Install SQL Server for Learning

To install the SQL Server instance, you will need to first download the media. I will not provide a link here, because invariably it will change, so just search for "SQL Server 2017 downloads." The page that was current as of this writing had links for a free trial and for a Developer Edition shown in Figure 1. Choose the Developer edition and save the downloaded file.

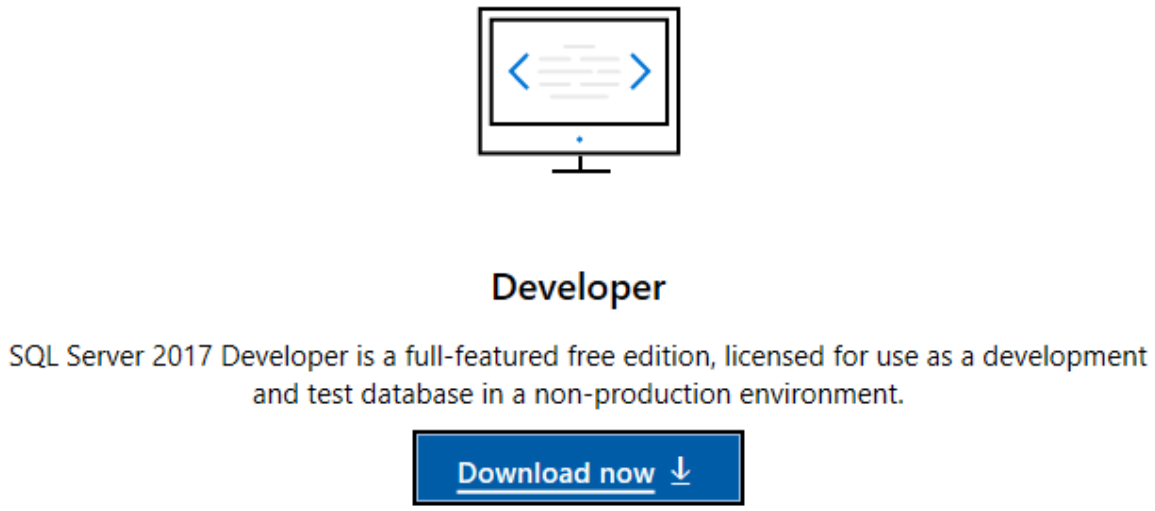


Figure 1: The SQL Server media download page

I'm not going to show you every step of installing SQL Server because that information can be found elsewhere. Here are the important things to note:

1. The page mentioned above allows you to download the actual media. Do that first.
2. Once you have downloaded the media, run setup.exe to launch the *SQL Server Installation Center*. You'll need to click *New SQL Server stand-alone installation* on the *Installation* page shown on Figure 2.

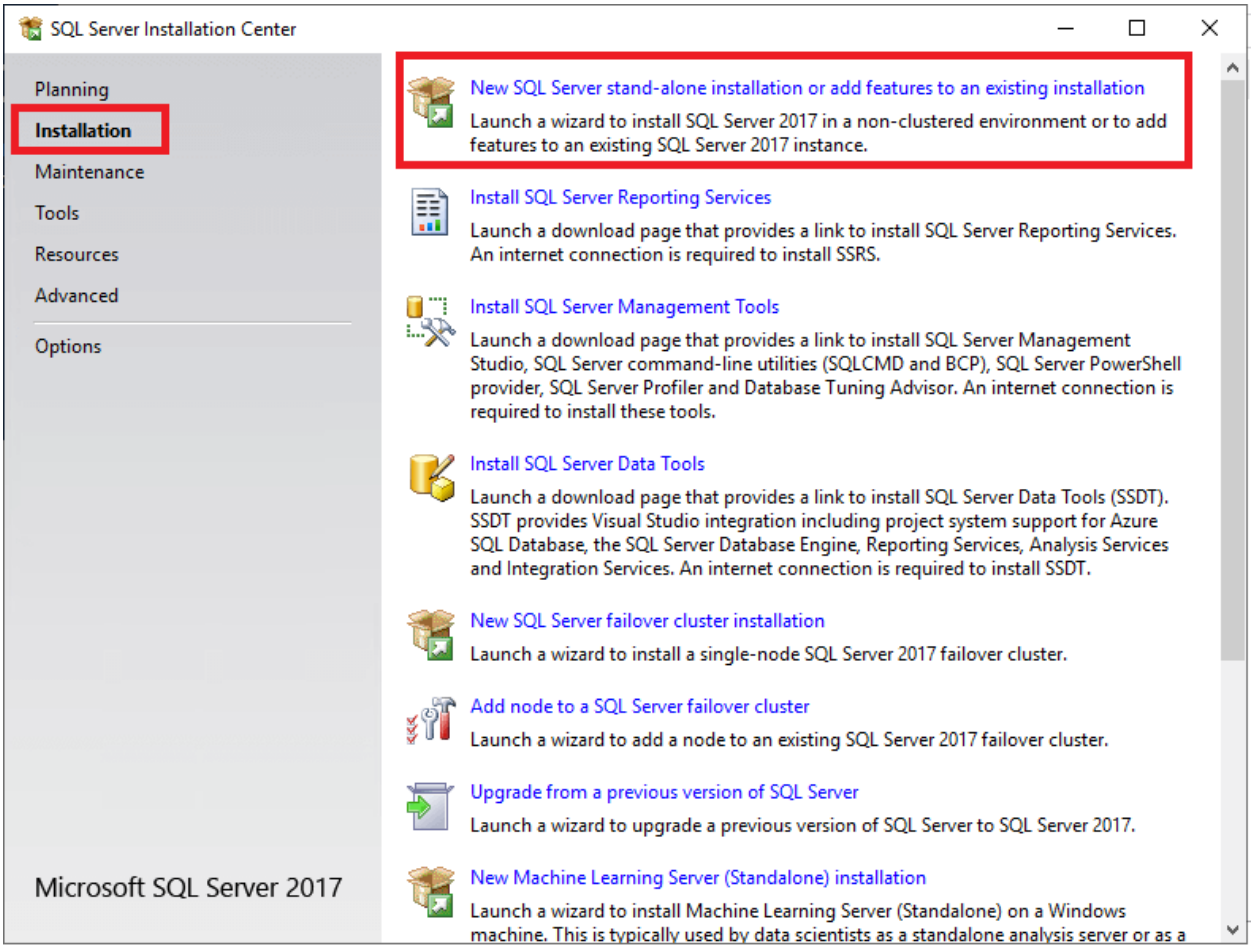


Figure 2: Launch the installation

Make sure to choose the *Developer Edition* shown in Figure 3.

