Standard operating procedure

Standard Operating Procedure		Date	02nd August 2025
SOP Title	SQL Server Management studio (SSMS) v21 Online Installation		
SOP Number	SNIPPYGUY_SOP_SSMS_OFFLINE_INSTALLATION(v21)_1.0		
SOP Location			
Department	MSSQL Database Administration (DBA)		
Company Name	Snippyguy (www.snippyguy.com)		
SOP Prepared By (Author)	Sayan Dey		
SOP Creation Date	24th August 2025		
SOP Reviewed By			
SOP Review Date		Next Review Date	
SOP Effective From	24th August 2025	Last Update Date	24th August 2025
SOP Signed Off By		Signed Off Date	

CHANGE HISTORY

SOP Number	Effective Date	Significant Changes	Previous SOP Number
SNIPPYGUY_SOP_SSMS_OFFLINE_INSTALLATION(v21)_1.0	24th August 2025	Initial Creation	

SOP Number	Author	Reviewer
SNIPPYGUY_SOP_SSMS_OFFLINE_INSTALLATION(v21)_1.0	Sayan Dey	

Introduction

This Standard Operating Procedure (SOP) provides a detailed, step-by-step guideline for performing an offline installation of SQL Server Management Studio (SSMS) version 21 on Windows operating systems. SSMS is a widely used graphical tool by Database Administrators (DBAs) and IT professionals for managing SQL Server databases, configuring instances, executing queries, and performing administrative tasks. In environments where internet access is restricted due to security policies, firewall restrictions, or isolated networks, an offline installation becomes necessary. This SOP ensures that SSMS v21 can be installed reliably and securely without requiring a direct internet connection. It includes instructions for obtaining the SSMS offline installer package, validating its integrity, executing the installation with administrative privileges, and verifying successful deployment.

By following this SOP, IT teams and DBAs can:

- Standardize the offline installation process for SSMS v21 across all systems.
- Ensure compliance with organizational security and change management policies.
- Avoid installation failures caused by missing dependencies or lack of internet connectivity.
- Maintain consistency across production, non-production, and isolated environments.

This procedure is designed for Windows 10 and above as well as Windows Server 2016 and later, and it applies to both workstation and server installations where SSMS is required.

The current **general availability (GA)** release of SQL Server Management Studio (SSMS) is **version 21**. This version is built on a Visual Studio-based solution and *includes features such as 64-bit support, Copilot in SSMS (Preview), and initial dark theme support. It is the recommended release for use with SQL Server 2025 Preview.*

As of **August 2025**, version **21.4.8** was noted as the most recent, and updates are delivered through the Visual Studio Installer.

The SSMS v21 installer is a bootstrap file, which means it is a lightweight setup that downloads the required components during installation. Therefore, network connectivity is required for downloading bootstrapper file and layout files during the installation process.

SOP Purpose

The purpose of this Standard Operating Procedure (SOP) is to provide a clear and standardized process for installing Microsoft SQL Server Management Studio (SSMS) version 21 using offline method. This ensures that all installations are performed consistently, securely, and in compliance with organizational IT standards. The SOP is intended to guide IT personnel, database administrators, and support teams in performing the installation with minimal errors and ensuring compatibility with enterprise SQL Server environments.

Scope
This SOP provides guidelines to install Microsoft SQL Server Management Studio (SSMS) version 21 on Windows-based systems across the organization. It applies to all IT personnel, database administrators, and support staff responsible for managing or accessing SQL Server environments. The procedure covers the download, installation, and initial launch of SSMS, ensuring uniformity and compliance with organizational standards. This SOP does not apply to: • Installation on non-Windows operating systems (e.g., Linux or macOS). • Installation of older or beta versions of SSMS. • SQL Server engine installation or configuration. • *Troubleshooting post-installation issues or advanced SSMS configurations.*

Potential Problems
This procedure addresses the following potential problems that may arise during or due to improper installation of Microsoft SQL Server Management Studio (SSMS) version 21: • **Incorrect Installation Steps** – Without a standardized guide, users may miss essential steps, leading to incomplete or faulty installations. • **Version Mismatch** – Installing an outdated or incorrect version can result in compatibility issues with SQL Server instances or unsupported features. • **Installation on Unsupported Platforms** – Attempting installation on non-Windows systems or unsupported configurations may lead to failure or instability. • **Security Vulnerabilities** – Downloading SSMS from unofficial sources increases the risk of introducing malware or compromised software into the environment. • **Permission and Access Errors** – Failure to run the installer with appropriate privileges may result in access restrictions or functionality limitations post-installation. • **Lack of Documentation for Troubleshooting** – Inconsistent or undocumented installation processes make it difficult to resolve issues or audit system changes. • **User Delays and Downtime** – Uncoordinated or failed installations can delay database access for users, impacting productivity and service availability.

Definitions		
Sr. No.	Term	Definition
1	SQL Server	A relational database management system (RDBMS) developed by Microsoft for storing, managing, and retrieving data as requested by other software applications.
2	SSMS	A Microsoft-provided integrated environment used to manage SQL Server infrastructure, including configuration, query execution, and database administration tasks.
3	Installer	The executable file used to initiate the installation process of the SSMS application on a system.
4	Windows Authentication	A method of connecting to SQL Server using the current user's Windows credentials, eliminating the need for separate login credentials.
5	System Requirements	The minimum hardware and software specifications required for successful installation and optimal performance of SSMS.
6	Administrator Privileges	Elevated system permissions required to install or modify software and system settings.

7	Official Source	Microsoft's verified website or distribution channel from which software is downloaded to ensure authenticity and security.

Roles & Responsibilities	
Roles	**Responsibilities**
IT Support Staff / System Administrator/ Windows Team	• Verify system prerequisites (Windows version, .NET Framework, disk space, permissions). • Download the approved SSMS installer from Microsoft's official site or internal repository. • Validate installer integrity (checksum/signature). • Execute the SSMS installation (GUI or silent mode) with administrative privileges. • Monitor installation logs and troubleshoot errors if they occur. • Perform cleanup of temporary installation files.
Database Administrator (DBA)	• Verify system requirements and prerequisites • Install SSMS using administrator privileges • Confirm successful installation and initial launch • Validate SSMS functionality post-installation • Test connectivity to SQL Server instances • Ensure compatibility with existing database systems • Confirm the business requirement for SSMS installation (new setup, upgrade, or reinstallation). • Provide technical guidance on SSMS version compatibility with SQL Server instances. • Backup and restore SSMS configurations if upgrading from an older version. • Perform post-installation validation by connecting to SQL Server instances. • Report any installation-related issues to IT support or vendor as needed.
Security / Compliance Team	• Review and approve installation as per IT policies • Confirm installer is from a trusted source • Ensure compliance with security standards
Change Manager / IT Compliance Officer (if applicable)	• Approve change requests for SSMS installation in line with ITIL/change management process. • Ensure installation activity complies with organizational policies, license agreements, and audit requirements. • Maintain records of installation in CMDB/asset management systems.
End User (Developer, Analyst, DBA using SSMS)	• Request SSMS installation via service request/change request. • Confirm successful installation by launching SSMS and validating required features. • Report any post-installation issues (connectivity, missing plugins, UI errors) to DBA/IT Support.

