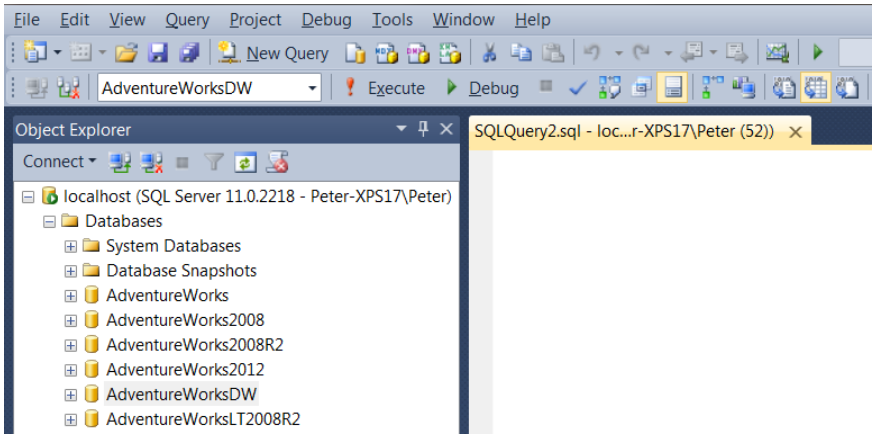


7. Close the query window.

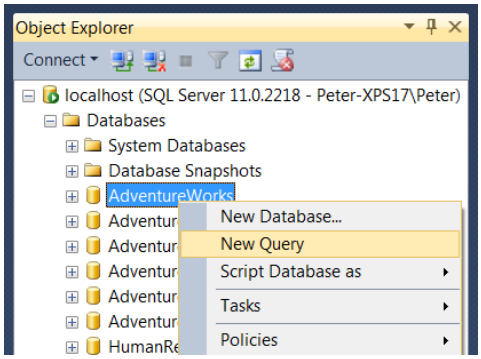
8. Open a new query window using the New Query button again, but this time select the **AdventureWorksDW** database first.



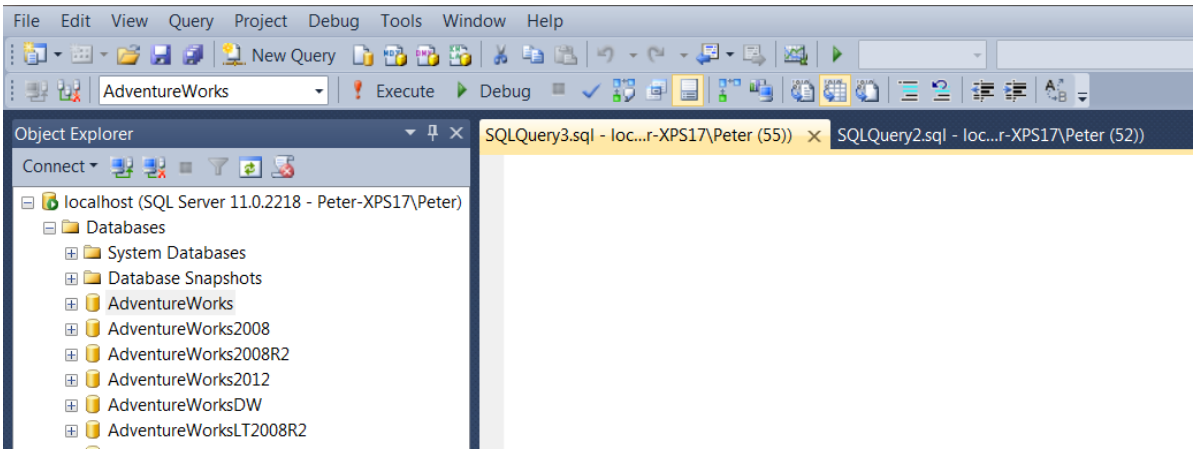
9. By having selected the database first, SSMS automatically selects it in the **Available Databases** dropdown.