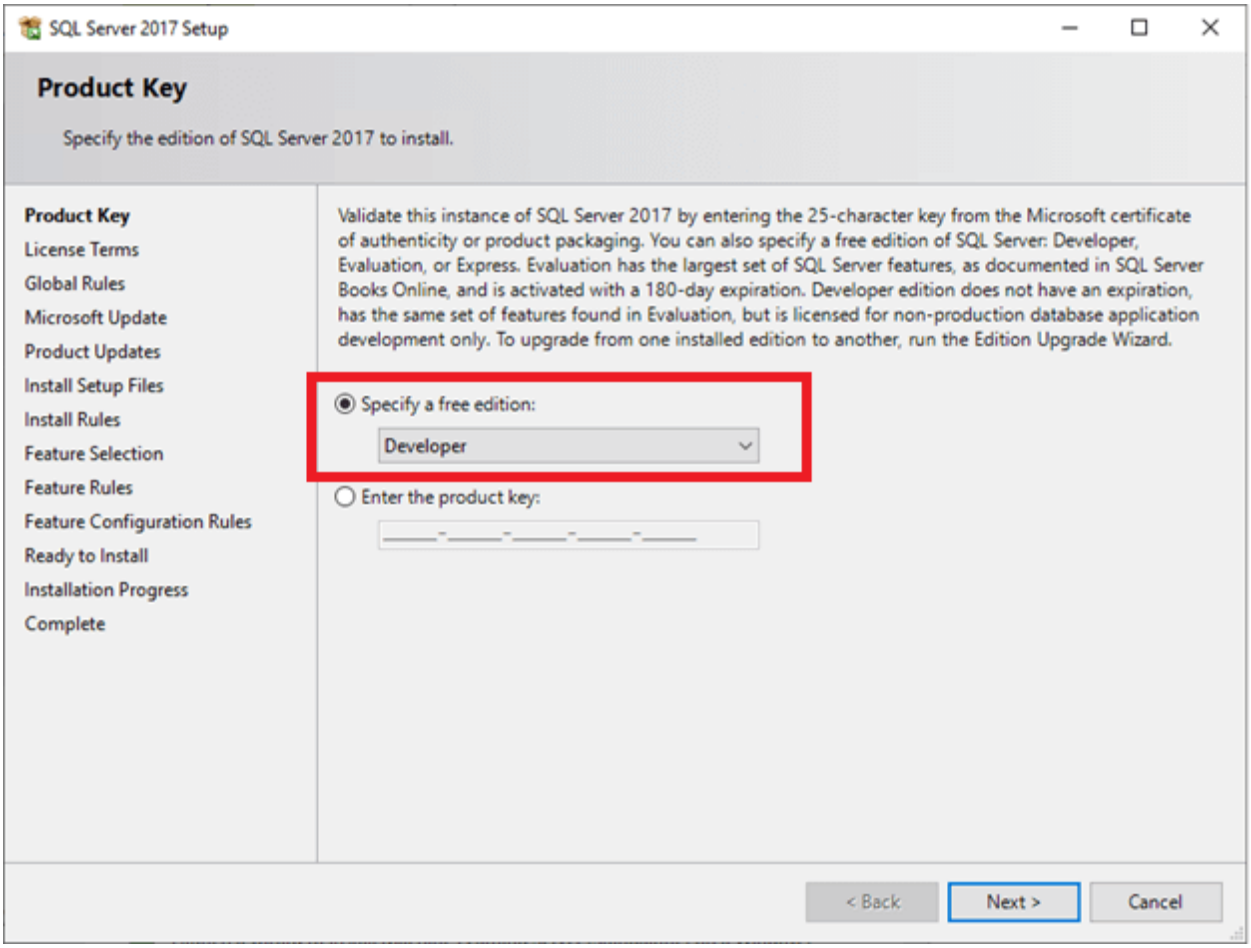


Figure 3: The Developer edition

The only instance feature you will need for learning T-SQL is the *Database Engine Services* shown in Figure 4.

