

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.



Developer

SQL Server 2017 Developer is a full-featured free edition, licensed for use as a development and test database in a non-production environment.

[Download now](#) ↓

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.

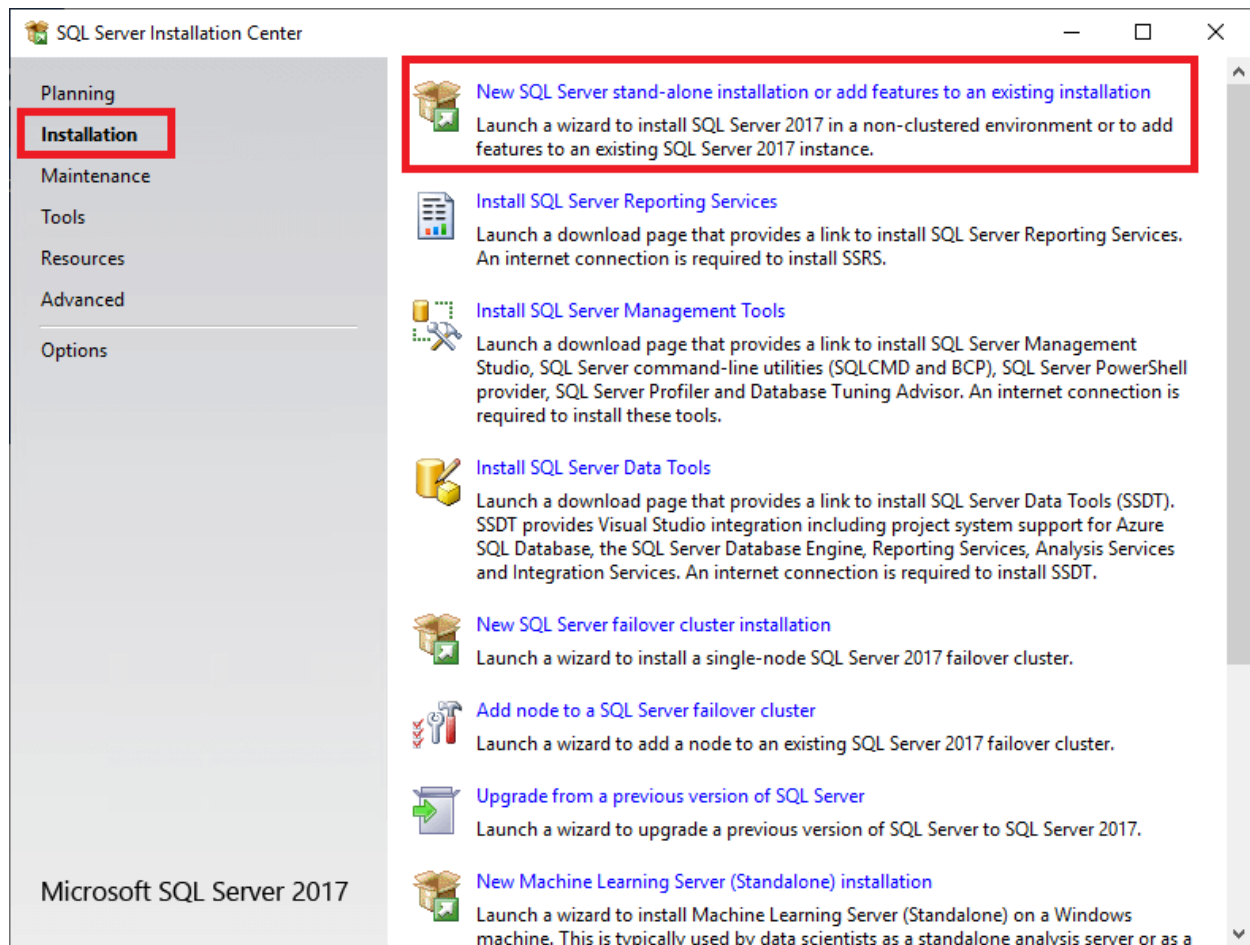


Figure 2: Launch the installation

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

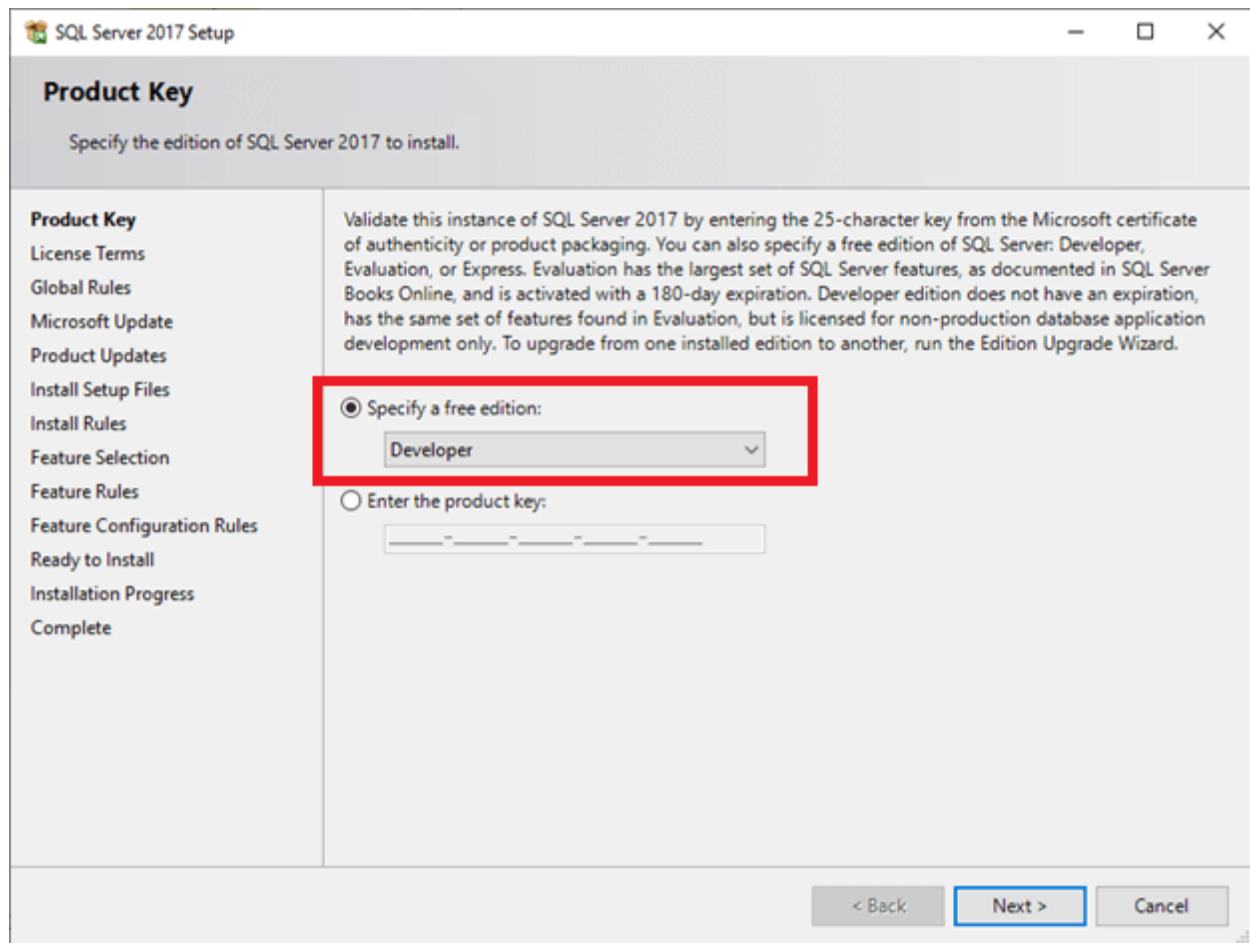