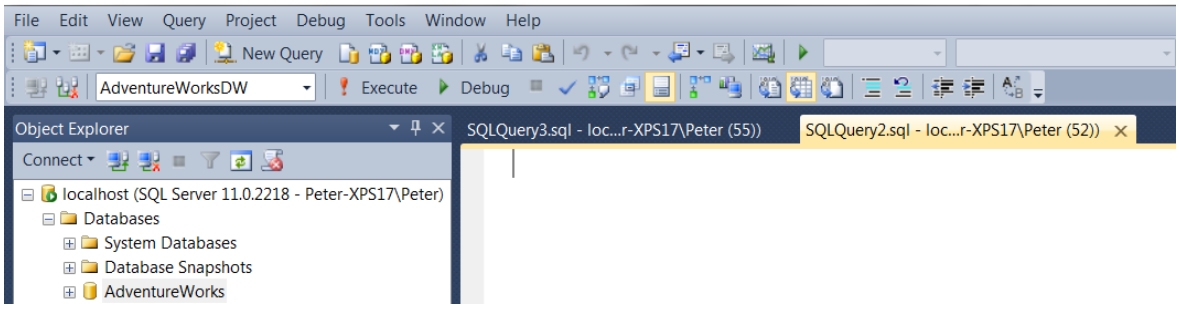
10. Keep this query window open while you open a new one by right-clicking on the **AdventureWorks** database and selecting **New Query**.



11. This approach also automatically selects the database in the **Available Databases** dropdown. Notice also, that a new tab has been created and two query windows are now open. You can have several query windows open at once in SSMS.



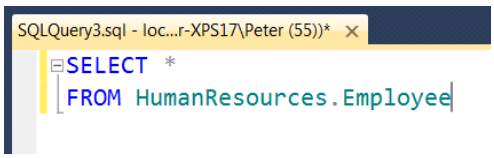
12. Select the first query window to the right of the new one and notice that the database in the **Available Databases** dropdown changes to the database of that query window, **AdventureWorksDW**.



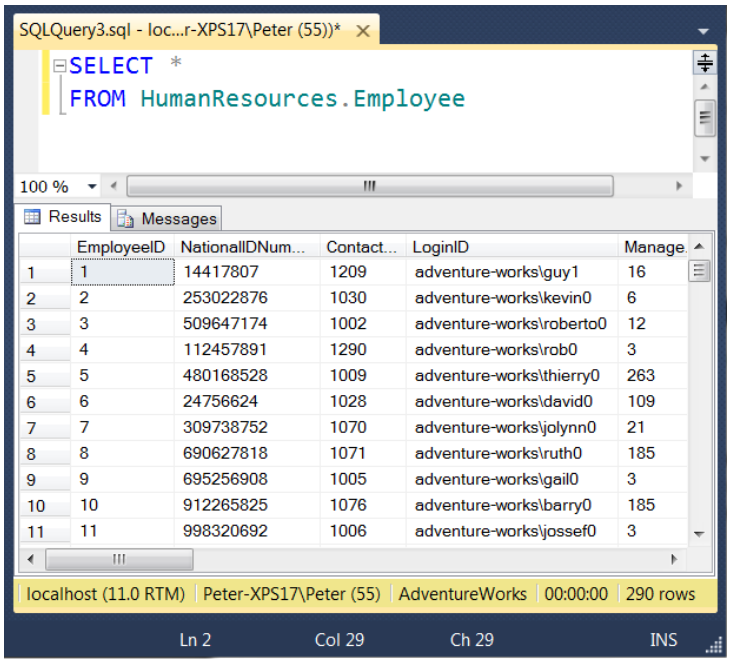
13. Close the query window that is using the AdventureWorksDW database.

