

WA3021 Introduction to SQL

Classroom Setup Guide

Web Age Solutions

Table of Contents

Part 1 - Minimum Software Requirements.....	3
Part 2 - Files required.....	3
Part 3 - Instructions.....	3
Part 4 - Installing Microsoft SQL Server 2019 Express Edition.....	4
Part 5 - Install SQL Server Management Studio (SSMS).....	17
Part 6 - Verification.....	21
Part 7 - Installing the Example Databases.....	23
Part 8 - Troubleshoot the <i>RECOVER PENDING state</i>	25
Part 9 - Verification of Northwind database.....	26
Part 10 - Summary.....	28

Part 1 - Minimum Software Requirements

- **Windows 10** or **Windows Server 2016** or newer
- 8 GB RAM
- 20 GB Storage Space
- Internet

Part 2 - Files required

- __1. Download the the latest **WA3021-REL_X_X-Supporting.zip** file.
- __2. You will download the Installation packages for the following programs:
 - Microsoft SQL Server Express 2019
 - Microsoft SQL Server Management Studio (SSMS)
 - Microsoft Example Databases

Part 3 - Instructions

- __1. Make sure the account that you are using to install the software has administrative privileges and the student using this machine will have the same rights.
- __2. Extract the **WA3021-REL_X_X-Supporting.zip** file to C:\
- __3. Review that the following folder was created:
 - **C:\LabFiles**
- __4. Extract the **C:\LabFiles\AdventureWorksDW-data-warehouse-install-script.zip** to **C:\LabFiles**
- __5. Verify the files were extracted from the previous step.
- __6. Copy the LabGuide on the desktop.

Part 4 - Installing Microsoft SQL Server 2019 Express Edition-

__1. The files for this section should be included under the Supporting.zip file and can be unpacked from there. You should find a file named as **SQL2019-SSEI-Expr.exe**

Note: If not found, open a browser and then search and download the **Microsoft SQL Server 2019 Express Edition**. Try using the following link:

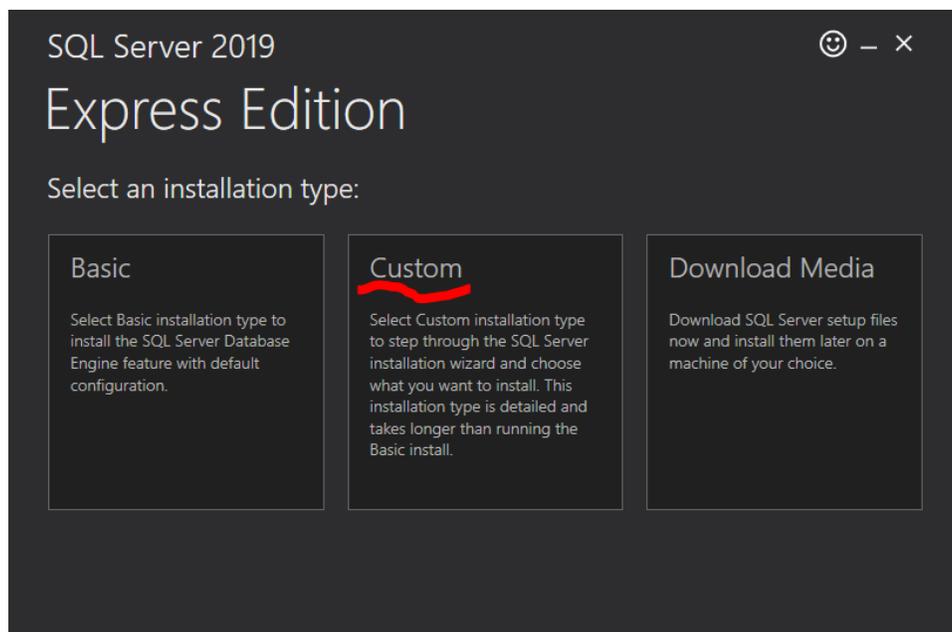
<https://www.microsoft.com/en-us/download/details.aspx?id=101064>

__2. Open the folder \WA3021_REL_X_X\Software\ or where you downloaded the file and execute this file by double clicking it:

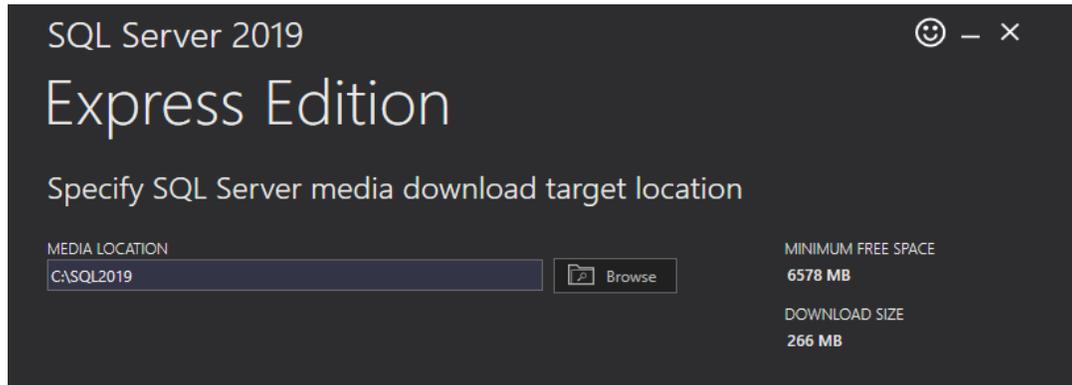
SQL2019-SSEI-Expr.exe

__3. Agree to the installation pop-up.

__4. Select **Custom** Installation.

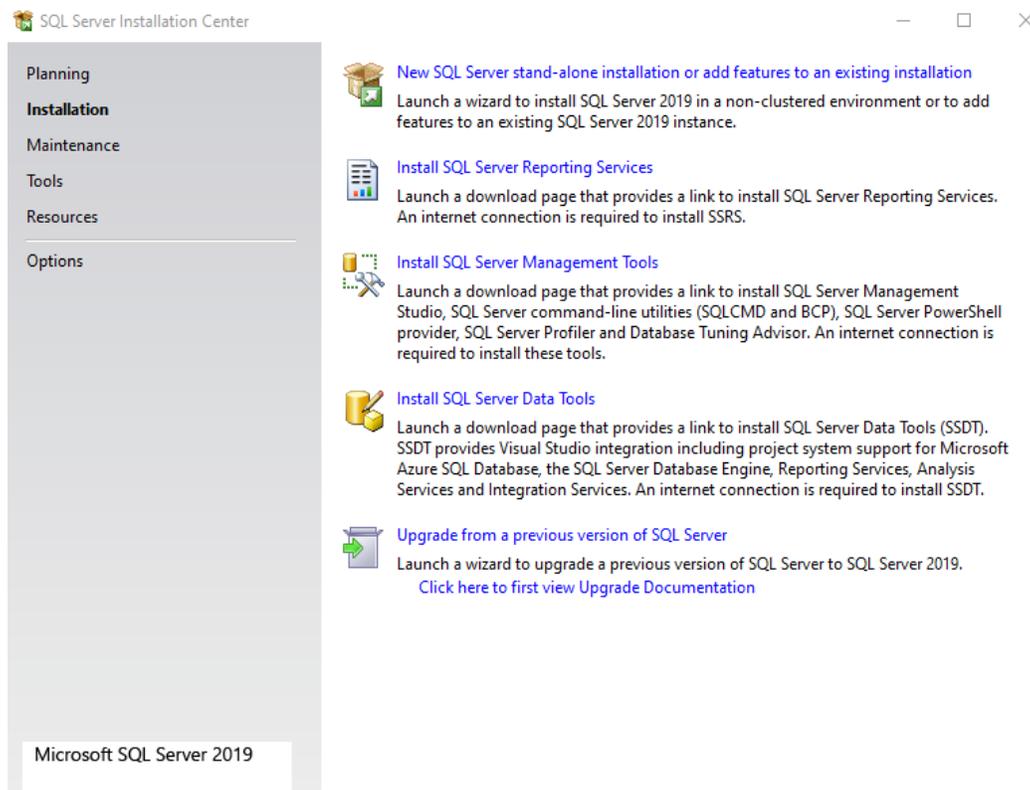


__5. Accept the default media location path.



__6. Click **Install**

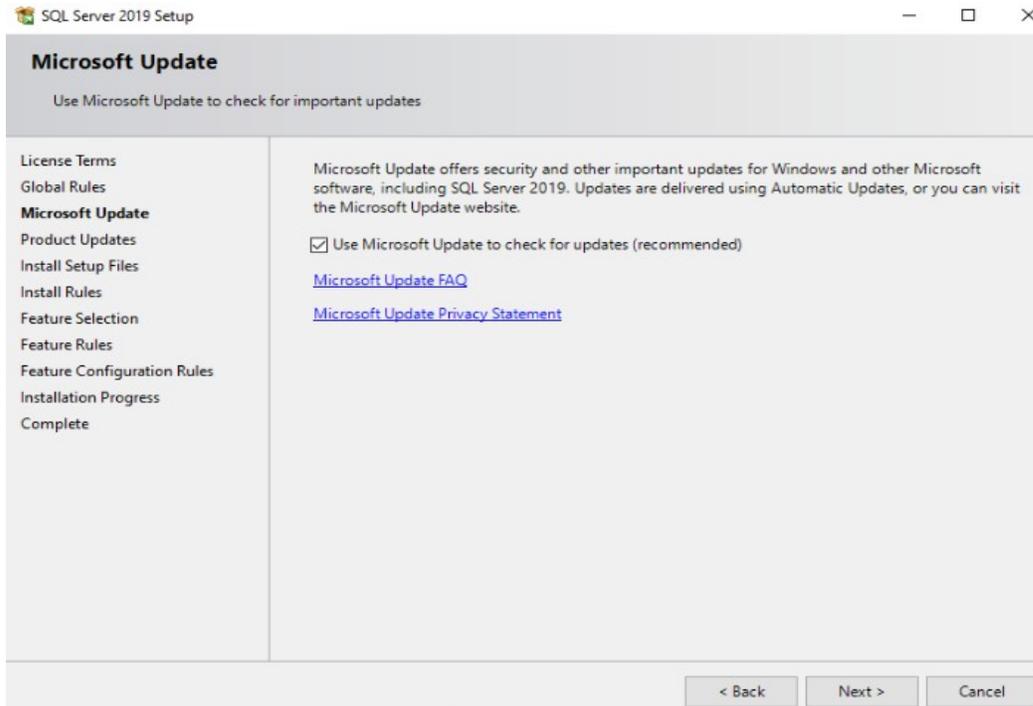
__7. In the **Installation Screen**, click **New SQL Server stand-alone installation...**



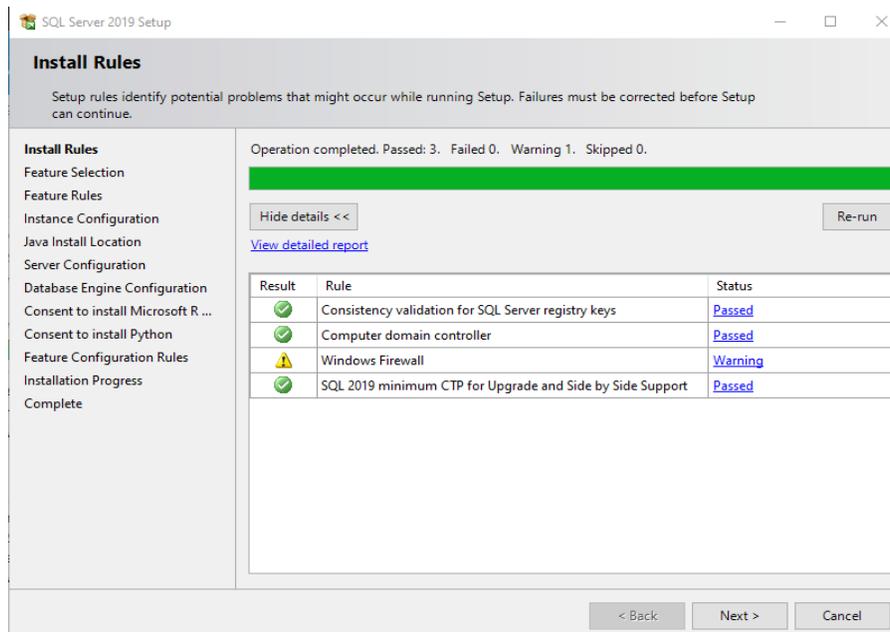
__8. Accept the License by checking the box, click **Next**

I accept the license terms and [Privacy Statement](#)

9. You may be asked to include Microsoft Update feature, if so click the checkbox. Click Next.



10. You will be asked to wait prior being presented with the **Install Rules** screen:

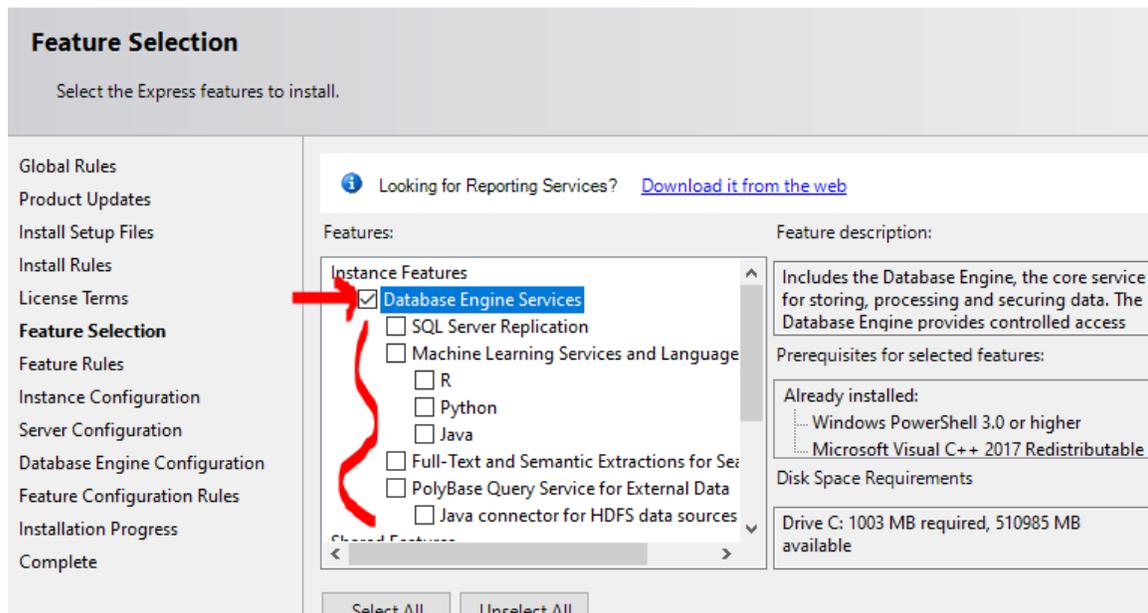


__11. Ignore the warning regarding Windows Firewall. Click **Next**

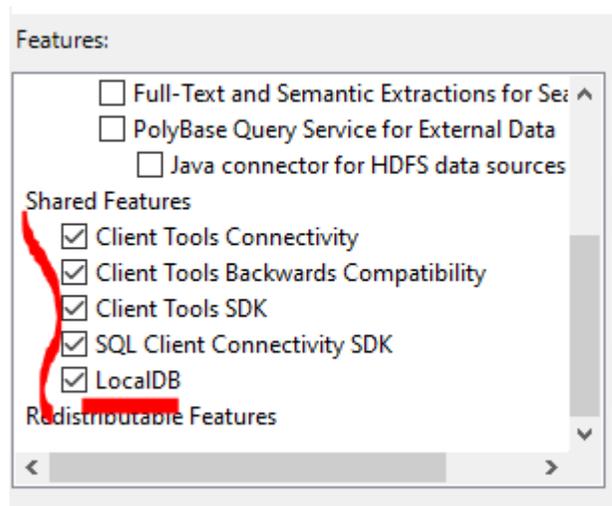
In the **Feature Selection** dialog, perform the following operations:

__12. Deselect all the services under **Database Engine Services**;

__13. Check the box again to select only the **Database Engine Services**.



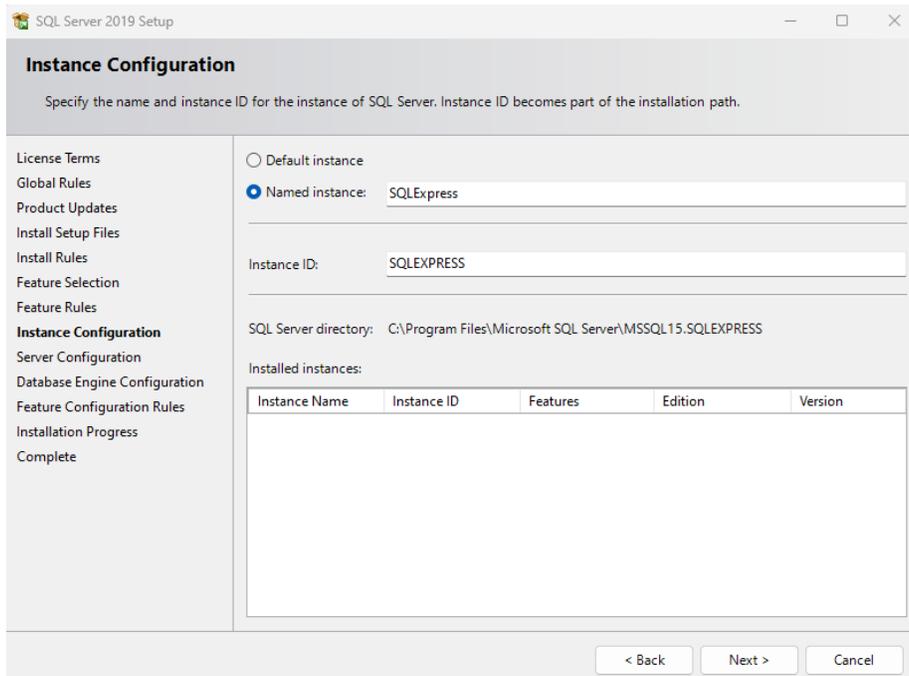
__14. Scroll down, and under **Shared Features**, select all the features, check the **LocalDB**



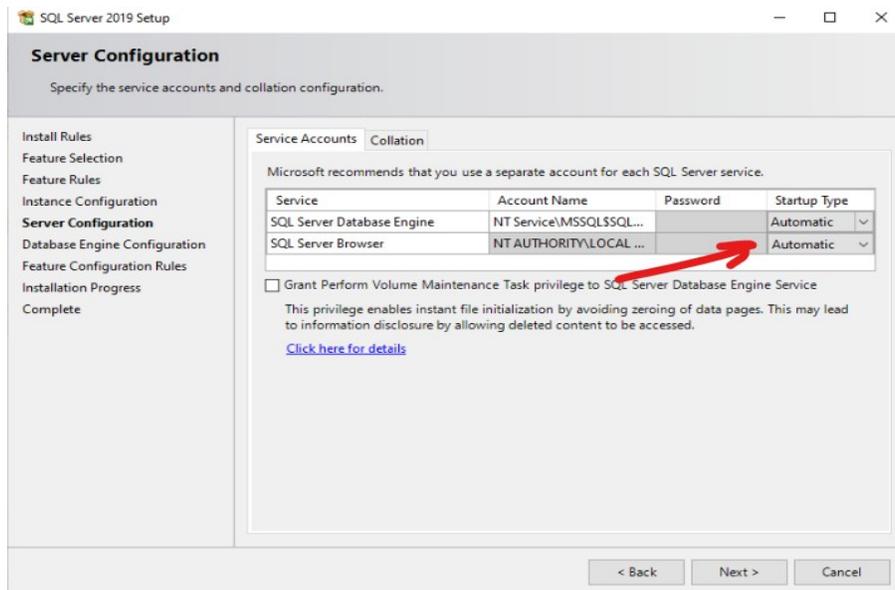
__15. Keep the **Instance root directory** as **C:\Program Files\Microsoft SQL Server**

__16. Click **Next**

__17. You should be presented with the **Instance Configuration** dialog. Accept the *Named Instance* as **SQLExpress** and click **Next**

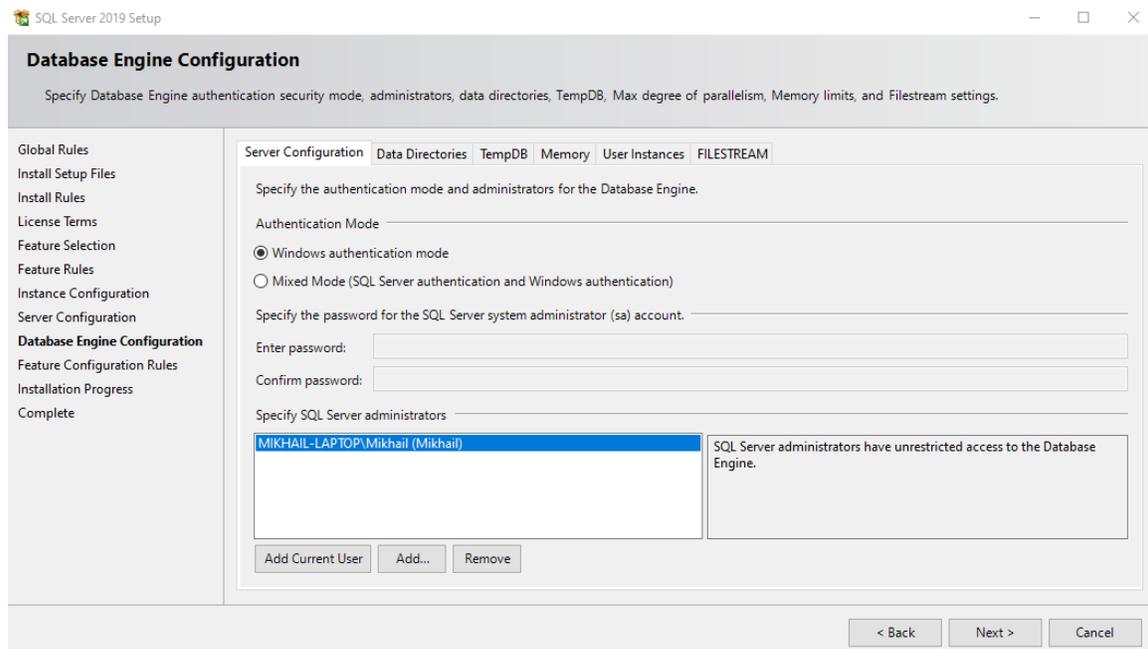


18. On the **Server Configuration** page, modify the **SQL Server Browser** setting to Startup Type **Automatic** by choosing this from the drop down and click **Next**



You will be presented with the **Database Engine Configuration** dialog.