Figure 3: The Developer edition

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

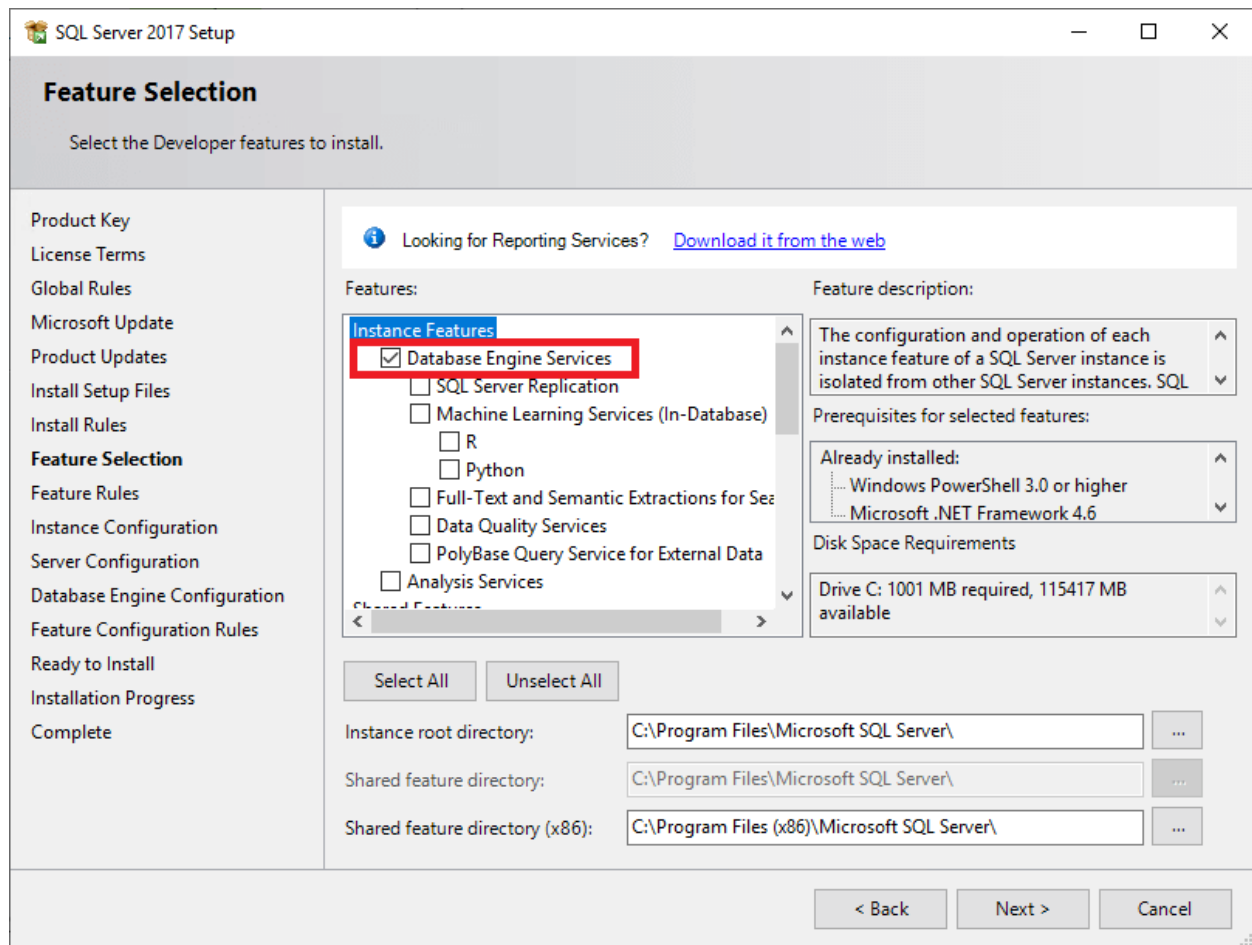


Figure 4: Features

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.