B. Execute and Save a Query

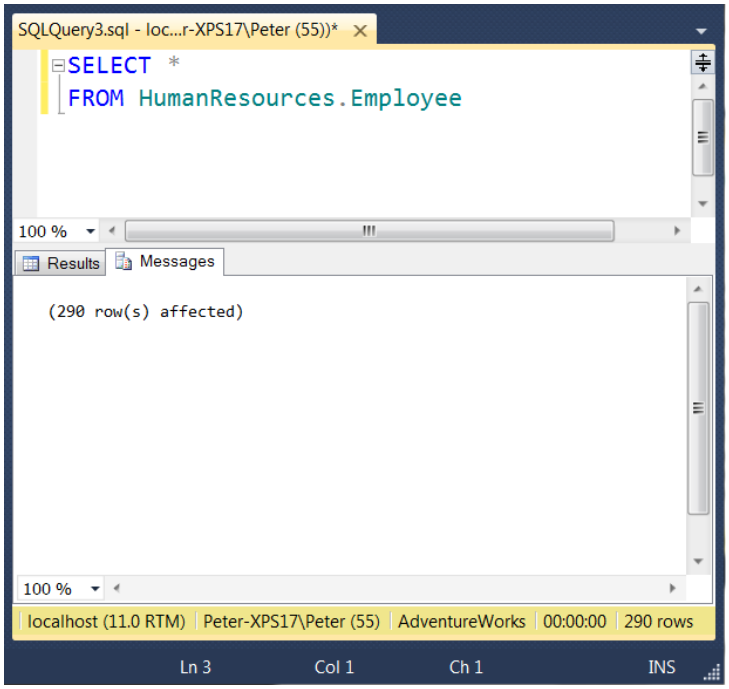
1. If necessary, open a new query window for the AdventureWorks database and type in the following query:



2. To execute the query, click the **Execute** button in the toolbar or press **F5**. Notice that a Results panel appears in the bottom part of the query window. Notice also that the number of rows returned by the query is displayed in the lower right corner of the query window. There are **290** rows in the HumanResources.Employee table.



3. Select the Messages tab in the Results panel to see any messages returned by the execution.



4. Notice the name of the query in the query window tab at the top of the query window. Right now, it is a generic name that looks like **SQLQueryX.sql**, where X is an integer whose value depends on how many query windows you've opened so far. Notice also the asterisk next to the name, indicating that the query has pending changes that have not yet been saved. To save the query, click the **Save** button on the toolbar. Save the query onto the desktop and call it **AllEmployees.sql**. The query's results are not saved.

5. Close the query window and then open it again using the **Open** button on the toolbar.

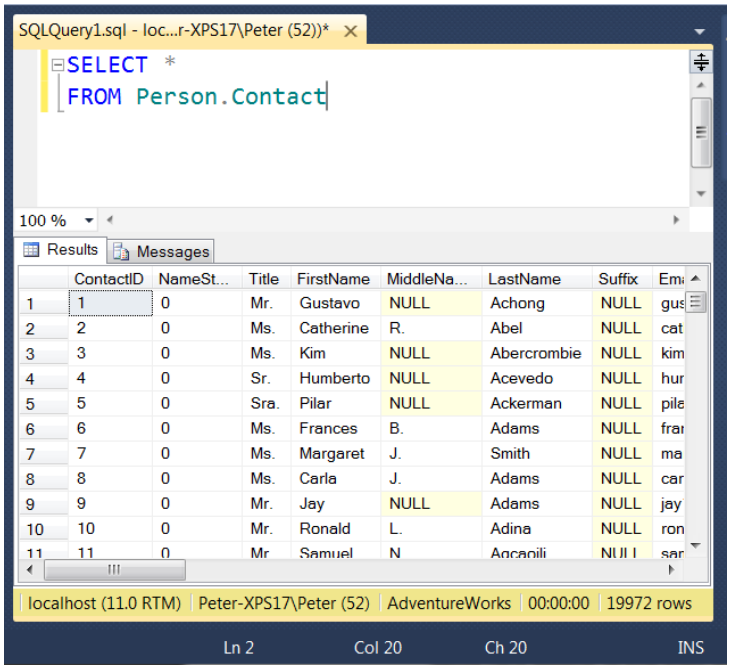
C. Configure Query Window Connections

1. Execute the query you just opened and notice the results.

2. In the **Object Explorer** toolbar, click the **Disconnect** button to disconnect the server, and then try to execute the query again. It still executes!

3. Try another query just in case you might be suspecting that the query executed because it did so before and is stored in the cache (this is not the case). Execute the following

query that we have not yet executed and notice that it executes, too! Notice the yellow bar at the bottom of the query window. It shows that the query window is connected to localhost. Every query window has its own connection. When we opened query windows earlier, they connected to the same server to which the Object Explorer panel was connected.



4. Close the query window and open a new one. The **Connect to Server** window you saw in Demo 1 appears. Without a connection in Object Explorer, SSMS prompts us for a connection.