Note, that the logged-in Windows user setting up the SQL Server Instance will become the SQL Server Administrator.



Perform the following changes:

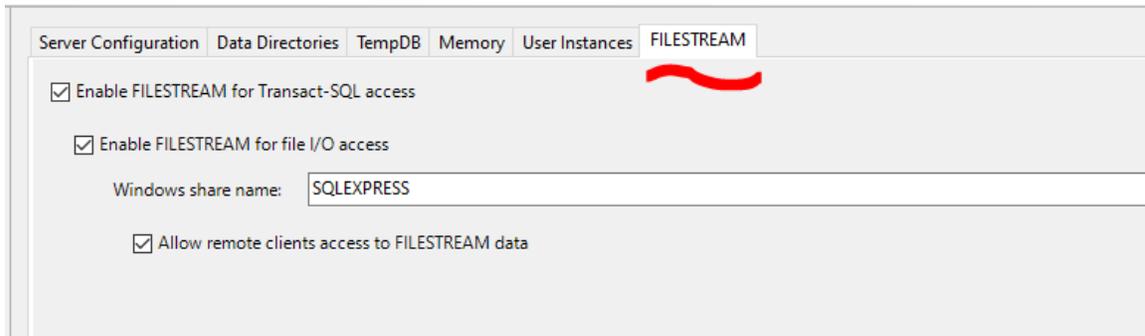
__19. Change the **Authentication mode** to **Mixed Mode ...**

__20. Enter **wasadmin** for password (this will be the password for the default SQL Server system administrator, **sa**)

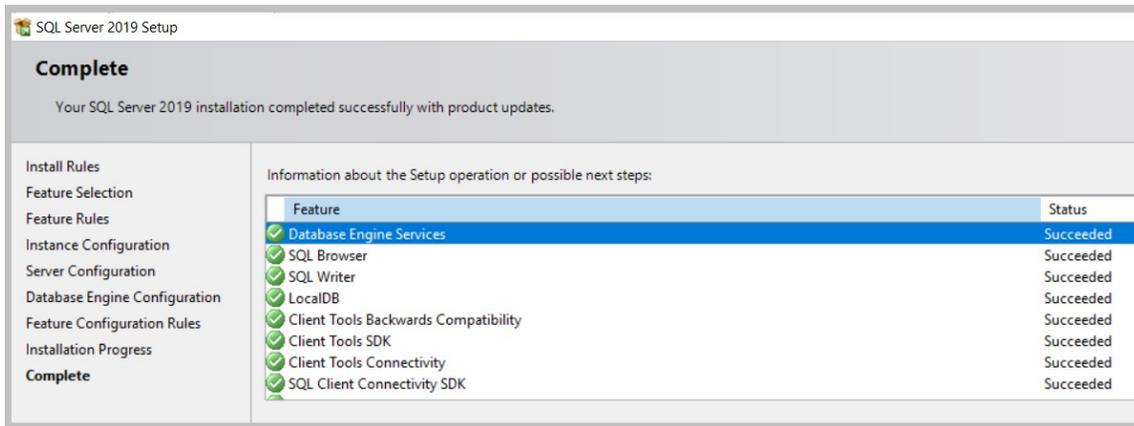
__21. Click the **FILESTREAM** tab.

__22. Select all the check boxes.

__23. Accept the *Windows share name*. Click **Next**



__24. After a few minutes, you will be presented with the **Complete** dialog. You may see that Client Tools have failed in the below screen. Again we can ignore for the moment.

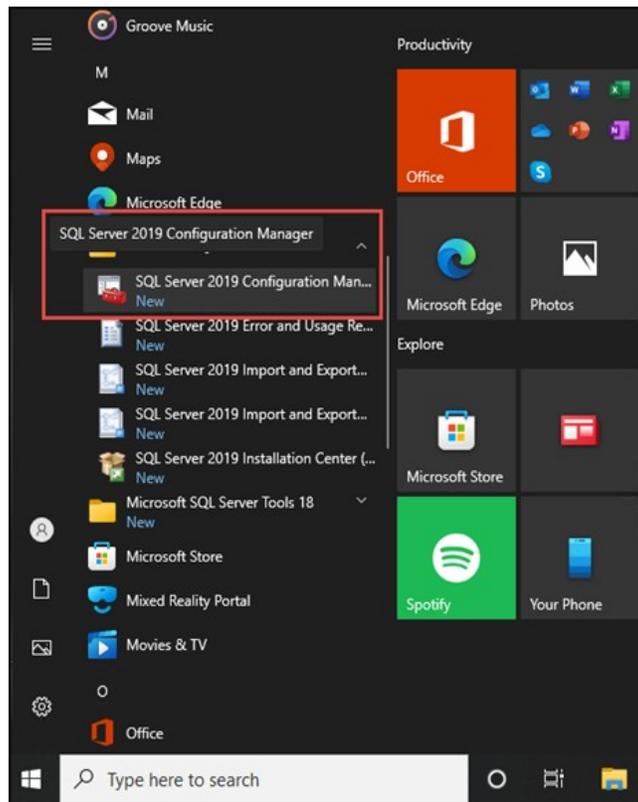


__25. Click **Close**

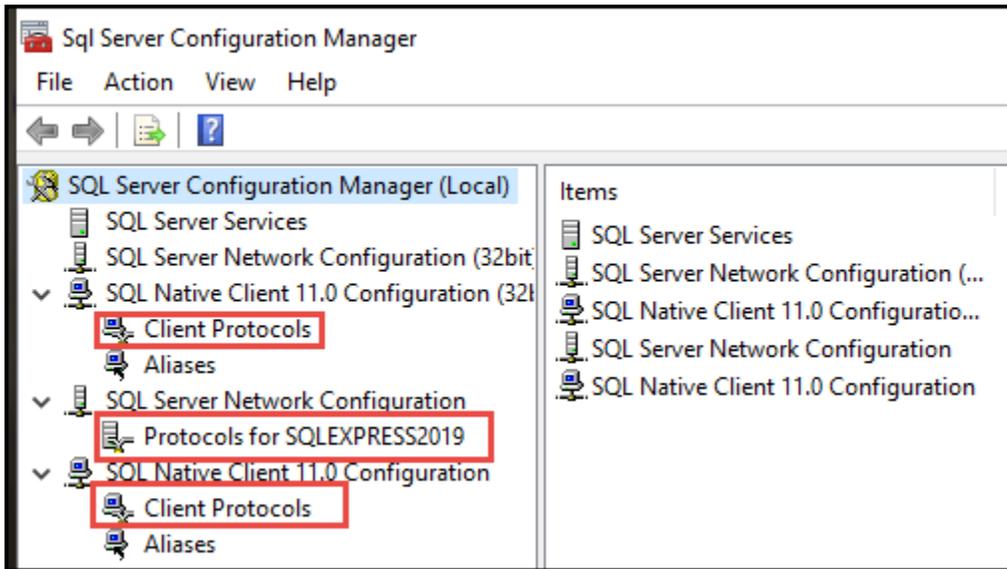
You will return to the *SQL Server Installation Center* dialog. **Leave it running for now.**