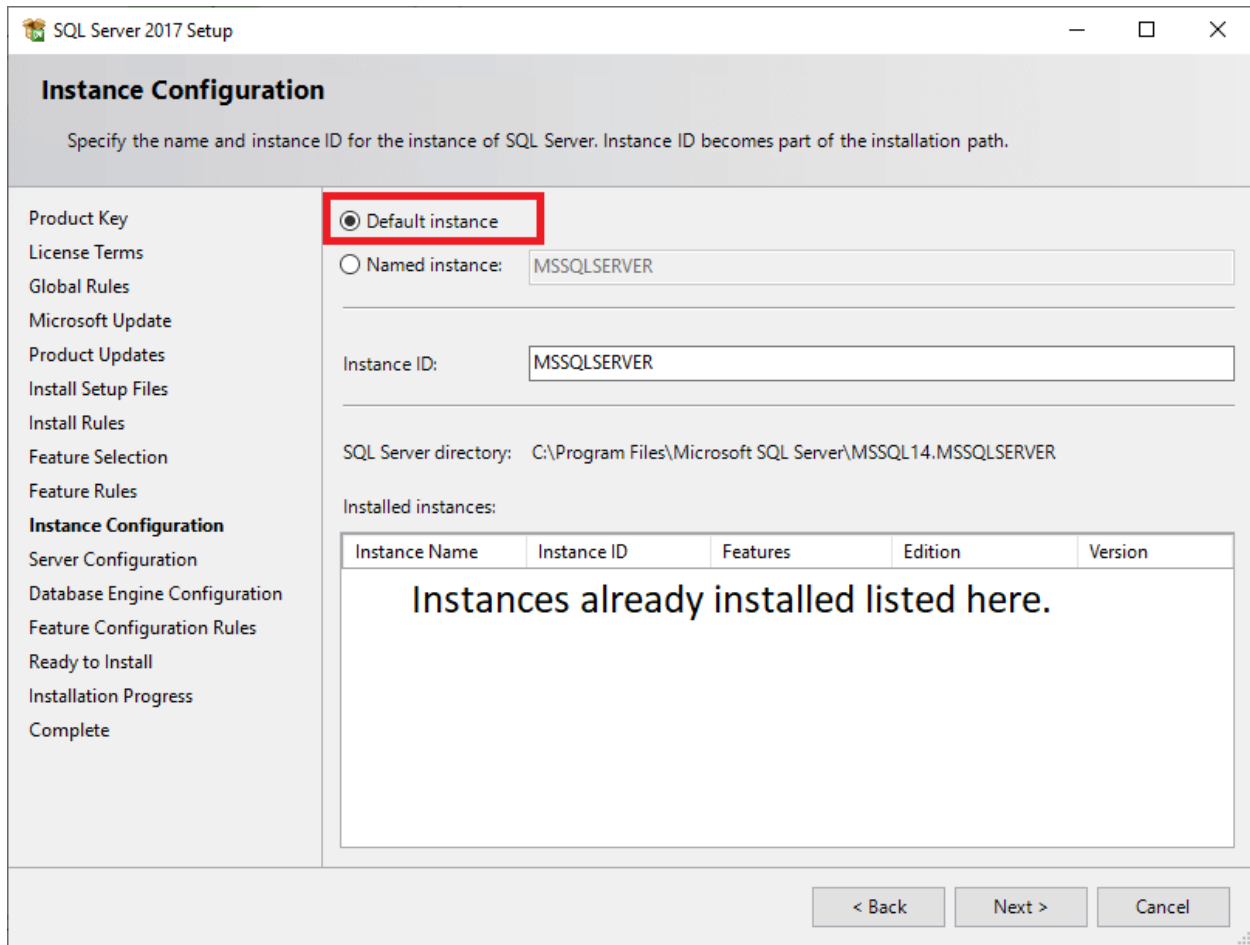


Figure 5: Install the Default instance

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.