SSMS Version Details	
SSMS Major Version	21
Release Number	21.4.8
Release Date	8th July 2025

Procedure

Step 1: Pre-requisite Checks

This version of SSMS works with SQL Server 2014 (12.x) and later versions. It provides the most significant support for working with the latest cloud features in Azure SQL Database, Azure Synapse Analytics, and Microsoft Fabric. Additionally, SQL Server Management Studio 21 can be installed alongside SSMS 20.x, SSMS 19.x, SSMS 18.x, SSMS 17.x, and SSMS 16.x. For SQL Server Integration Services (SSIS), SSMS 17.x and later versions don't support connecting to the legacy SQL Server Integration Services service. Before installing SSMS v21, ensure the following:

- **OS**: **Windows 10 or later, Windows Server 2016 or later 64-bit operating systems Only**, Windows 11 minimum supported OS version or higher: Home, Pro, Pro Education, Pro for Workstations, Enterprise, and Education, Windows 10 minimum supported OS version or higher: Home, Professional, Education, and Enterprise, Windows Server 2025: Standard and Datacentre, Windows Server 2022: Standard and Datacentre, Windows Server 2019: Standard and Datacentre, Windows Server 2016: Standard and Datacentre.
- **Processor:** x64 processor; Quad-core or better recommended.
- **Memory:** Minimum of 4 GB of RAM. Many factors affect resources used; recommend 16-GB RAM for typical professional solutions.
- **Disk Space:** Hard disk space: Minimum of 4 GB up to 50 GB of available space, depending on features installed; typical installations require 20 to 50 GB of free space. We recommend installing Windows and SSMS on a solid-state drive (SSD) to increase performance.
- **Video Card:** Video card that supports a minimum display resolution of WXGA (1366 by 768); SSMS works best at a resolution of 1920 by 1080 or higher**.**
- **.NET Framework: .**NET Framework 4.7.2 or above is required to install SQL Server Management Studio 21. SQL Server Management Studio 21 requires .NET Framework 4.8 to run. If .NET Framework 4.8 isn't already installed, it's installed during setup**.**
- **Language:** SQL Server Management Studio 21 is available in English, Chinese (Simplified), Chinese (Traditional), Czech, French, German, Italian, Japanese, Korean, Polish, Portuguese (Brazil), Russian, Spanish, and Turkish. You can select the language of SSMS during installation. The Visual Studio Installer is available in the same 14 languages, and matches the language of Windows, if available.

For more info please visit: https://learn.microsoft.com/en-us/ssms/system-requirements

- Make sure that the user who performs the initial installation has **administrator** permissions on the machine.
- **Apply the latest Windows updates**. These updates ensure that your computer has both the latest security updates and the required system components for SSMS.
- **Restart**. Restarting ensures that any pending installs or updates don't hinder your SSMS install.
- Free up space. Remove unneeded files and applications from your system drive by, for example, running the Disk Cleanup application.
- **Network connectivity to download additional resources.**

You can install SQL Server Management Studio 21 side-by-side with other versions.

Step 2: Download the SSMS Installer

- Visit the official Microsoft SSMS download page: https://learn.microsoft.com/en-us/ssms/install/install

Note: Do not download SSMS from third-party websites to avoid malware or outdated versions.

- Click "Download SSMS 21" to download the latest version of the installer (vs_SSMS.exe). It will download the bootstrap file
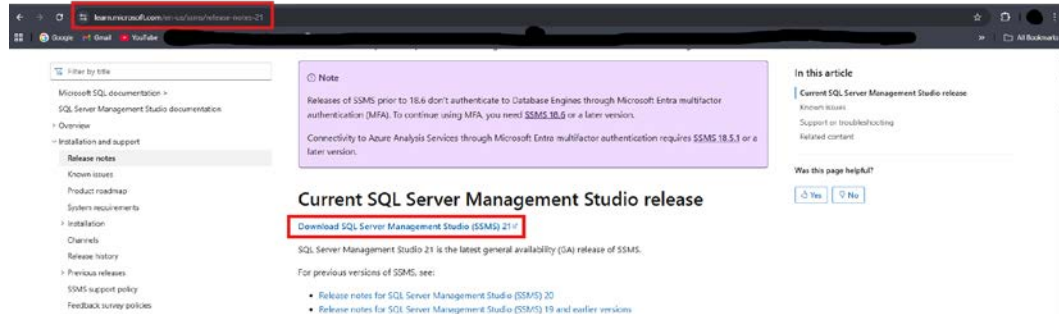
- Save the file in a secure location.

Download the correct bootstrapper for the version of SSMS you want, and copy it into the directory you want to use as the source location for your local layout. The bootstrapper is the executable you use to create, update, or modify your local layout. You must have an internet connection to complete this step.

Step 3 - Create a local layout

Open a command prompt with administrator privileges, navigate to the directory where you downloaded the bootstrapper, and use the bootstrapper's parameters to create your local layout. You must have an internet connection to complete this step.

You can install a language other than English by changing en-US to a locale from the list of language locales, and you can use the list of component IDs to further customize your local layout.

To create a complete local layout for SQL Server Management Studio, run:

- Create a folder where you will download offline installer using layout command.

- Copy the path of bootstrapper installer. On Bootstrapper file click Ctrl+Shift+C or right click -> copy as path
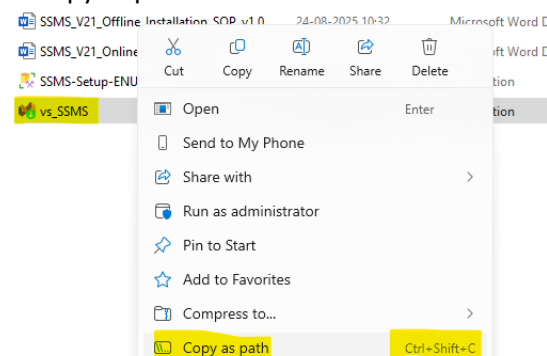
- Open CMD as administrator. In search button type CMD or Command Prompt. Then Right click -> Run as Administrator
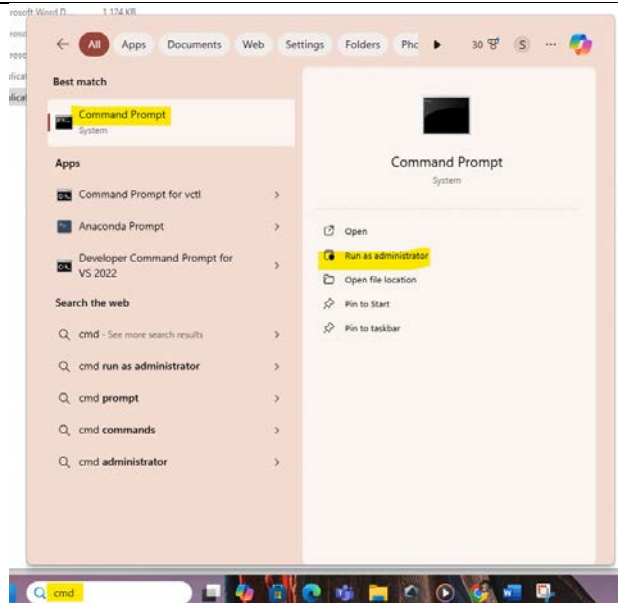
- In CMD Right click or ctrl+V Pate the copied path of bootstrapper file then hit space and write –layout and then paste the path of newly created folder where the offline installer will be downloaded. Then press enter.