5. Click **Cancel** in the **Connect to Server** window.

6. In the **Object Explorer** toolbar, click the **Connect Object Explorer** button and connect to localhost as you did in Demo 1.

7. Open a new query window and notice that SSMS does not prompt you for a connection this time; instead, it again established its own connection based on the connection already established in Object Explorer.

8. In the SSMS toolbar, click the Database Engine Query button (just to the right of the **New Query** button) to open a query window that overrides the current connection in Object Explorer. The **Connect to Server** window appears. Cancel it.

D. Use a Project to Organize Queries

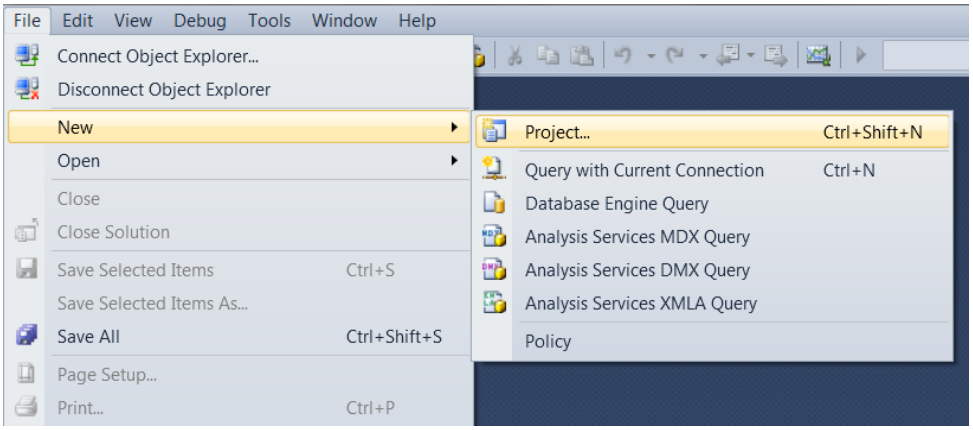
Up until now, all of the query windows we have opened have been standalone. Very often, you will be working on a project that involves several queries. A project will help you keep all those queries together and make it easier to work with them.

In this part of the demo, we will explore how to create a project, create a query in the project, and add a standalone query to the project.