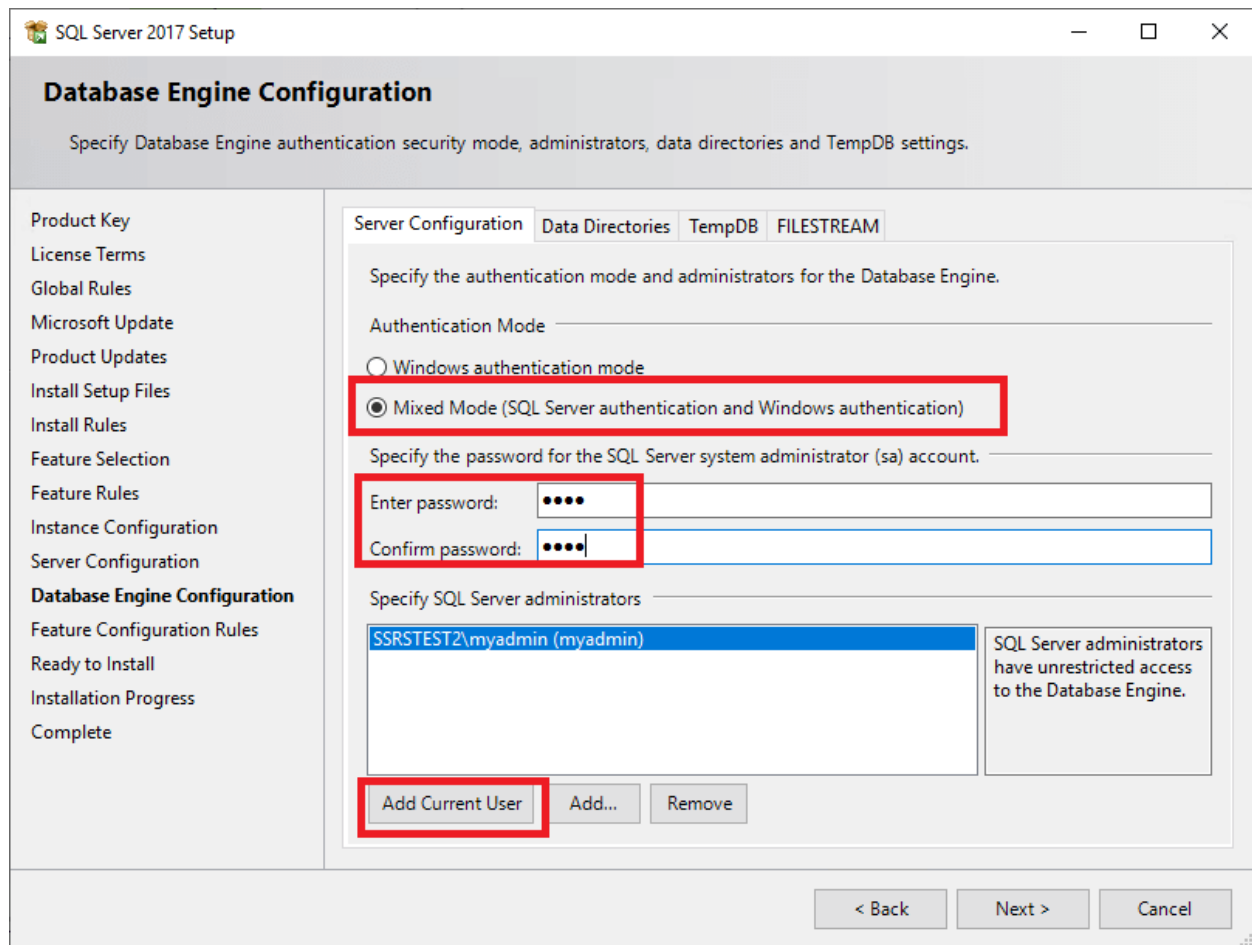


Figure 6: Security settings

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.