Configure SQL Server 2019 Configuration Manager

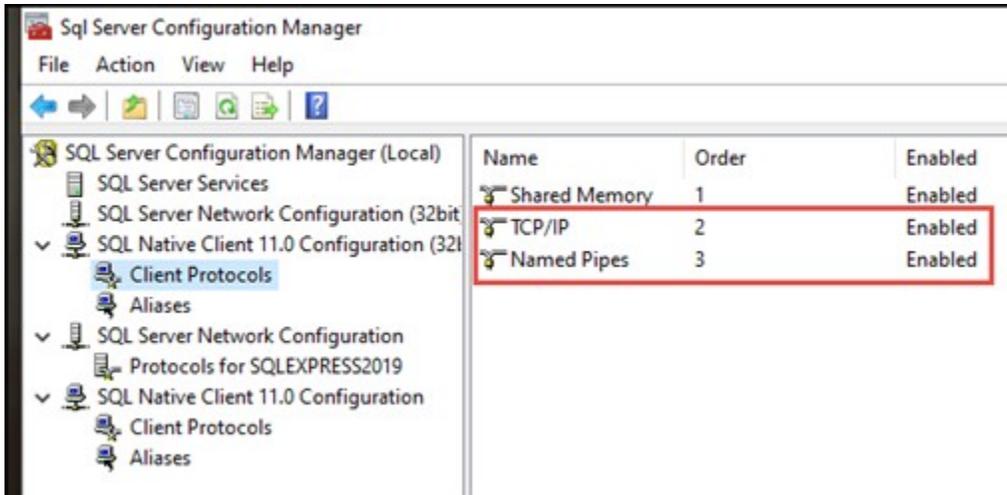
__26. In the Start Menu locate SQL Server 2019 Configuration Manger



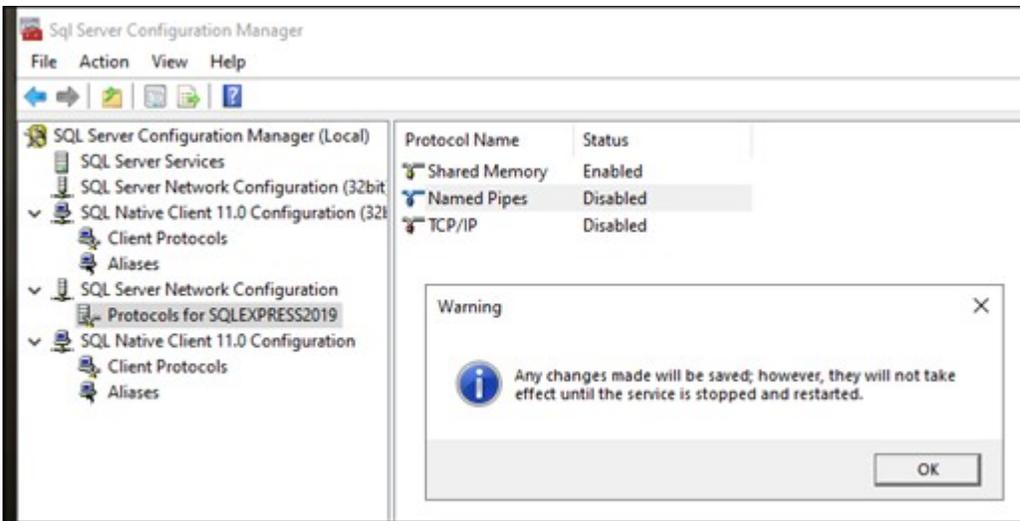
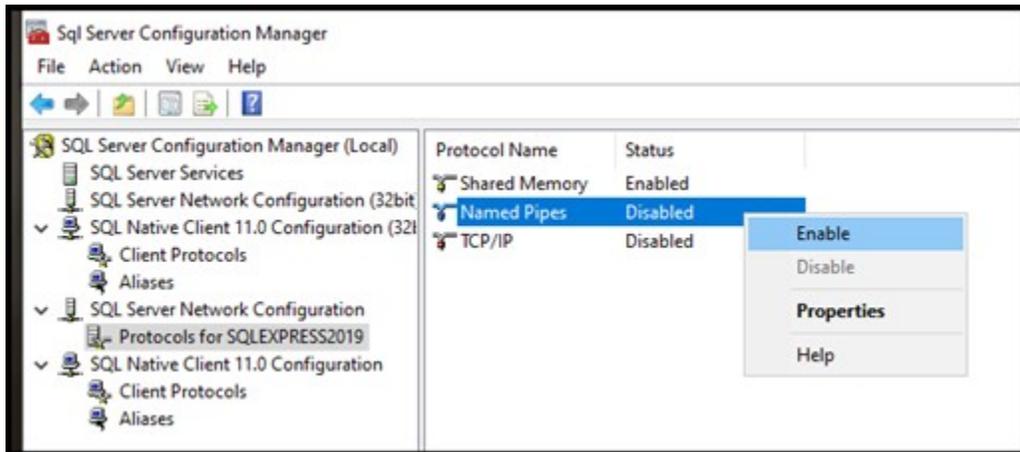
__27. Expand SQL Native Client 11.0 Configuration, SQL Server Network Configuration and SQL Native Client 11.0 Configuration



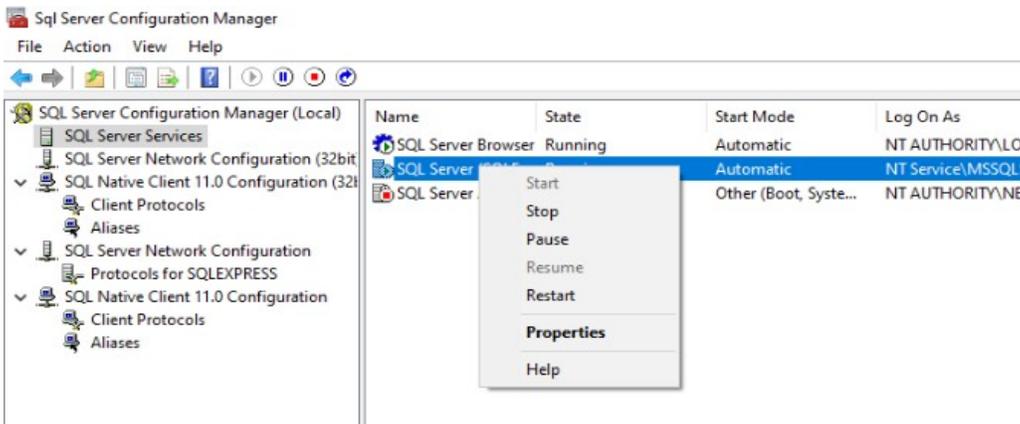
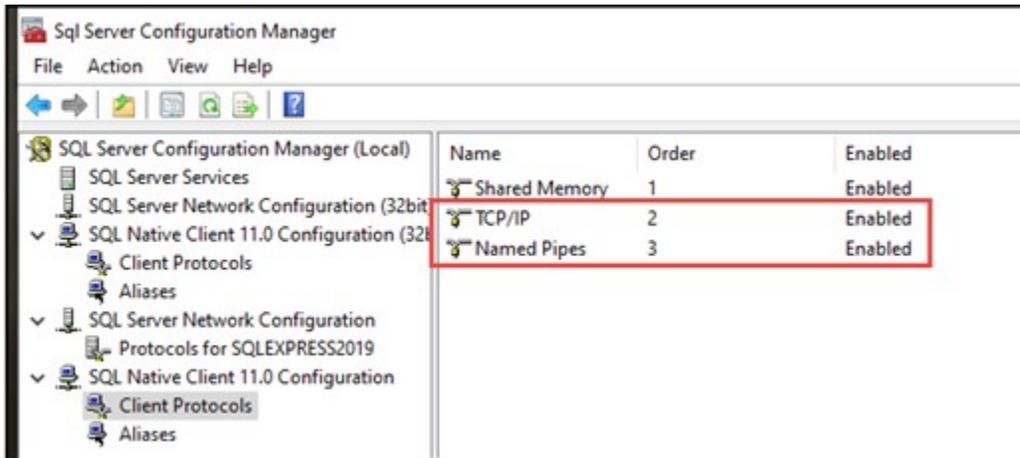
__28. For the **SQL Native Client 11.0 Configuration (32 bit) Client Protocols** if not enabled, enable **TCP/IP** and **Named Pipes** by right clicking on either TCP/IP or Named Pipes followed by OK