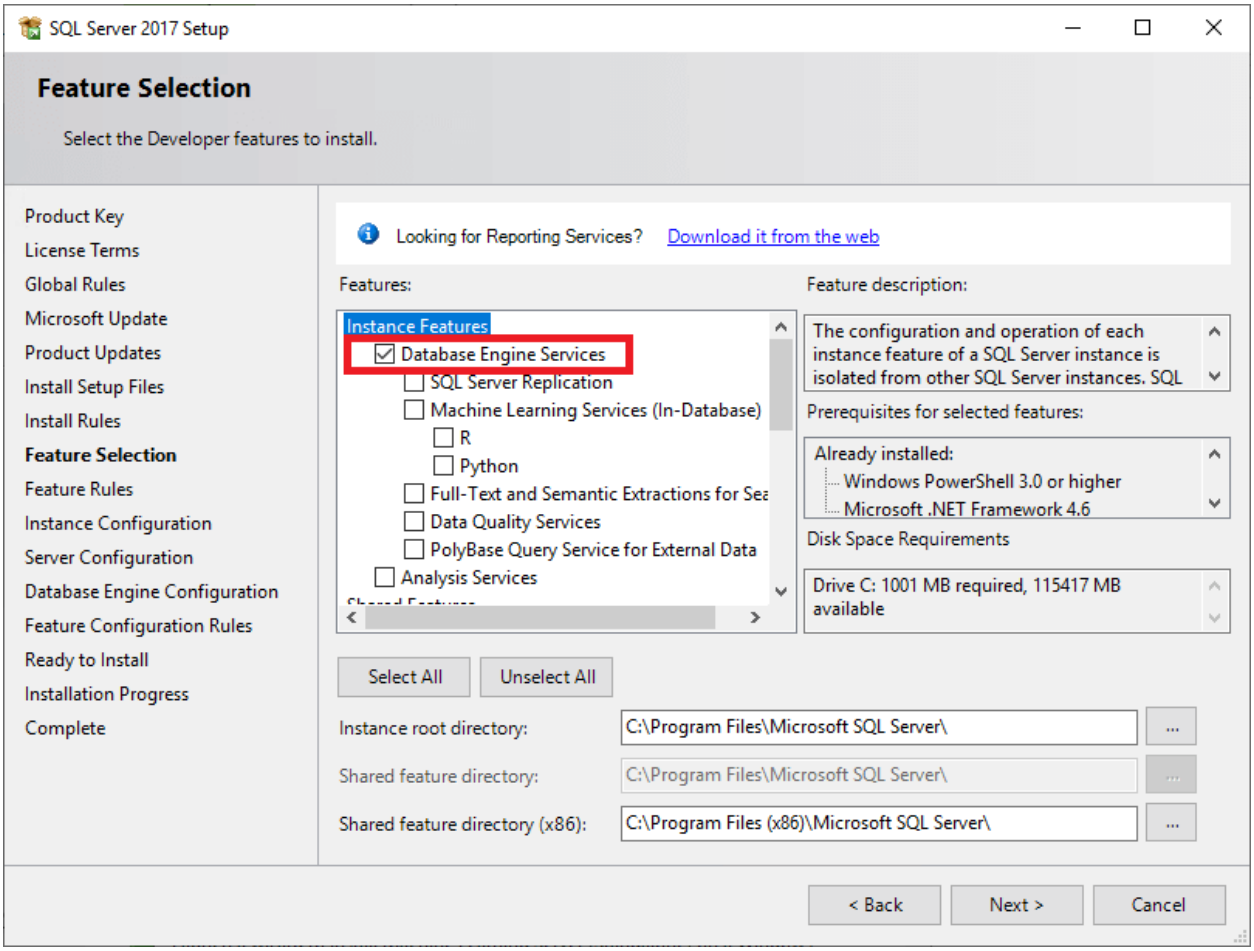


Figure 4: Features

To make things simpler, just install the *Default* instance shown in Figure 5. If you have already installed an instance, you'll see it listed. If that's the case, you may want to just cancel out of the wizard at this point and use the previously installed instance.

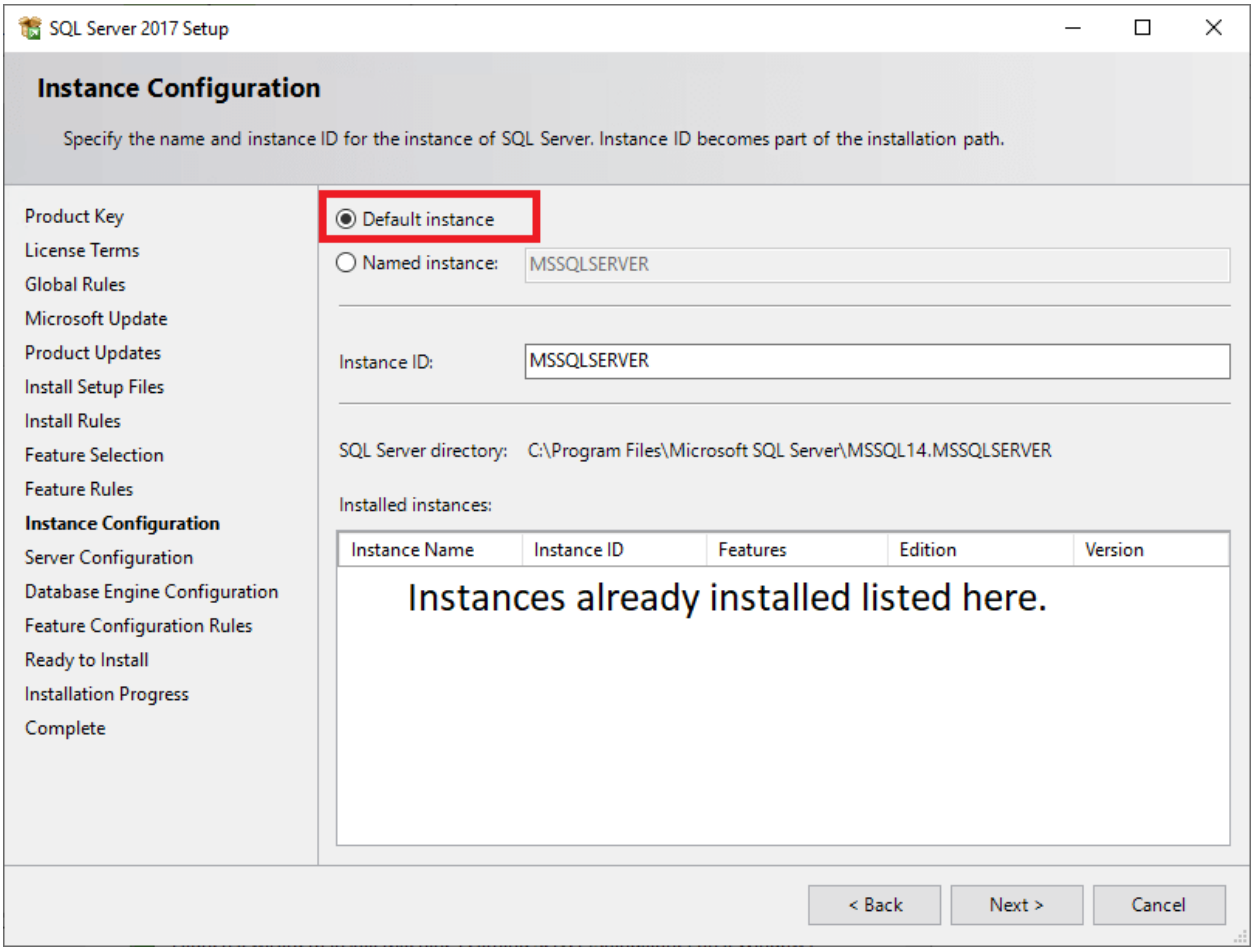


Figure 5: Install the Default instance

Be sure to click *Add current user* to make your account an administrator. You may also want to set the security to *Mixed mode*. Figure 6 shows these options.