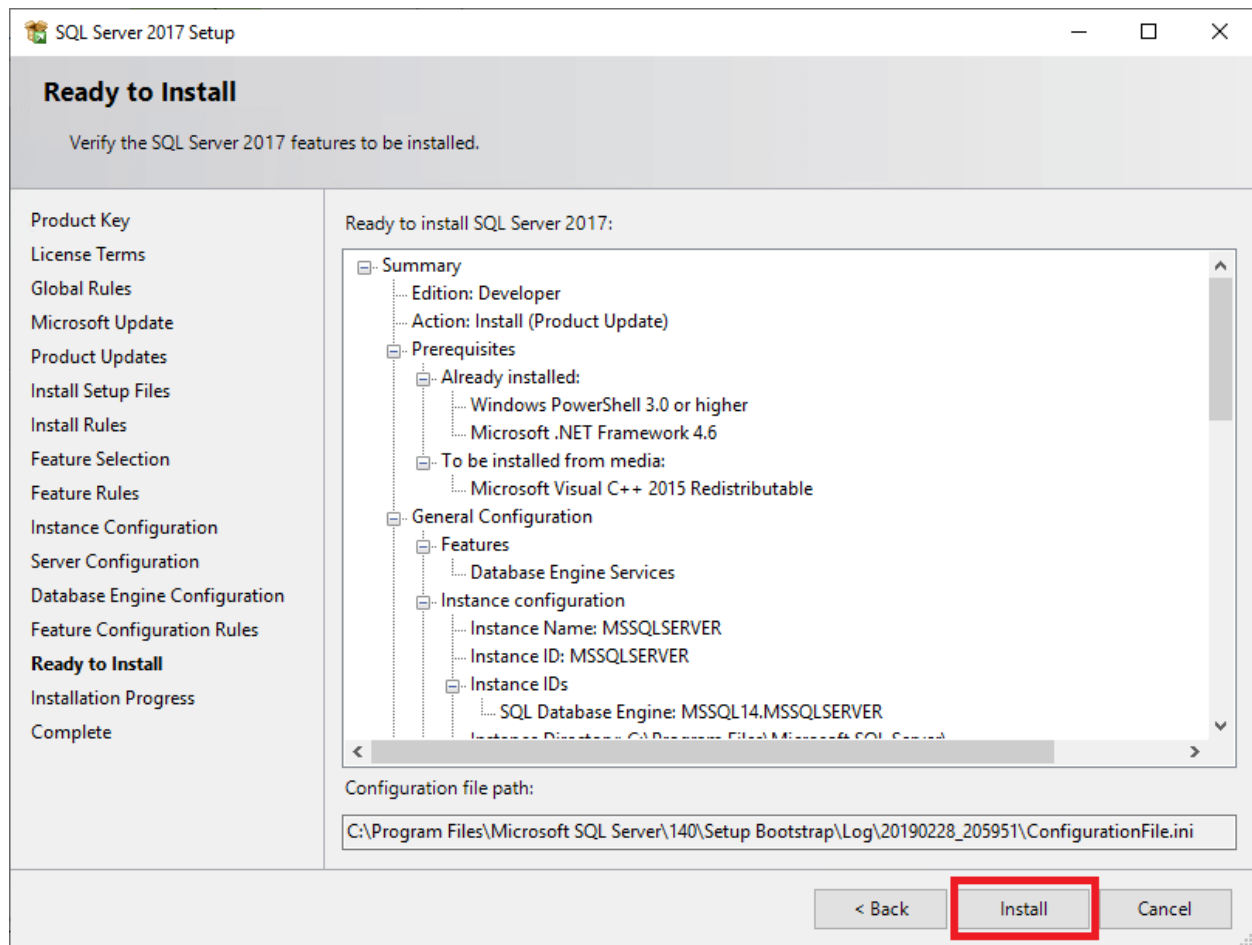


Figure 7: The Summary

Figure 8 shows that the installation was a success!