  Command example - SSMS-Setup-ENU.exe /layout "D:\SSMS_21_Offline" /quiet
  --layout → specifies the target folder where all setup files will be downloaded.
  "D:\SSMS_21_Offline" → replace with your desired folder path.
  /quiet → runs silently without prompts.
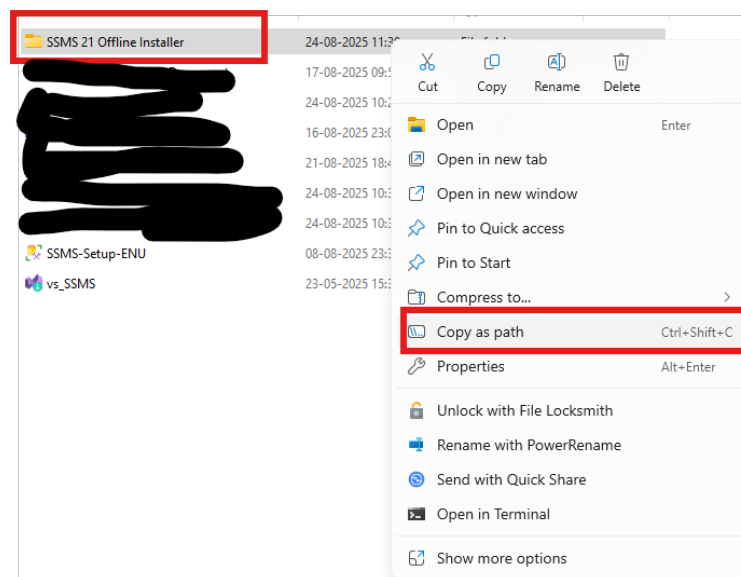
My CMD Command – Bootstrapper_File _Path –layout destination_Folder_Path
"D:\PROJECTS\SQL DBA\SQL SERVER DBA Query\DBA Code\SSMS\vs_SSMS.exe" --layout "D:\PROJECTS\SQL DBA\SQL SERVER DBA Query\DBA Code\SSMS\SSMS 21 Offline Installer"

- It will start downloading packages

- It will take 10-15 min to download depending upon your network speed. Once download completed please press any key to continue.
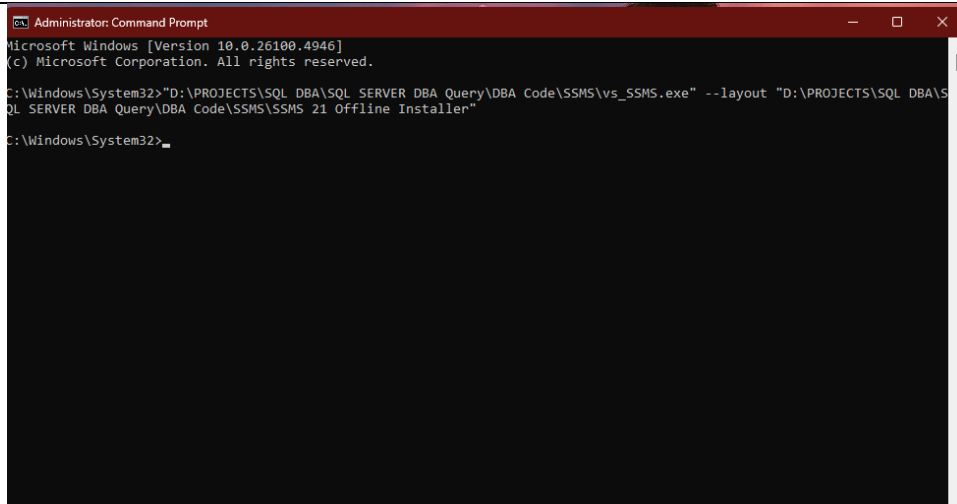
- After completion, the folder D:\PROJECTS\SQL DBA\SQL SERVER DBA Query\DBA Code\SSMS\SSMS 21 Offline Installer will contain the full offline installer, including dependencies. **After the bootstrapper has finished downloading the layout files, the local layout folder can be copied or moved to any other machine or environment you want to install SQL Server Management Studio on without requiring an internet connection.**
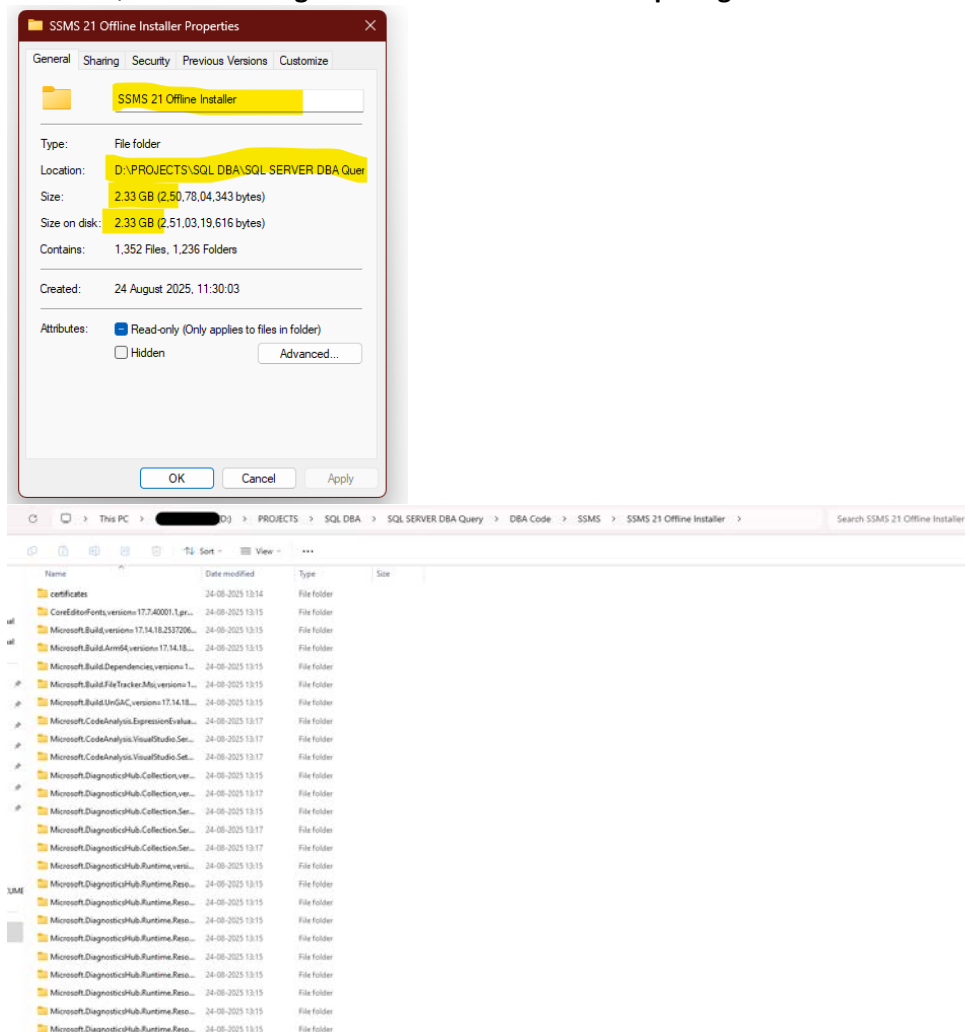
- Close CMD

Step 4 - Transfer Offline Package to Target Machine

- Copy the entire folder (SSMS 21 Offline Installer) to the system where SSMS needs to be installed.
- Use a secure method (USB drive, internal network share, etc.). As per permitted policy.
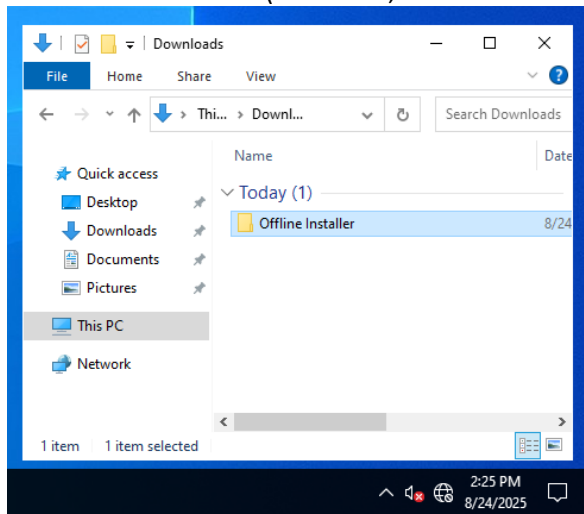
**Step 5 - Initiate the Offline installation**