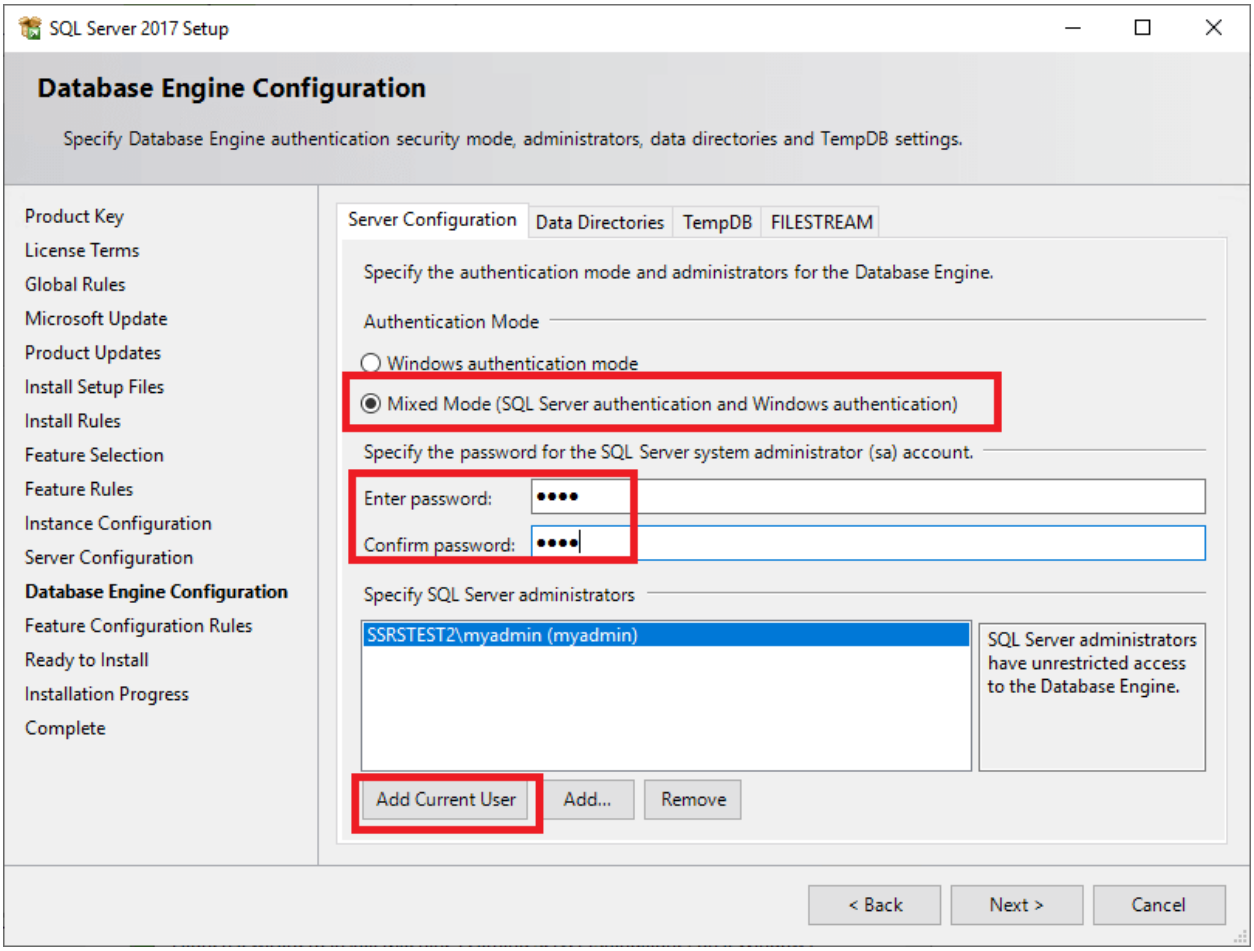


Figure 6: Security settings

Review the summary shown in Figure 7 and go make yourself a cup of coffee or tea after clicking *Install* because it could take 10 or 20 minutes for the installation to run.