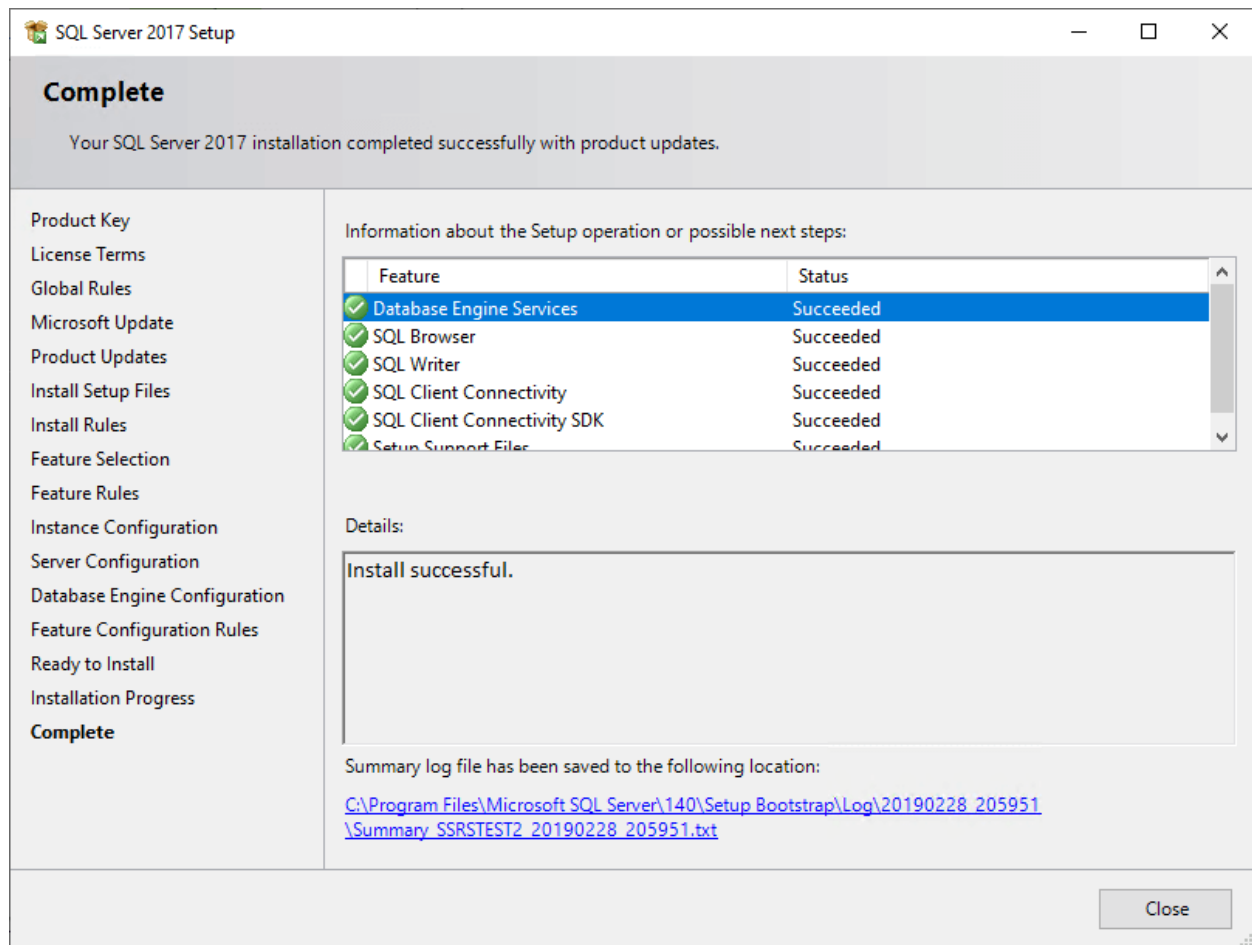


Figure 8: Success!

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.

Install scripts

For AdventureWorks, download [AdventureWorks-oltp-install-script.zip](#), or use the files in the [oltp-install-script](#) folder in GitHub.