When you install SSMS from a local layout, the Visual Studio Installer uses the local versions of the files. If you select components during installation that aren't in the layout, then the Visual Studio Installer attempts to download them from the internet. To make sure you install only the files you previously downloaded, use the same command-line options you used to create the local layout. To make sure your installer doesn't try to access the internet when it's installing the product, use the ==-====-noweb switch.==

For example, if you created a local installation layout using the command from step 2, then use the following command to run the installation and prevent the client machine from accessing the internet:
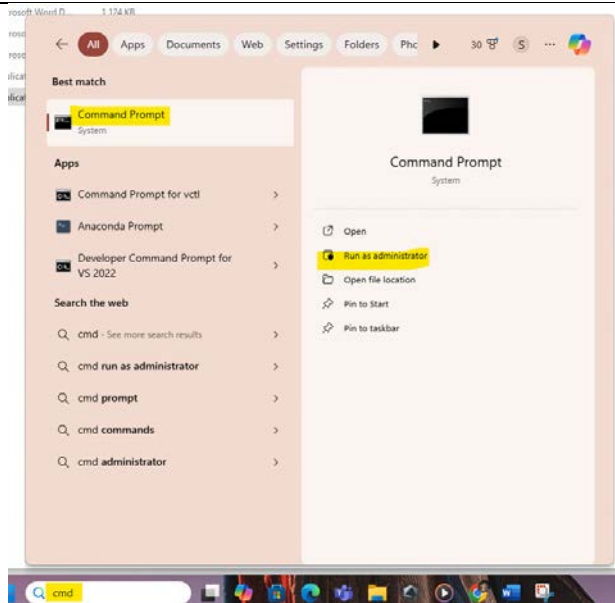
- Navigate to the offline Installer folder on target machine (e.g., C:\Users\Administrator\Downloads\Offline Installer).
- Scroll down to below until you find vs_Setup.exe file (C:\Users\administrator\Downloads\Offline Installer)
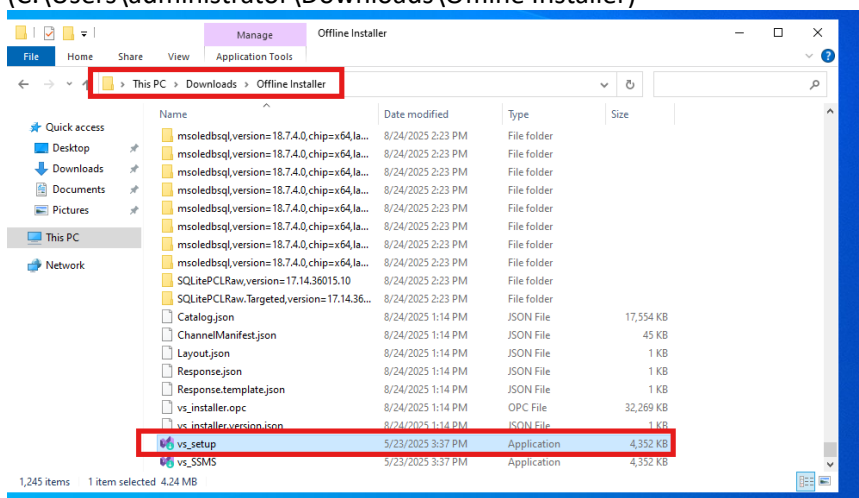
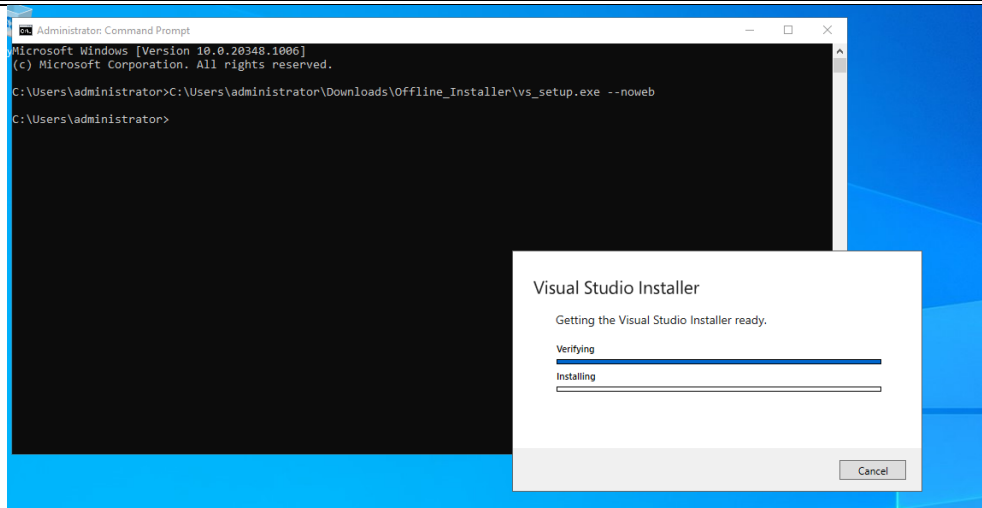- Right click on the exe file -> Properties -> Copy the path -> After coping location click close.
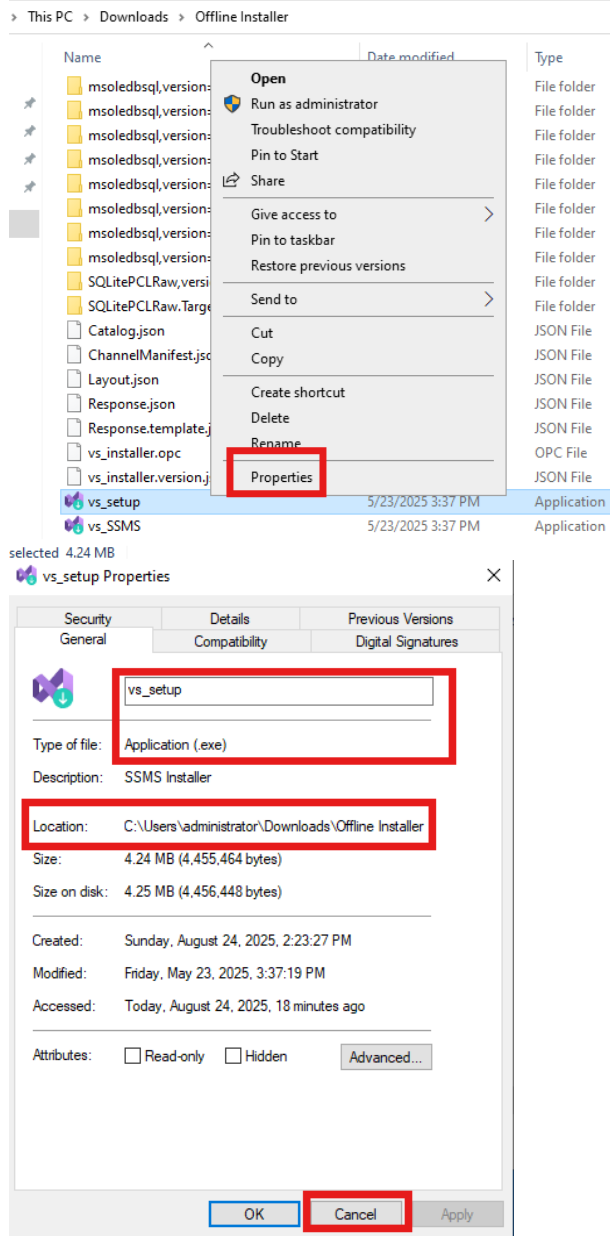
- Open CMD as administrator. In search button type CMD or Command Prompt. Then Right click -> Run as Administrator