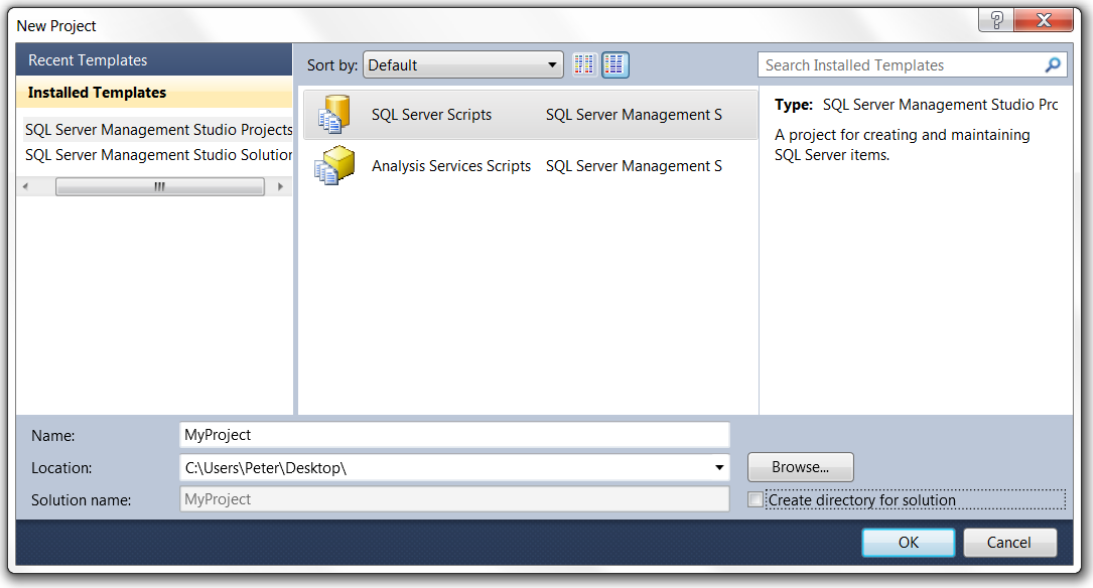
Create a Project

1. Close all query windows.

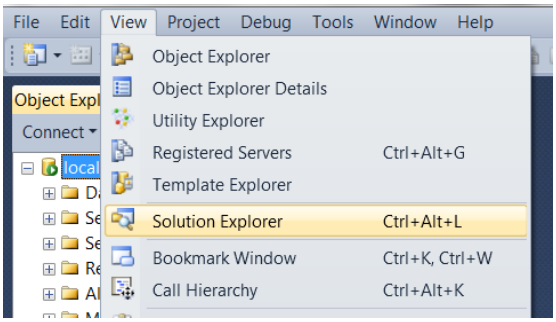
2. From the **File** menu, select **New** and then **Project…**



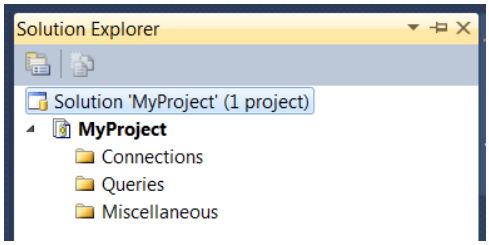
3. In the **New Project** window, select the **SQL Server Scripts** template, type **MyProject** in the **Name** field, click the **Browse** button to browse to the desktop, uncheck **Create directory for solution** (several projects can be a part of a solution, but most of the time a project stands alone; since that is the case here, we will not create a directory for the solution), and click **OK**.



4. If you don't see the **Solution Explorer** panel on the right side of the screen, click the **View** menu and select **Solution Explorer**.

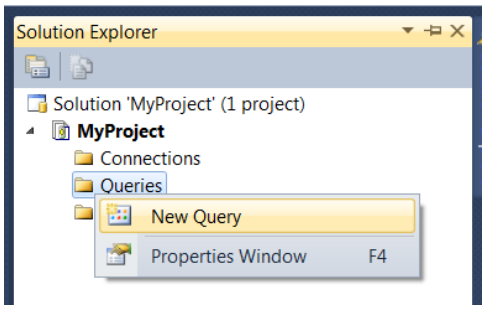


5. Notice your project in the **Solution Explorer** panel on the right side of the screen. Projects contain folders for **Connections**, **Queries**, and **Miscellaneous** files.

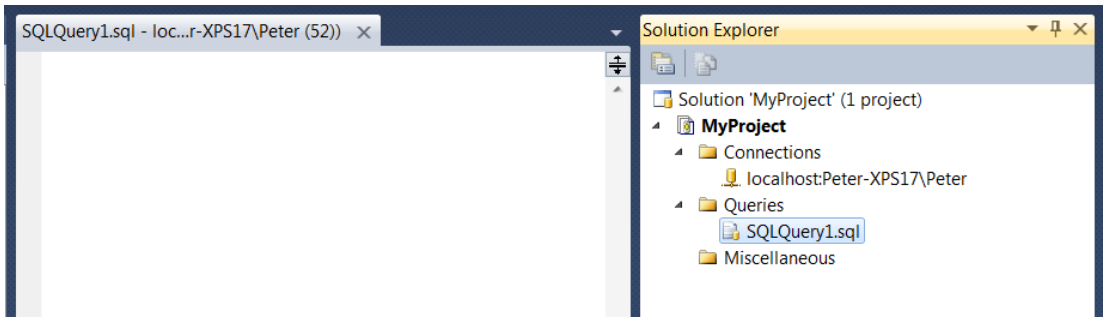


Create a Query in the Project

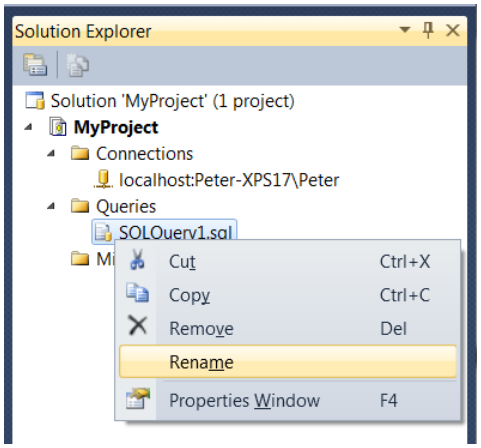
1. To create a query in the project, we will not use the New Query button we used before; that's for standalone queries outside of the project. Right-click on the **Queries** folder and select **New Query** to create a query in the project.