__29. Do the same for the **SQL Server Network Configuration**, enabling **Named Pipes** if not enabled followed by OK.



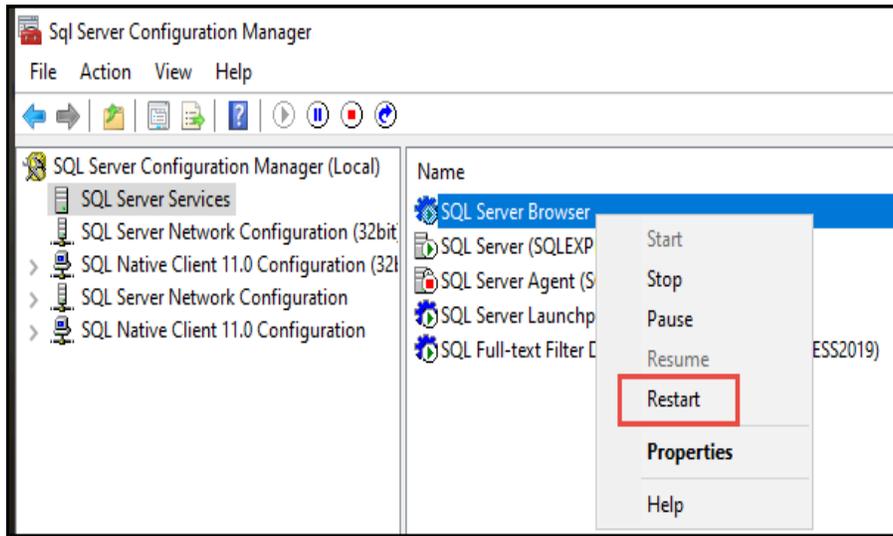
__30. Finally change the **SQL Native Client 11.0 Configuration Client Protocols**, enabling **Named Pipes** if not enabled followed by OK.



31. Select SQL Server Services



32. Right click on SQL Server Browser and restart



__33. Right click on **SQL Server** and **restart**

__34. Close the **SQL Server Configuration Manager** dialog box.

Part 5 - Install SQL Server Management Studio (SSMS)

__1. The files for this section should be included under the Supporting.zip file and can be unpacked from there. You should find a file named as **SSMS-Setup-ENU.exe**

__2. Open the folder \WA3021_REL_X_X\Software\ or where you downloaded the file and execute this file by double clicking it.

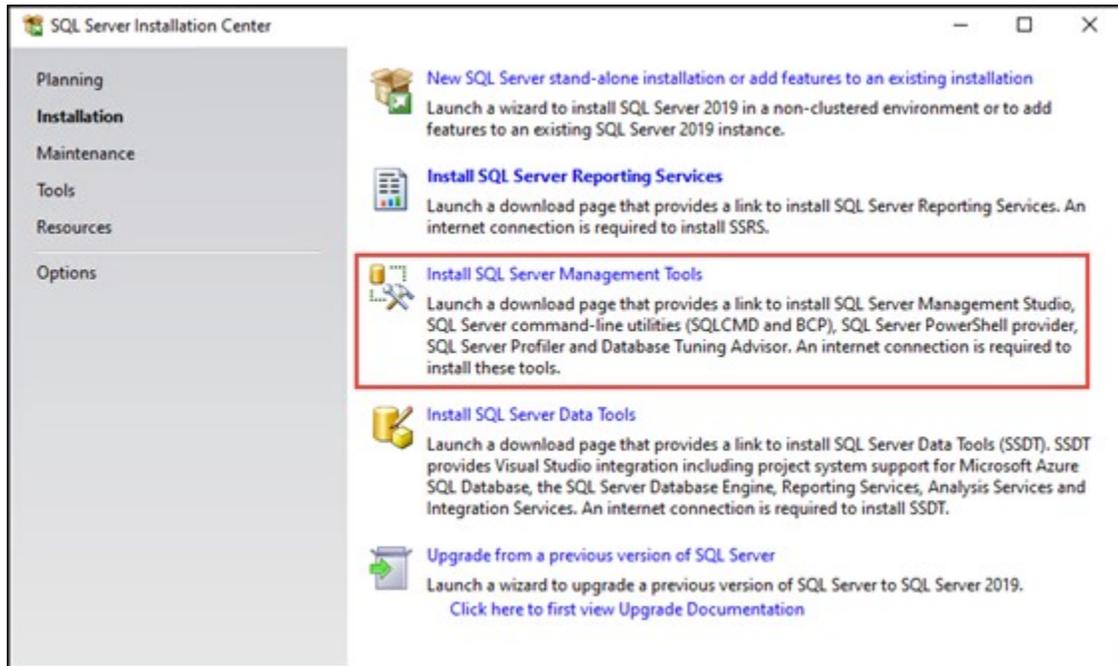
SSMS-Setup-ENU.exe

__3. You should see a window like this when you are installing it with the **18.10 release version** or the *version* you just downloaded. Skip to the **Install SSMS** section below.

Note: If the file **SSMS-Setup-ENU.exe** not found, open a browser and then search and download the **Microsoft SQL Server Management Studio**. Try using the following link:

<https://docs.microsoft.com/en-us/sql/ssms/download-sql-server-management-studio-ssms?view=sql-server-ver15>

Note: Alternatively to the above steps, you can just use the SQL Server Installation Center dialog shown below available through the Microsoft SQL folder under the Windows Start Orb menu.



Previous SSMS releases

Download previous SSMS versions by selecting the download link in the related section.

 Expand table

SSMS version	Build number	Release date
19.1	19.1.56.0	May 24, 2023
19.0.2	19.0.20209.0	March 13, 2023
19.0.1	19.0.20200.0	February 2, 2023
19.0	19.0.20196.0	January 26, 2023
18.12.1	15.0.18420.0	June 21, 2022
17.9.1	14.0.17289.0	November 21, 2018
16.5.3	13.0.16106.4	January 30, 2017

4. The installer will direct you to [Download SQL Server Management Studio \(SSMS\) - SQL Server Management Studio \(SSMS\) | Microsoft Docs](#).