In CMD Right click or ctrl+V Pate the copied path of vs_setup.exe file then hit space and write –noweb Then press enter.
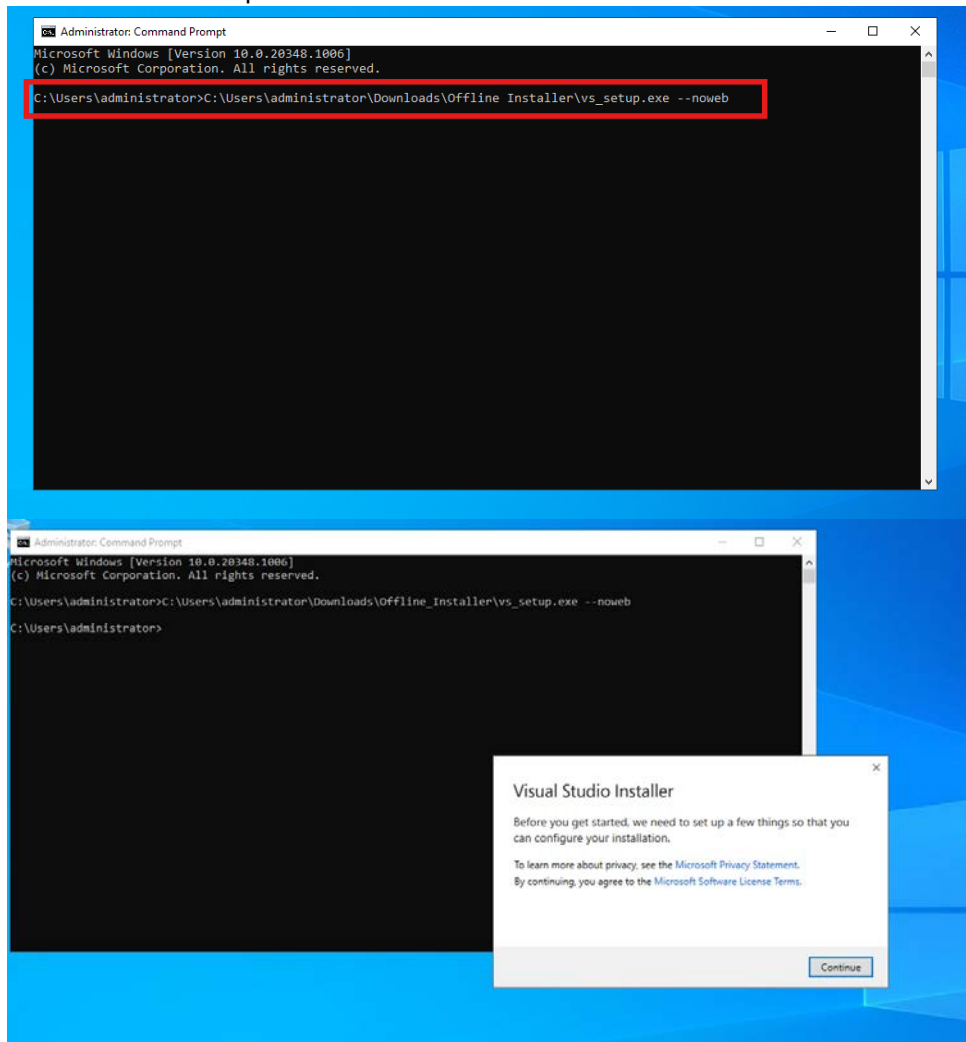
Click on continue

- It will start Installing and takes 20-30 min depending upon your machine specification.

Validate a certificate for offline installations

Installing SSMS on an offline machine can require a valid certificate. If you try to install SSMS on an offline machine using a layout, and the installer exits with no exception, it might be due to an invalid certificate. Go to the %TEMP% directory and open the most recent bootstrapper file named dd_bootstrapper_yyyyMMddHHmmss.log. The following messages indicate the installation is failing because of an invalid certificate:

Certificate is invalid: <YourSSMSFolder>\vs_installer.opc
Error: Unable to verify the certificate: InvalidCertificate
Error 0x80131509: Signature verification failed. Error: Unable to verify the integrity of the installation files: the certificate could not be verified.

To ensure the installation completes successfully, follow these steps:

1. On a machine with internet connection, download the Microsoft Windows Code Signing PCA 2024 certificate.
2. Move the .crt file to the offline machine.
3. From the offline machine, right-click the .crt file and select **Install Certificate**.
4. Select **Local Machine** as Store Location and then **Next**.
5. Keep **Automatically select the certificate store based on the type of certificate**, then select **Next**.
6. Select **Finish**.
7. You see the prompt, **The import was successful**.
8. Install SSMS using the local layout.
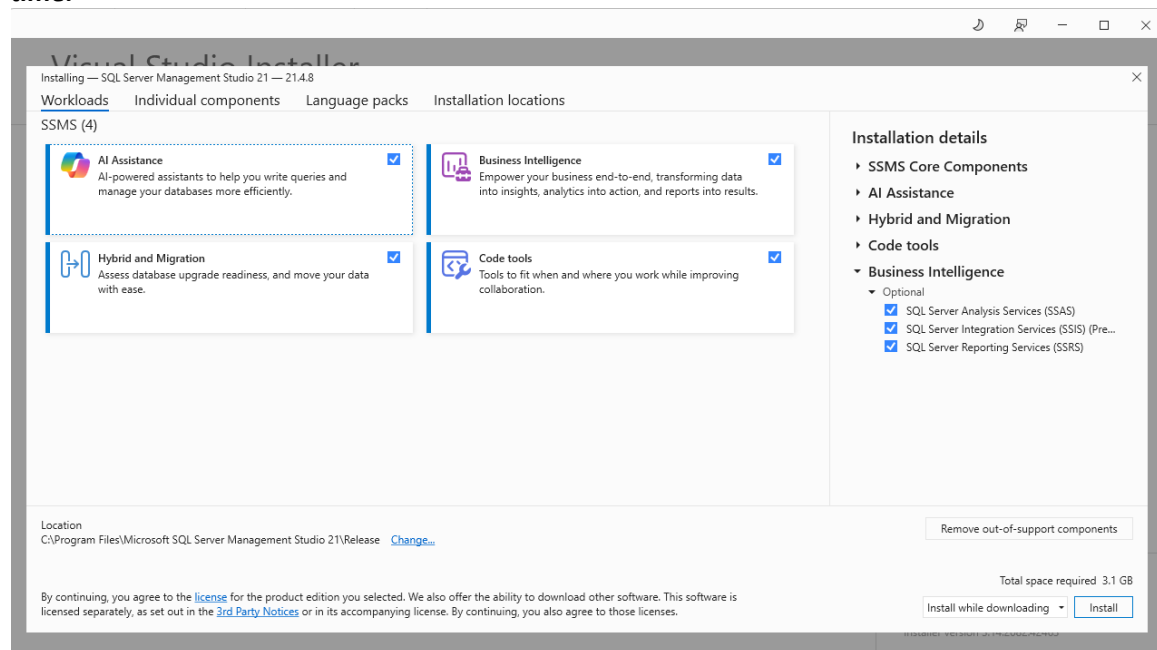
Step 6 - Choose workloads (optional)

After you install the Visual Studio Installer, you can use it to customize your installation SQL Server Management Studio by selecting different options on the tabs of the installer. During the installation of SQL Server Management Studio (SSMS) v21, the term "workload" refers to the set of components, tools, and features that can be optionally installed along with the core SSMS application. Here's how.