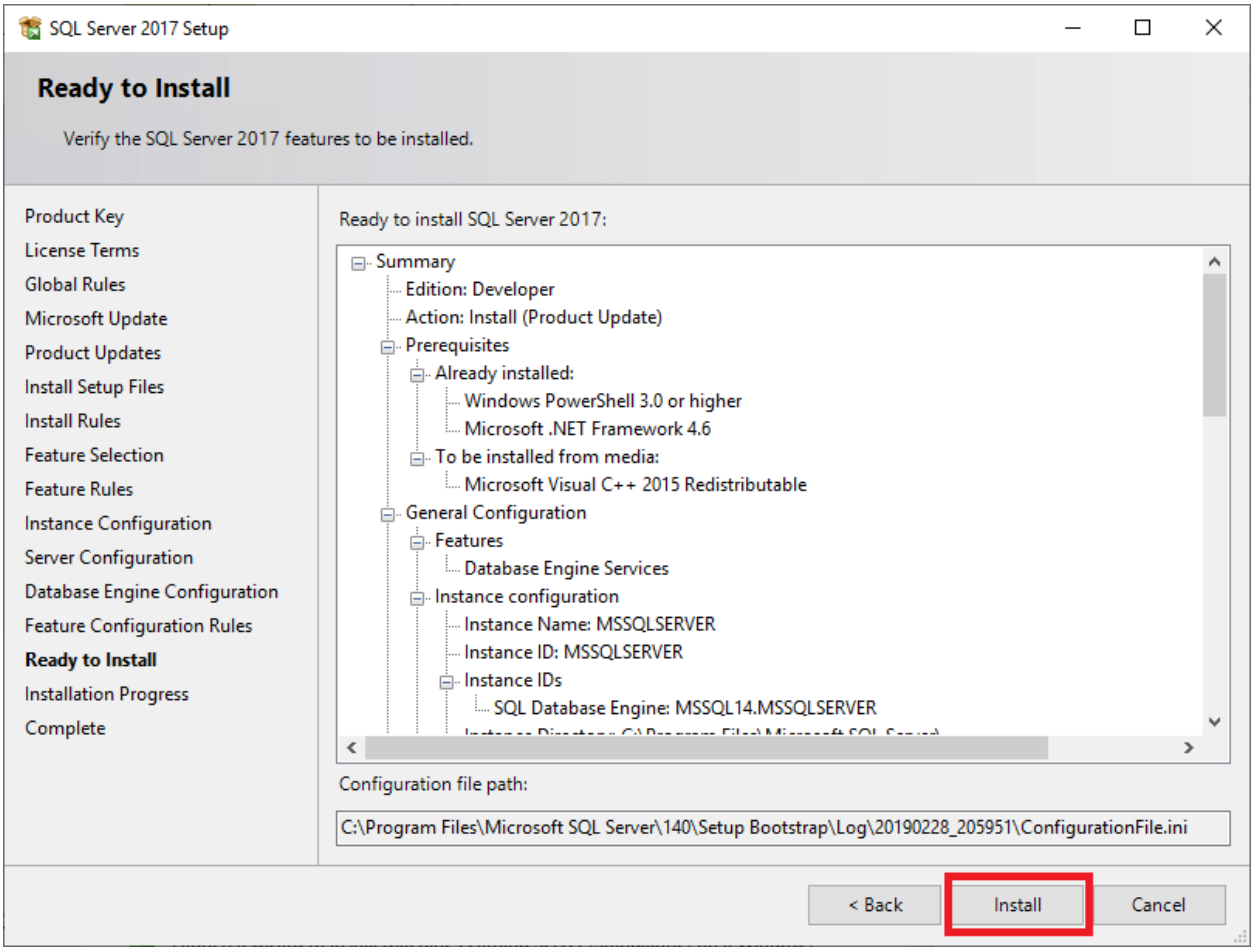


Figure 7: The Summary

Figure 8 shows that the installation was a success!

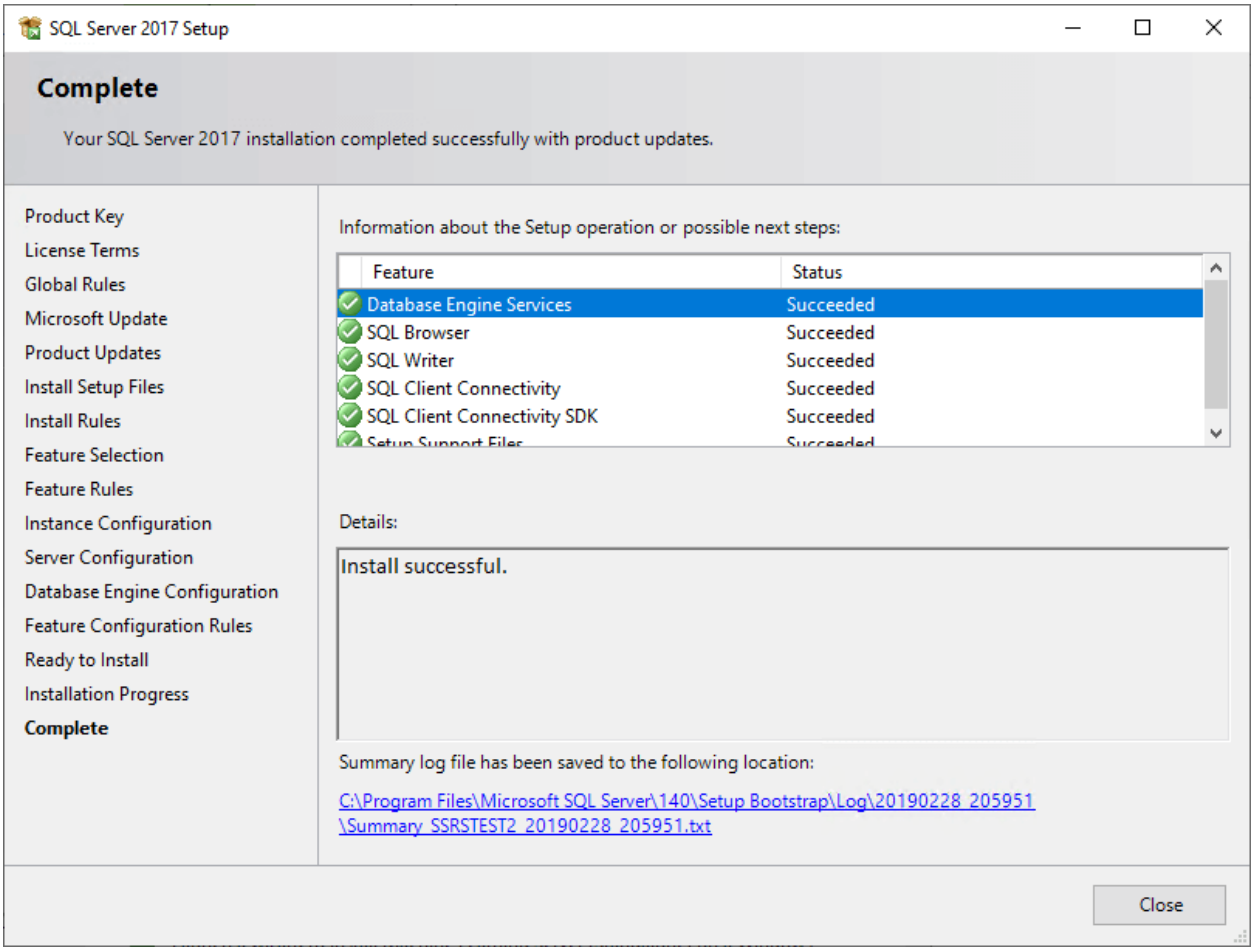


Figure 8: Success!

Restore databases

Restoring a Sample Database

To learn T-SQL, you'll need to restore one or more sample databases. The main database that will be used for the examples is called *AdventureWorks2017*. At the time of this writing, Microsoft is hosting the sample databases on GitHub, a well-known software repository site. Search for the *AdventureWork2017.bak* file. A *bak* file is a backup file, and that's what you need. Figure 9 shows the download page.