5. Scroll to the section called **Previous SSMS releases**

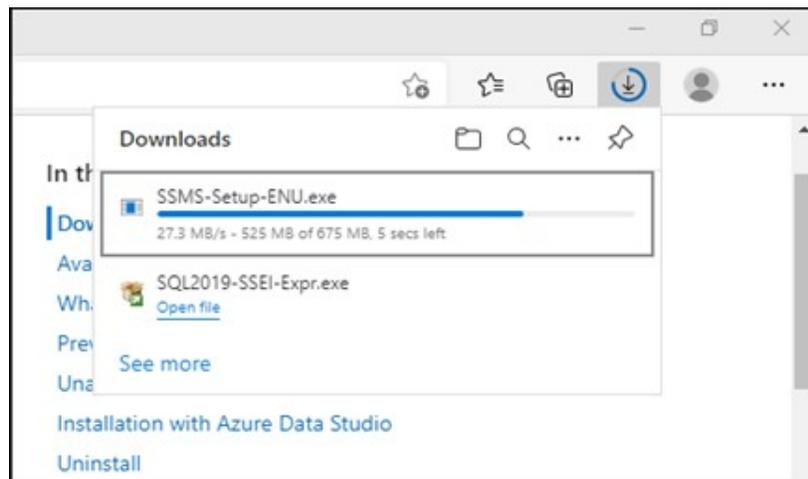
6. Then select the Free Download for **SQL Server Management Studio (SSMS) 18.x.x**

18.12.1

↓ [Download SSMS 18.12.1](#)

- Release number: 18.12.1
- Build number: 15.0.18424.0
- Release date: June 21, 2022

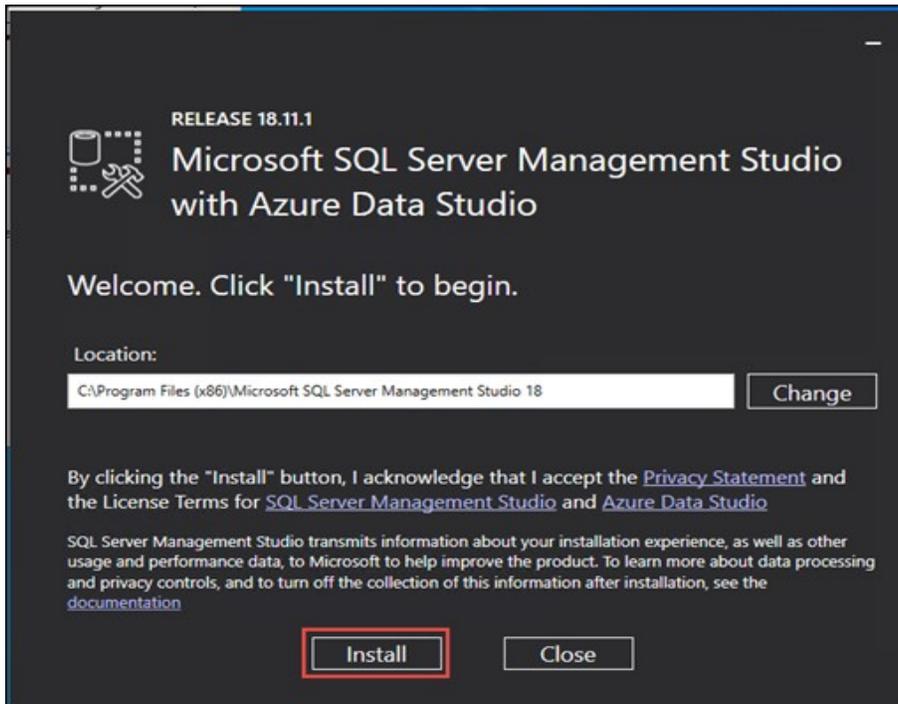
The download process will begin.



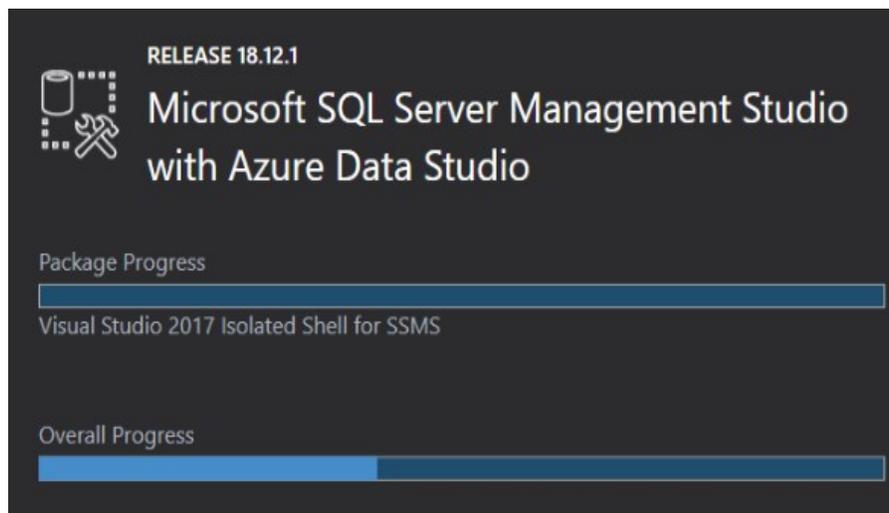
__7. Double click the SSMS-Setup installer found in the Downloads folder.

INSTALL SSMS

__8. Select Install.

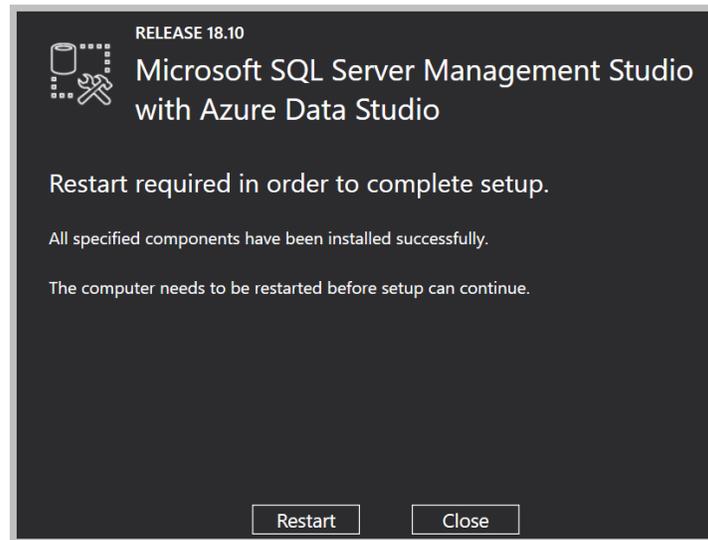


The installation will begin



__9. After a while you will see this window below, click **Restart**.

The Windows OS should restart



Part 6 - Verification

__1. From the **Start Orb Menu**, open the app tab **Microsoft SQL Server Tools 18** start the **Microsoft SQL Server Management Studio**



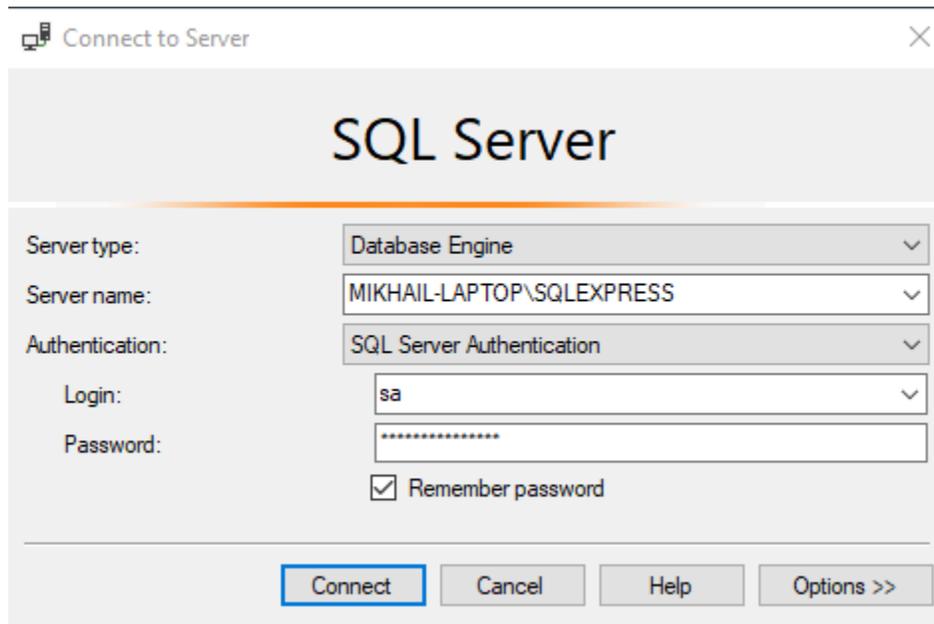
In the SQL Connect dialog that opens, perform the following operations:

__2. Make a shortcut to the desktop.

__3. In the *Server name*, select **Browse for more ...** and in the **Local Servers**, under **Database Engine**, select the SQL Instance you have installed (there should be only one) ending in **SQLEXPRESS**

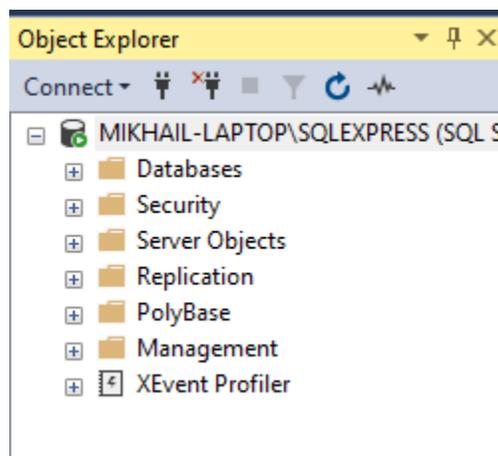
__4. In *Authentication*, select **SQL Server Authentication**, and enter **sa** for *login* and **wasadmin** for *Password*

__5. Click **Remember password**.



6. Click **Connect**

You should be able to connect to the server with the Object Explorer populated with the SQLEXPRESS instance details.



This completes the installation of Microsoft SQL Server Express.

Part 7 - Installing the Example Databases

The lecture and labs use two example databases from Microsoft:

- **Northwinds Database (used by labs) instnwnd.sql**
- **AdventureWorks database (used by lecture material) instawdbdw.sql**
found in AdventureWorksDW-data-warehouse-install-script.zip file.

1. These two files should be part of the Supporting Zip file and will be copied to the following location:

[C:\LabFiles](#)

2. Create the following folder on the Windows OS and copy the files into the folder:

C:\Samples\AdventureWorksDW

Note: These databases are both available on the following Github site, if not found within the Supporting Zip file extracted earlier.:

- <https://github.com/microsoft/sql-server-samples/tree/master/samples/databases>
adventure-works and northwind-pubs are the folders.

Install the Northwind Database

3. From the **Start Menu**, start the **Microsoft SQL Server Management Studio (SSMS)**



__4. Leave the defaults and click **Connect**

__5. Open a New Query Window within SSMS.

__6. Use Notepad or Notepad++ to open the file **instnwnd.sql** you copied it to C:\Samples\AdventureWorksDW\.

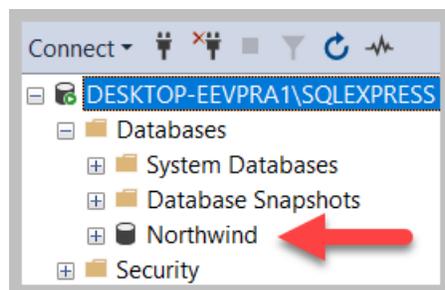
__7. Copy the file **instnwnd.sql** contents to the New Query window. You can use Edit | Select All then right click and copy the data.

__8. Then click the Green arrow button to execute the complete SQL code commands all at once. (Highlight all the SQL code if necessary).

__9. On the top left corner click the refresh button to update the connections.



__10. Expand **Databases**, you should see the **Northwind** database.



The next time you open SSMS the Northwind database should be available.

Install the Adventure Works database.

__11. Open another Query Window within SSMS.

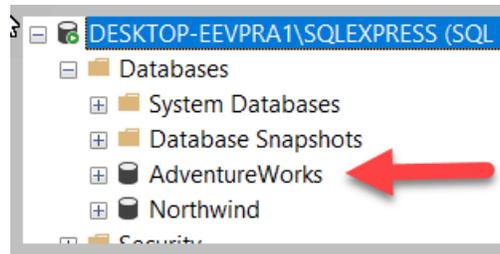
__12. Use Notepad or Notepad++ to open the file **instawdbdw.sql** you copied it to C:\Samples\AdventureWorksDW\

__13. Copy the file **instawdbdw.sql** contents to the New Query window. You can use Edit | Select All then right click and copy the data.

__14. Then click the Green arrow button to execute the complete SQL code commands all at once. (Highlight all the SQL code if necessary).

__15. Click on the the refresh button for connections as before.

__16. Expand **Databases**, you should see the **AdventureWorks** database.



__17. Expand the AdventureWorks Database using the + symbol until you see the tables.

The next time you open SSMS, the AdventureWorks database should be available.

Part 8 - Troubleshoot the **RECOVER PENDING** state

__1. If the Database ends up in the RECOVER PENDING state, you can go to the OS's Microsoft Services panel and Stop and Start SQL Server Express engine. Click the Windows Start Orb and Type services to search for the services app, then click the app link to run. This should repair the issue.

__2. If that does not fix it then you must run the following commands in the Query window:

```
ALTER DATABASE [AdventureWorks] SET EMERGENCY;
GO
ALTER DATABASE [AdventureWorks] set single_user
GO
DBCC CHECKDB ([AdventureWorks], REPAIR_ALLOW_DATA_LOSS) WITH
ALL_ERRORMSGS;
GO
ALTER DATABASE [AdventureWorks] set multi_user
GO
```

__3. Once you've run these repairs, open the OS's Microsoft Services panel and Stop and Start SQL Server Express engine.

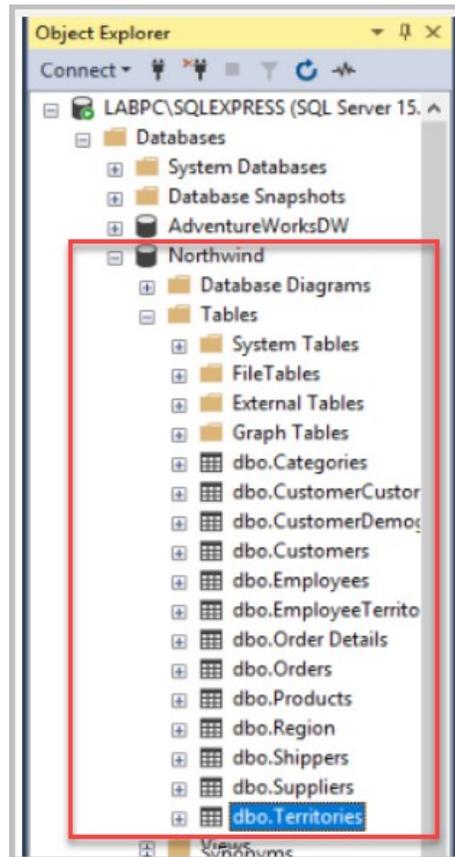
Part 9 - Verification of Northwind database

__1. Expand **Databases**.

__2. Expand **Northwind** table.

__3. Expand **tables**.

Make sure you can see all the tables below:



__4. Right click on the `dbo.Territories` table and use the Show first 1000 rows commands.

__5. You should see the `dbo.Territories` table results with data shown.

__6. Close all.

We are done installing the example databases.

Part 10 - Summary

You have successfully installed the software for this course!

If you have any question please contact us by email at support@webagesolutions.com

From US and Canada call: 1-877-812-8887 ext. 26

International call: 416-406-3994 ext. 26