- Select the workload that you want in the Visual Studio Installer.
- Review the workload summaries to decide which workload supports the features you need. For example, choose the Hybrid and Migration workload to assess your upgrade readiness and migrate your data.
- After you choose the workloads that you want, select Install. Status screens appear that show the progress of your SSMS installation.
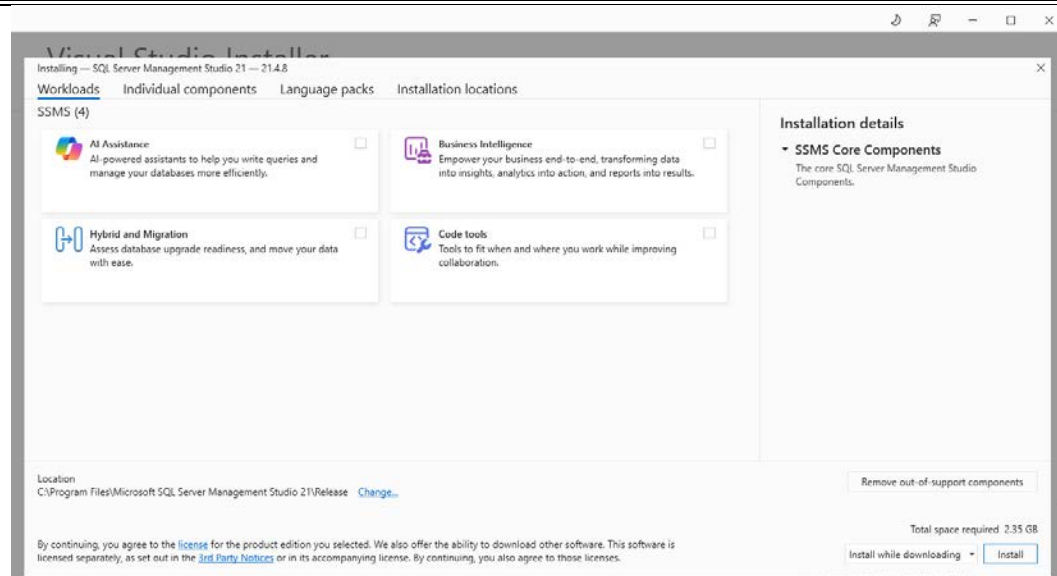
Depending on the selected workload(s), the required disk space for installation will vary.

For testing purposes, I selected all available workloads, which requires more disk space. You may choose only the workloads relevant to your role or project to save storage and reduce installation time.


Step 7 - Choose individual components (optional)
If you don't want to use the workloads feature to customize your SSMS installation, or you want to add more components, you can install or add individual components from the Individual components tab. Choose the components that you want, and then follow the prompts.
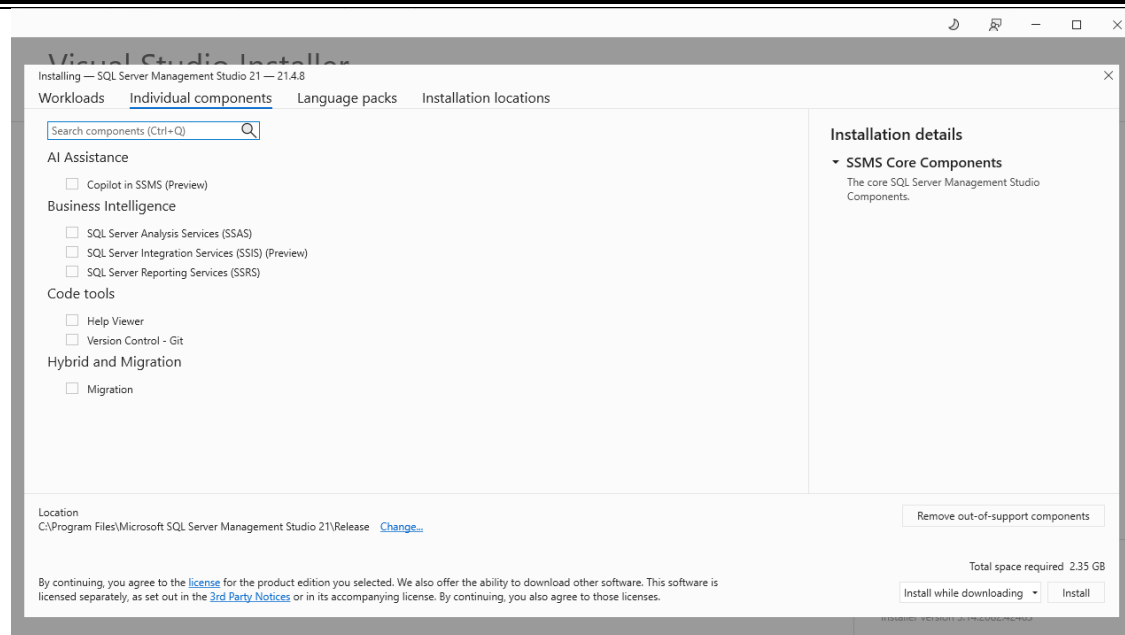
As per your workload selection, individual components will be automatically selected.
Alternatively, you can manually customize the installation by selecting or deselecting specific components as needed.
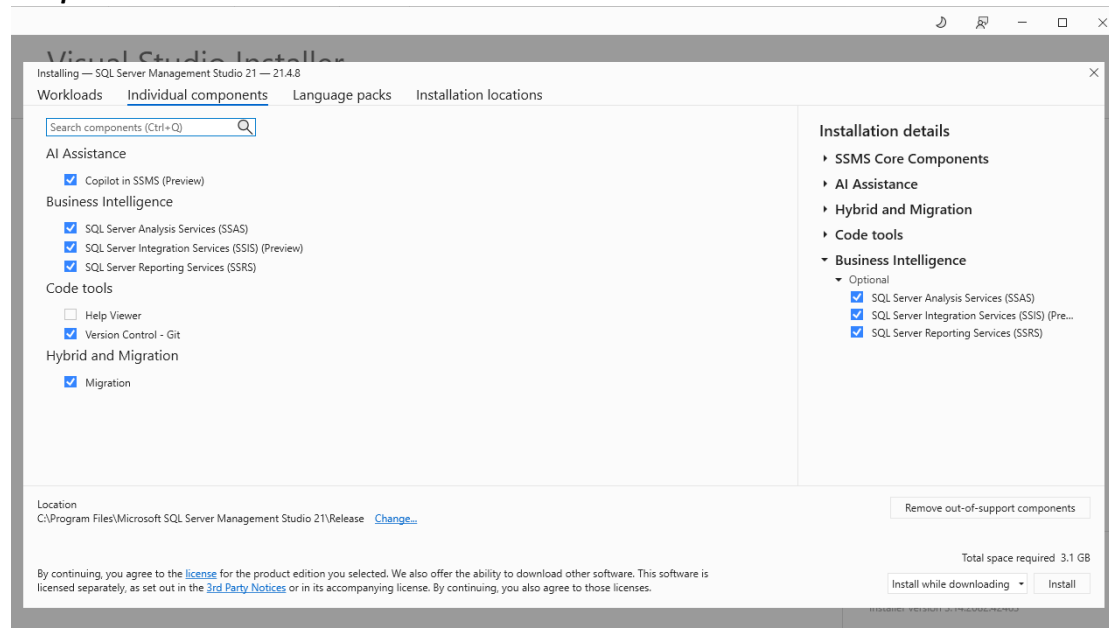
Step 8 - Install language packs (optional)