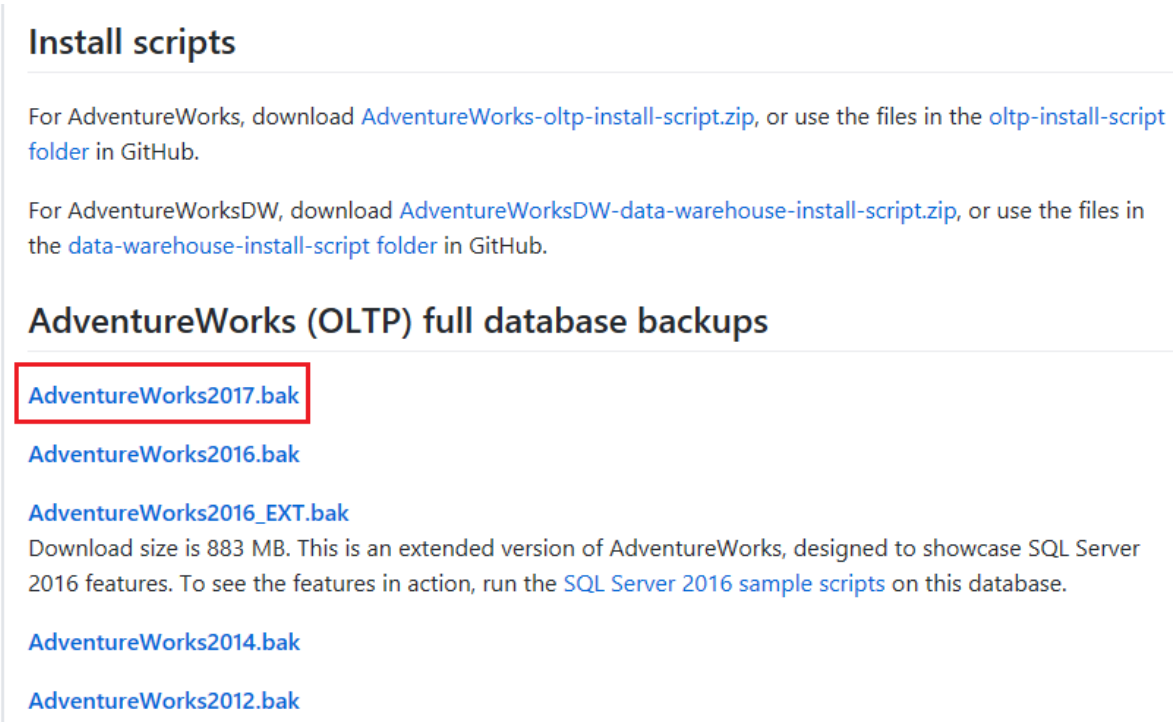
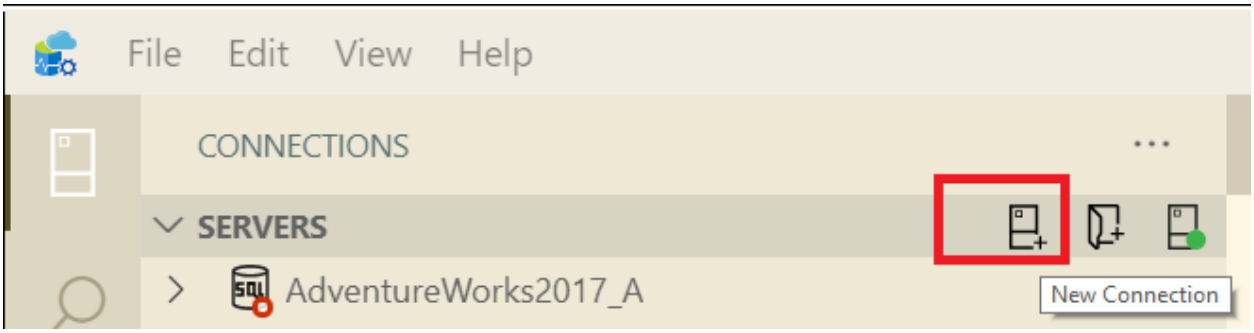


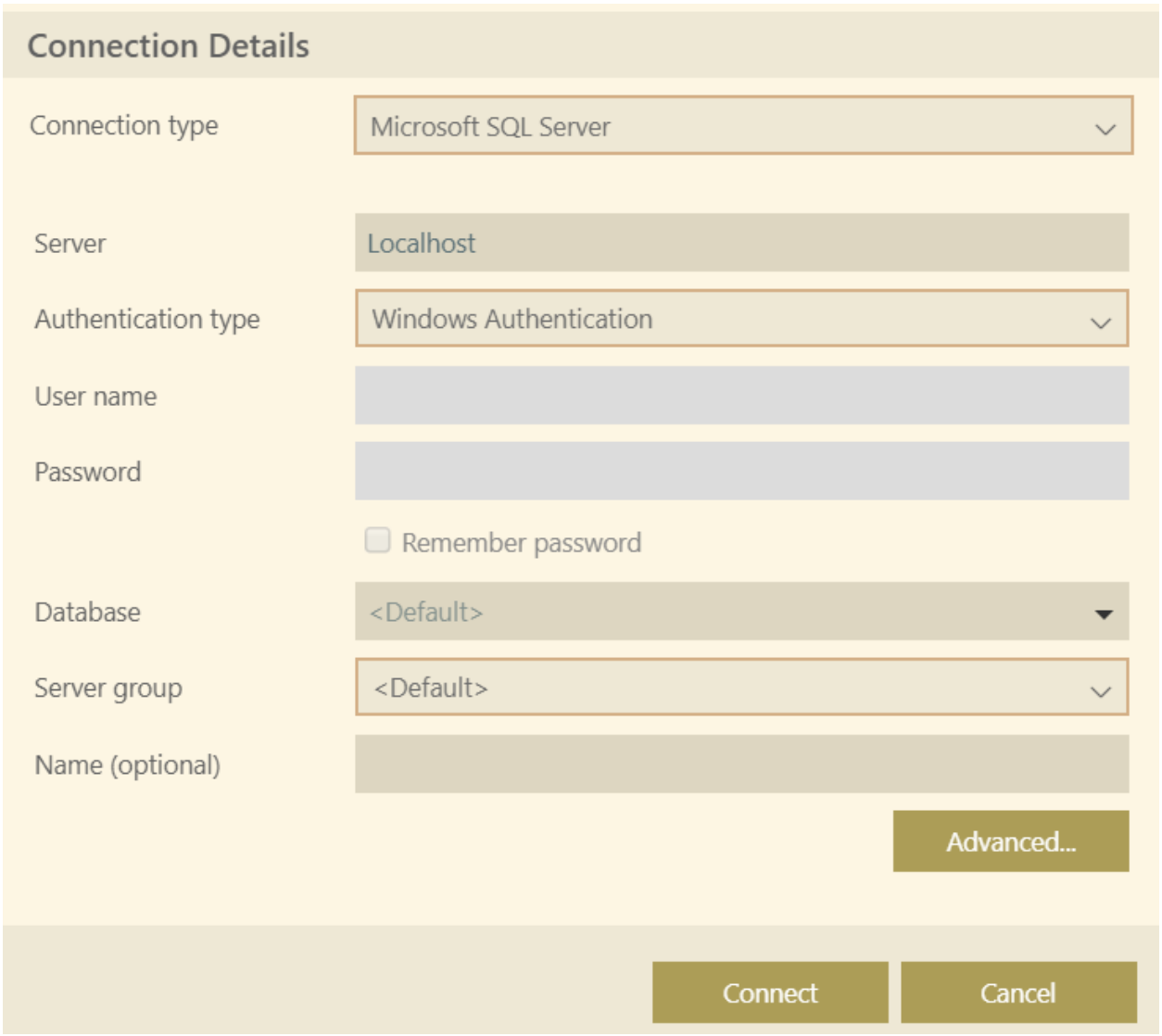
Figure 9: Download AdventureWorks

Do not download the file to your *Desktop*, *Documents*, or *Downloads* file. Since SQL Server is running under an identity that is not you, it can't see files in those locations. I recommend just downloading to a file in your *C:* drive such as *C:\Temp*.