For AdventureWorksDW, download [AdventureWorksDW-data-warehouse-install-script.zip](#), or use the files in the [data-warehouse-install-script](#) folder in GitHub.

AdventureWorks (OLTP) full database backups

[AdventureWorks2017.bak](#)

[AdventureWorks2016.bak](#)

[AdventureWorks2016_EXT.bak](#)

Download size is 883 MB. This is an extended version of AdventureWorks, designed to showcase SQL Server 2016 features. To see the features in action, run the [SQL Server 2016 sample scripts](#) on this database.

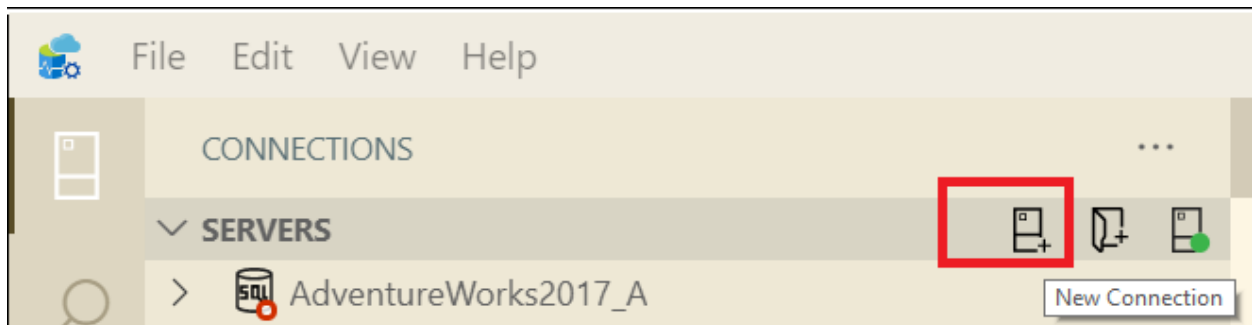
[AdventureWorks2014.bak](#)

[AdventureWorks2012.bak](#)

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.

Connection Details

Connection type

Microsoft SQL Server

Server

Localhost

Authentication type

Windows Authentication

User name

Password

☐ Remember password

Database

<Default>

Server group

<Default>

Name (optional)

Advanced...

Connect

Cancel

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

Connection Details

Connection type

Microsoft SQL Server

Server

localhost\sql2017

Authentication type

Windows Authentication

User name

Password

☐ Remember password

Database

<Default>

Server group

<Default>

Name (optional)

Advanced...

Connect

Cancel

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


Home > Localhost\sql2017


Home


SERVER DASHBOARD


| Version | Edition | Computer Name | OS Version |
|--------------|----------------------------|---------------|--|
| 14.0.3038.14 | Developer Edition (64-bit) | US-LT-KATHIK | Windows 10 Enterprise 10.0 <X64> (Build 17763:) |

Tasks


New Query


New Notebook


Restore


Learn How To Configure The Dashboard

Search

Search databases

- master
- model
- msdb
- tempdb

Backup Status

Last Updated: 7:41:03 PM 2/22/2020

| | |
|----|------------------|
| 0 | Within 24hrs |
| 21 | Older than 24hrs |
| 5 | No backup found |

Localhost\sql2017 : <default>

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

GeneralFilesOptions

Source

Restore fromBackup file

Backup file pathD:\Downloads\AdventureWorks2016.bak, C:\temp\AdventureWorks2017.bak

DatabaseAdventureWorks2017

Destination

Target databaseAdventureWorks2017

Restore toThe 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 |
|-------------------------------------|--------------|----------|-----------|-------------|--------------|----------|--------------|--------------|----------|--------------|--------------|--------------|-----------|------------|------------|----------------|
| <input checked="" type="checkbox"/> | Adventure... | Database | Full | BARBKES2... | Adventure... | 1 | 390000021... | 390000021... | 0 | 390000021... | 10/27/201... | 10/27/201... | 216090624 | REDMOND... | | 2864ffa5-f4... |

ScriptRestoreCancel