By default, the installer program tries to match the language of the operating system when it runs for the first time. To install SSMS in a language of your choosing, choose the Language packs tab from the Visual Studio Installer, and then follow the prompts.
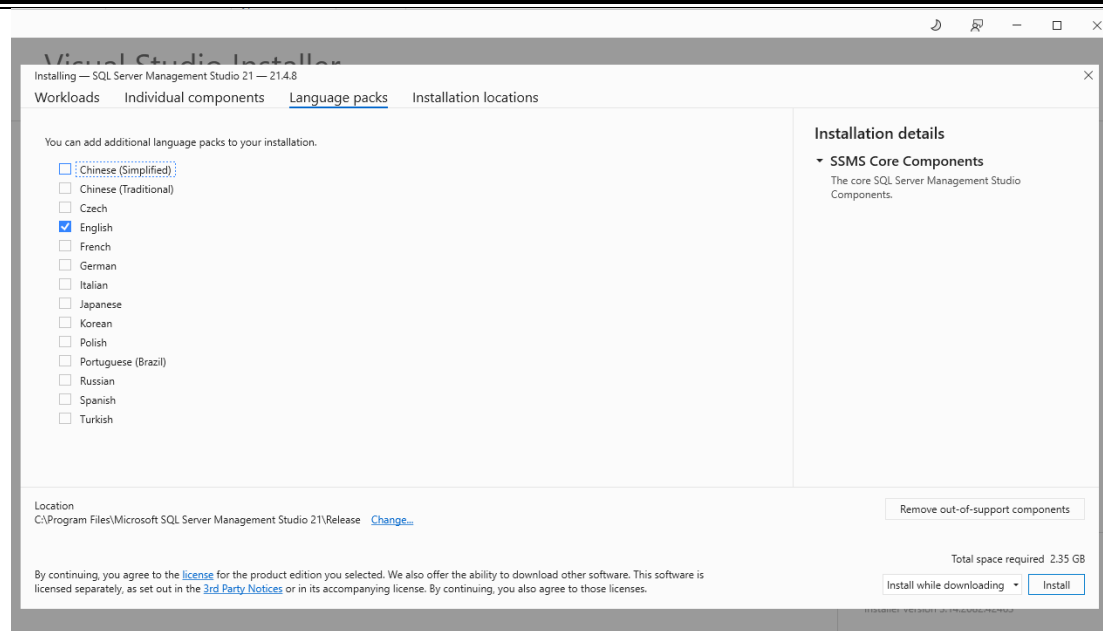
Step 9 - Select the installation location (optional)
You can reduce the installation footprint of SSMS on your system drive. You can select a different drive for SQL Server Management Studio or Download cache only when you first install SSMS. If you already installed it and want to change drives (default is recommended), you must uninstall SSMS and then reinstall it.
If SSMS or Visual Studio is already installed on your computer, you can't change the Shared components, tools, and SDKs path. It appears greyed out. This location is shared by all installations of SSMS and Visual Studio.

Step 10 - Click "Install" to begin the installation process.
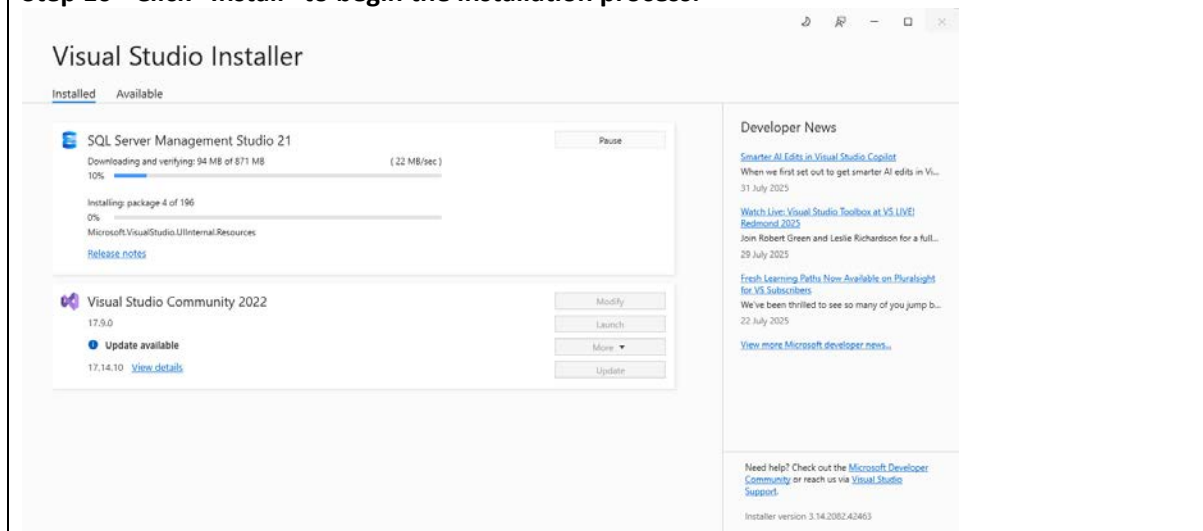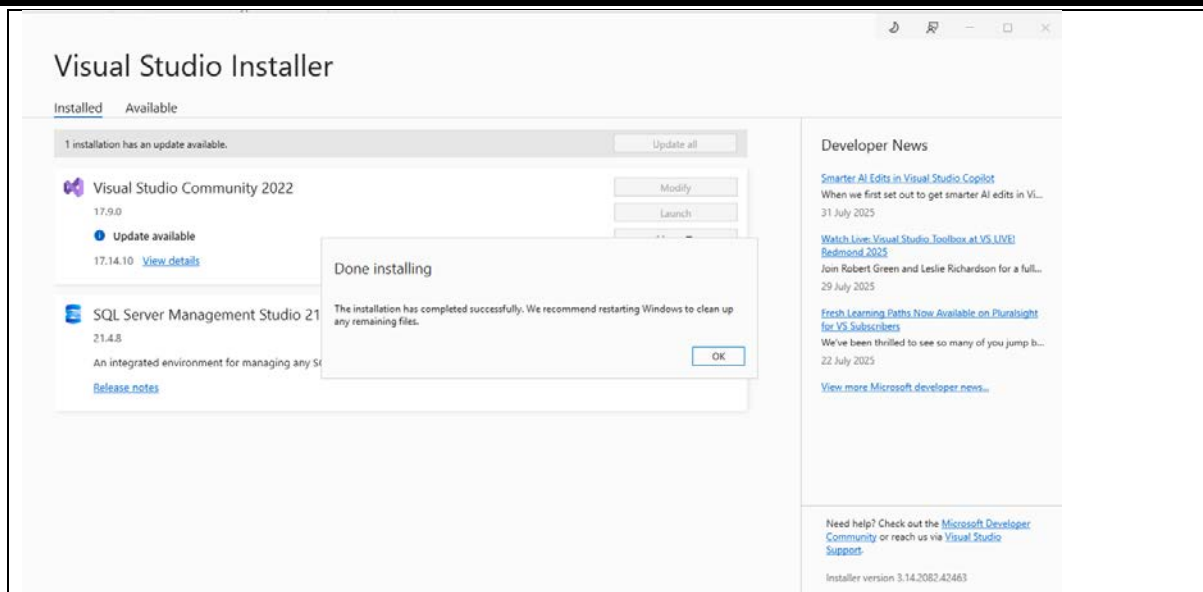
Step 11 - Visual Studio Integration (Optional)