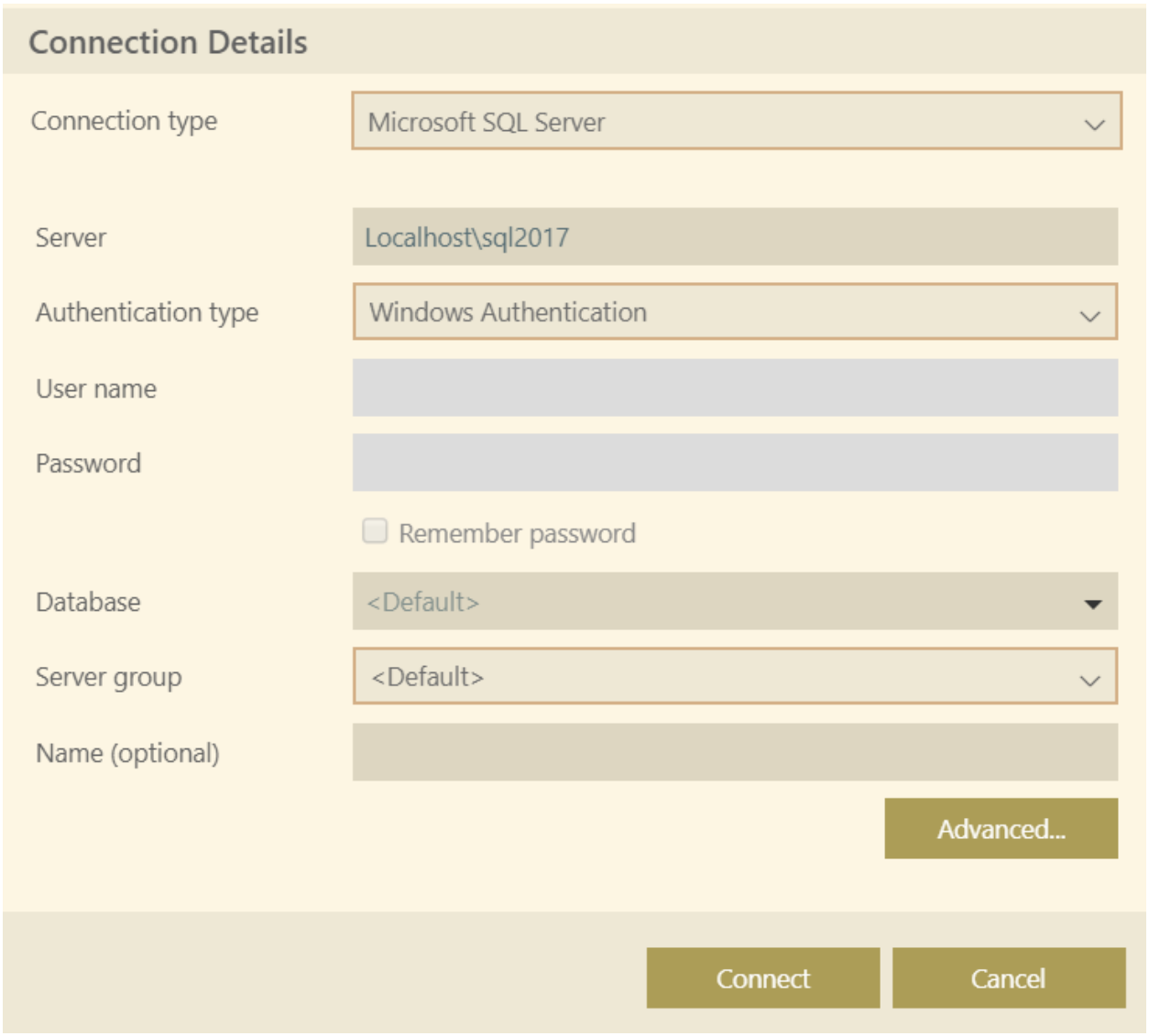
Launch Azure Data Studio and connect to your local database server. Click New Connection.