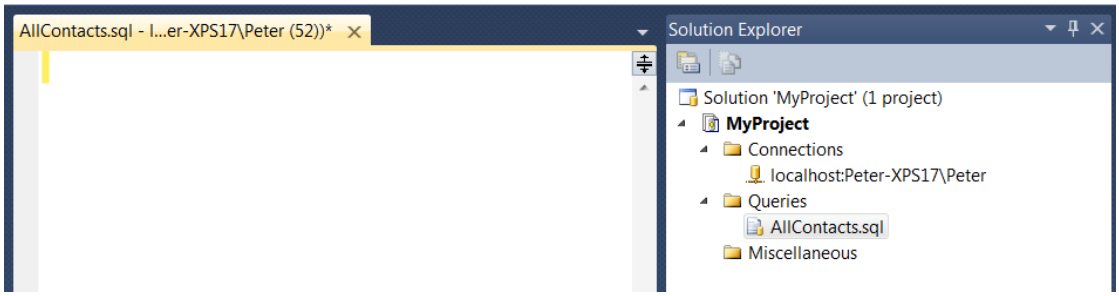
2. A new query window opens and the query appears in the **Queries** folder of the project with a generic name along with the current connection in the **Connections** folder.



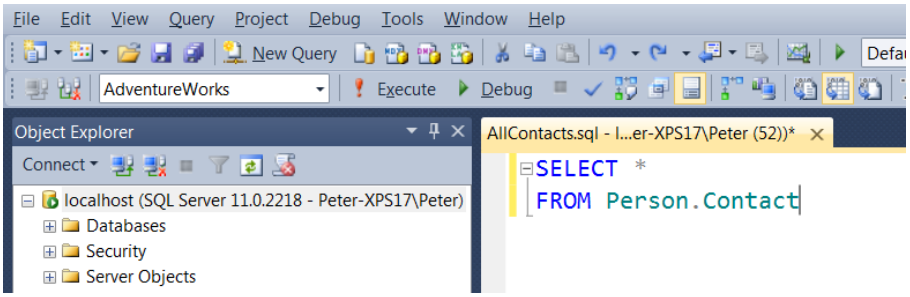
3. To give the query a more descriptive name, right-click on the new query in the **Queries** folder of the project and select **Rename**.



4. Type **AllContacts.sql** for the name of the query and press **Enter**. The name of the query changes both in the **Queries** folder of the project and in the tab at the top of the query window.



5. Select the **AdventureWorks** database in the **Available Databases** dropdown and then type the following query in the query window, then execute the query to make sure it works properly:

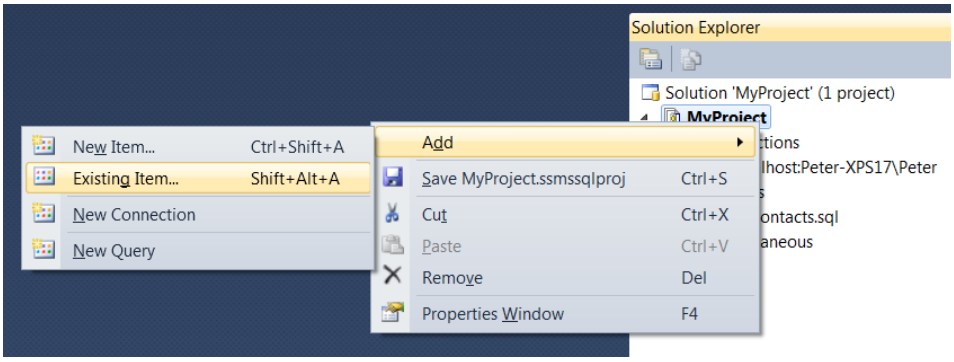


6. Close the query window and answer **Yes** when prompted to save.

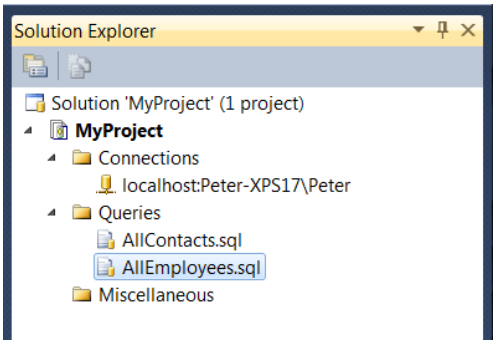
Add a Standalone Query to the Project

There are times when you will create a standalone query that you will later want to add to a project. Here's how to do that.