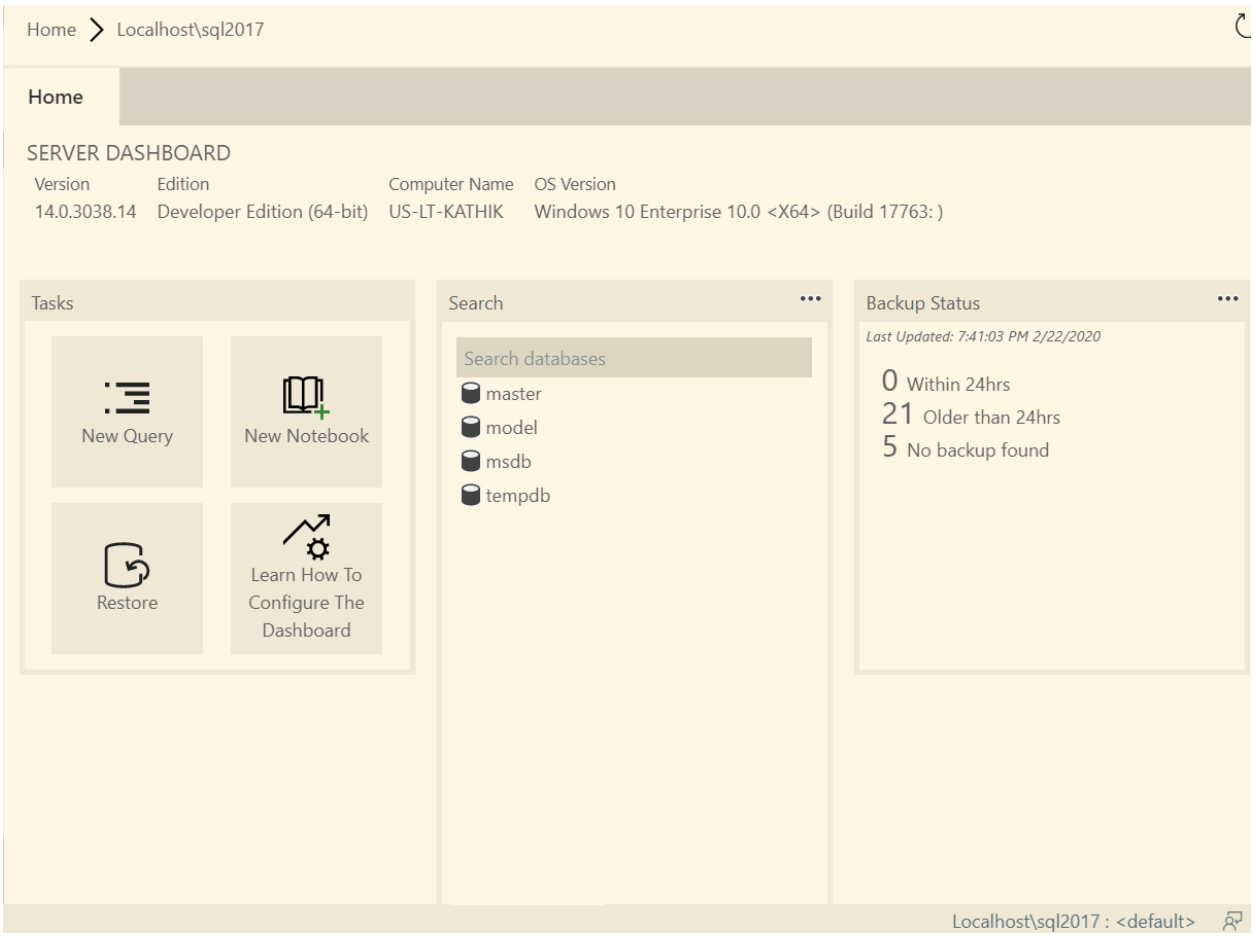
You can typically use Windows Authentication to connect to your local database. You can use "localhost" for the server name. Note that if you installed a named server, you'll need to use localhost*instancename* replacing "instancename" with the name you chose.



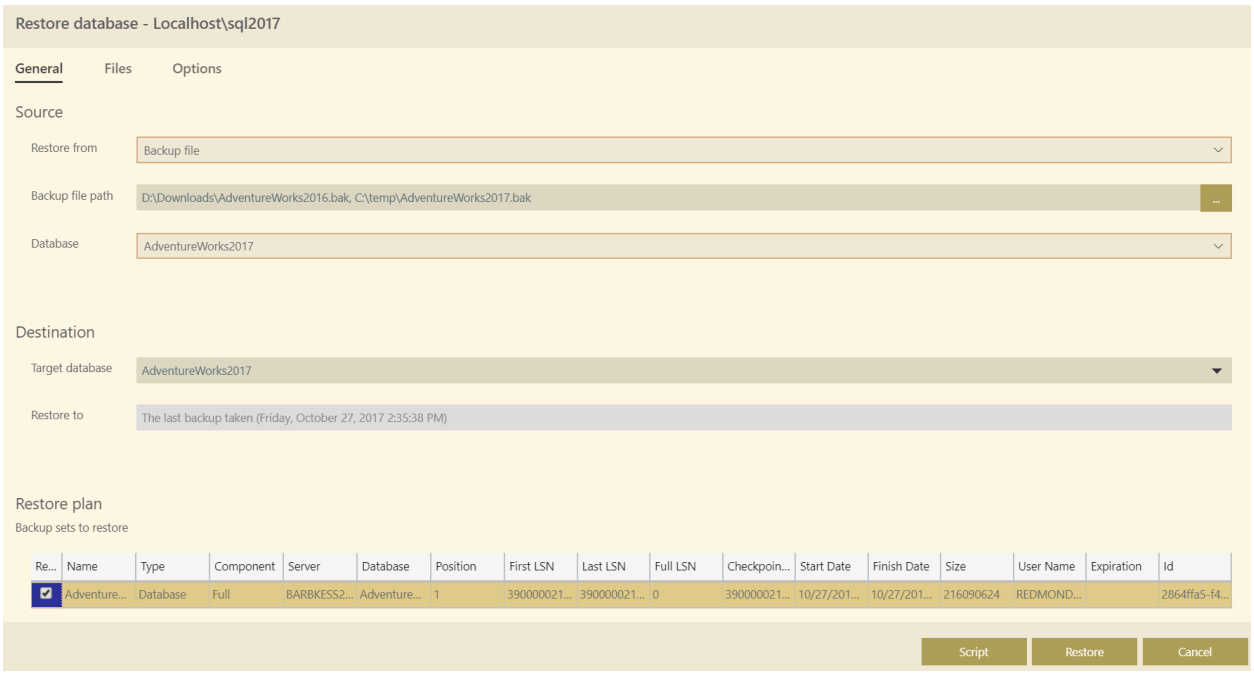
Here's an example where I installed a "named instance" of SQL Server named SQL2017:



After clicking Connect, you will be connected to your local instance. Right-click the server name and select Manage. This page will open.



On the Restore Database page, select “Backup File” for the Restore from setting. Click the ellipsis and navigate to your download file. Make sure the database name is correct. Click Restore to perform the restore.


Restore database - Localhost\sql2017
General
Files
Options
Source
Restore from
Backup file
Backup file path
D:\Downloads\AdventureWorks2016.bak, C:\temp\AdventureWorks2017.bak
...
Database
AdventureWorks2017
Destination
Target database
AdventureWorks2017
Restore to
The last backup taken (Friday, October 27, 2017 2:35:38 PM)
Restore plan
Backup sets to restore
Re... Name Type Component Server Database Position First LSN Last LSN Full LSN Checkpoin... Start Date Finish Date Size User Name Expiration Id
Adventure... Database Full BARBKESS2... Adventure... 1 390000021... 390000021... 0 390000021... 10/27/201... 10/27/201... 216090624 REDMOND... 2864ffa5-f4...
Script
Restore
Cancel