1. Right-click on the project in **Solution Explorer**, select **Add** and then select **Existing Item…**

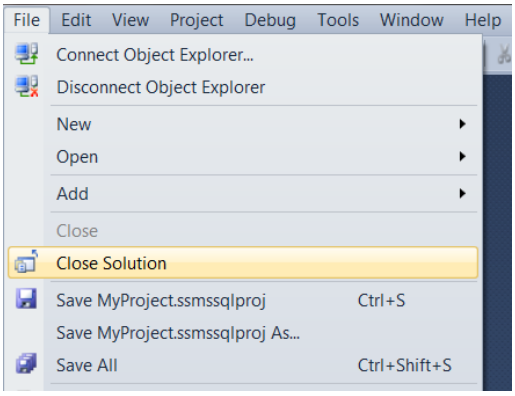


2. Navigate to the location where the query was saved. In this case, we will add the query we saved on the desktop earlier in this demo called **AllEmployees.sql**. When we add it to the project, SSMS copies it to the project folder on the disk and it appears in the **Queries** folder in **Solution Explorer**.

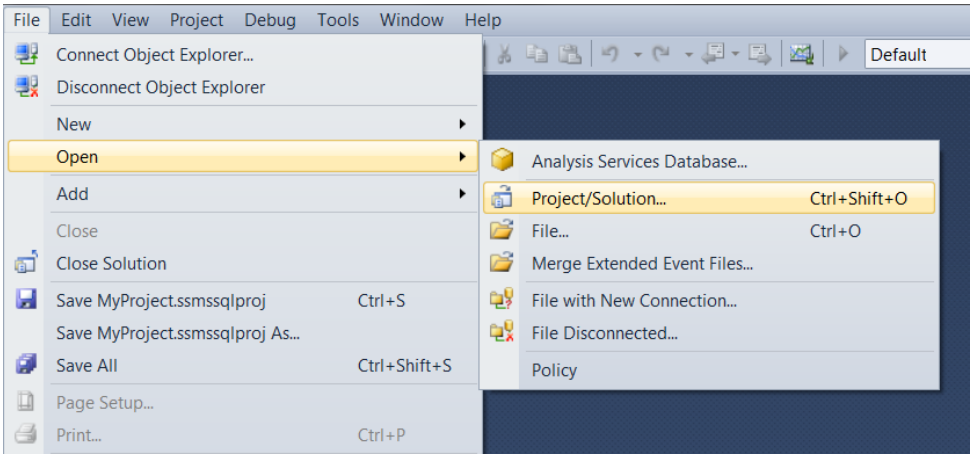


Open an Existing Project

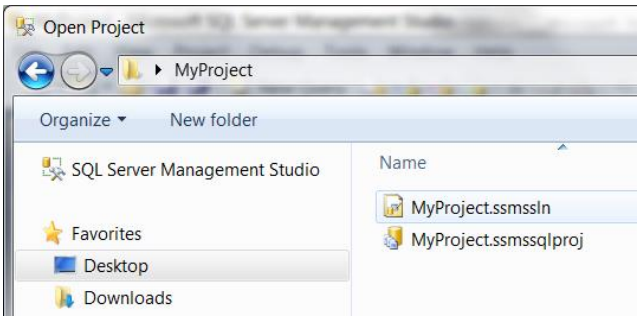
1. From the **File** menu, select **Close Solution** and answer **Yes** when prompted to save.



2. To open your project, select the **File** menu, then **Open**, and then **Project/Solution…**



3. Navigate to the project folder on the desktop and then open the **.ssmssln** file.



4. If you worked on your project recently, another way to open it is to select the **File** menu, then **Recent Projects and Solutions**, and then the **.ssmssln** file.