Based on your requirement, you may choose to install or update Visual Studio if you're using SSMS alongside SQL Server Data Tools (SSDT) or other integrated development tasks. In my case, I updated Visual Studio to the latest version to ensure full compatibility with SSMS and related SQL development features. This step is optional and should be performed only if Visual Studio integration is needed for your workflow.
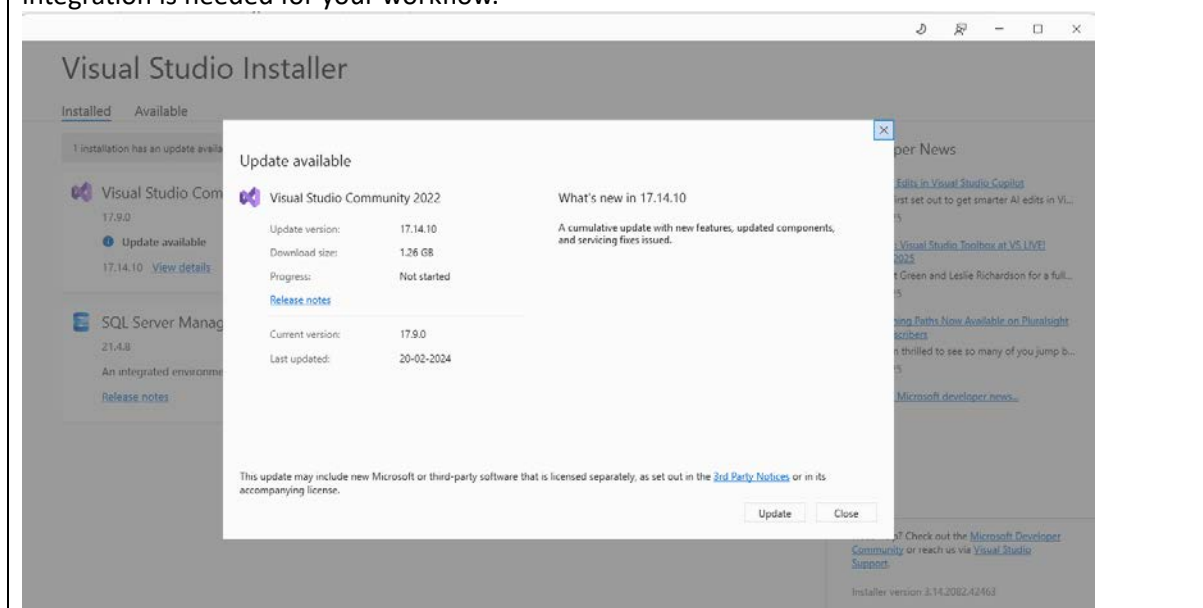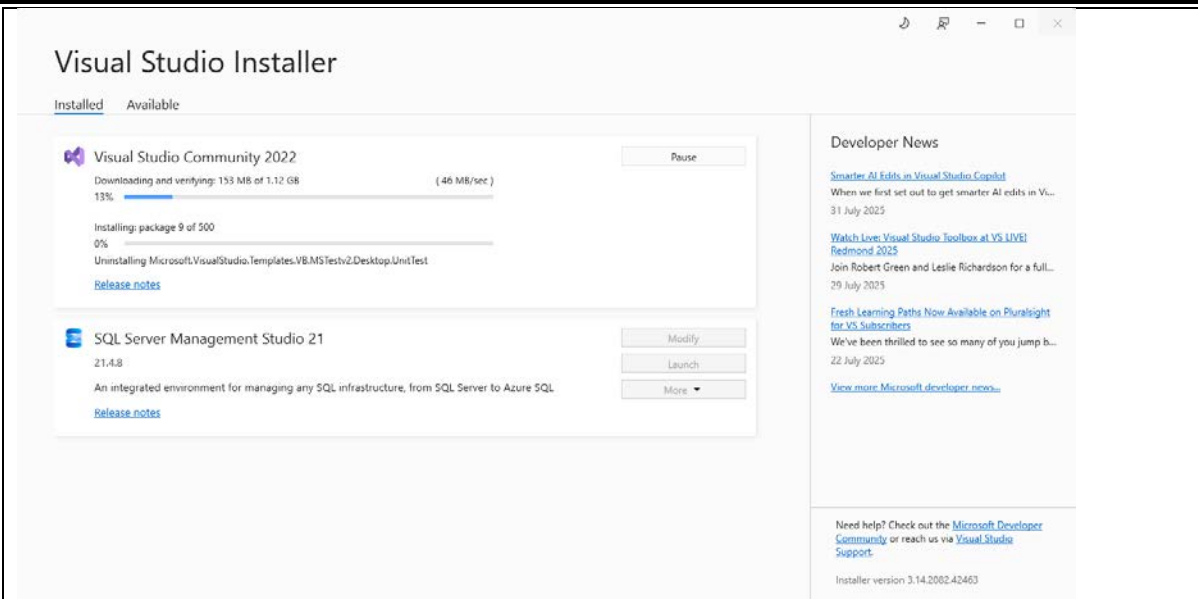
Post-Installation Options

After the successful installation of SSMS v21, the setup wizard provides the following options:

- Launch – Start SQL Server Management Studio immediately.
- Modify – Change the installed components or workloads.
- More – Access options like Uninstall, Repair, or Change Configuration.
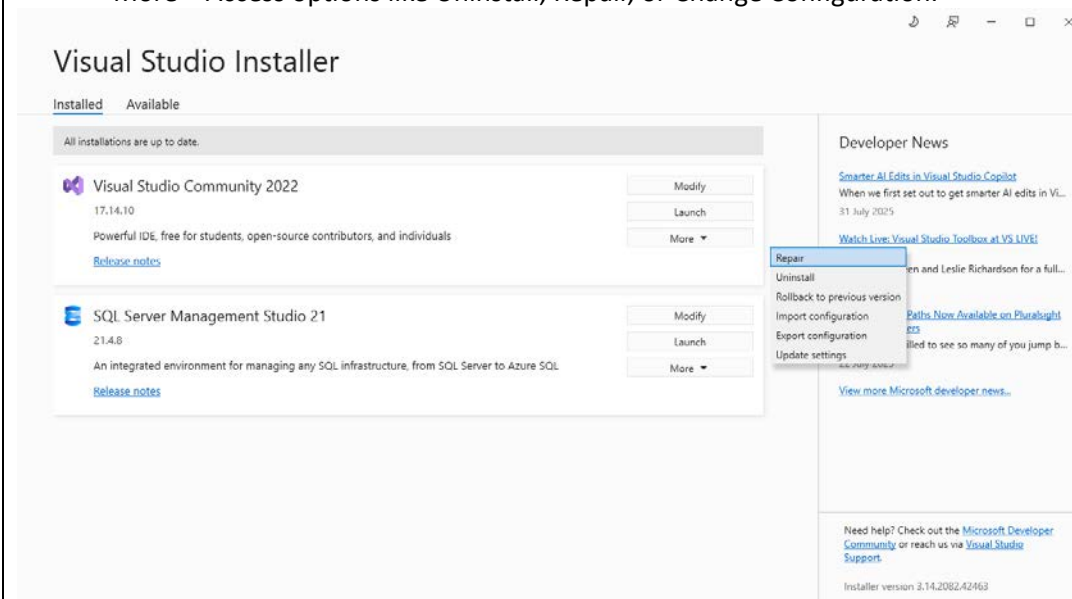
Step 12 - Sign in to your account (optional) – Not possible, You can skip this step

While you don't have to sign in, there are many advantages to doing so, such as synchronizing your settings across devices.
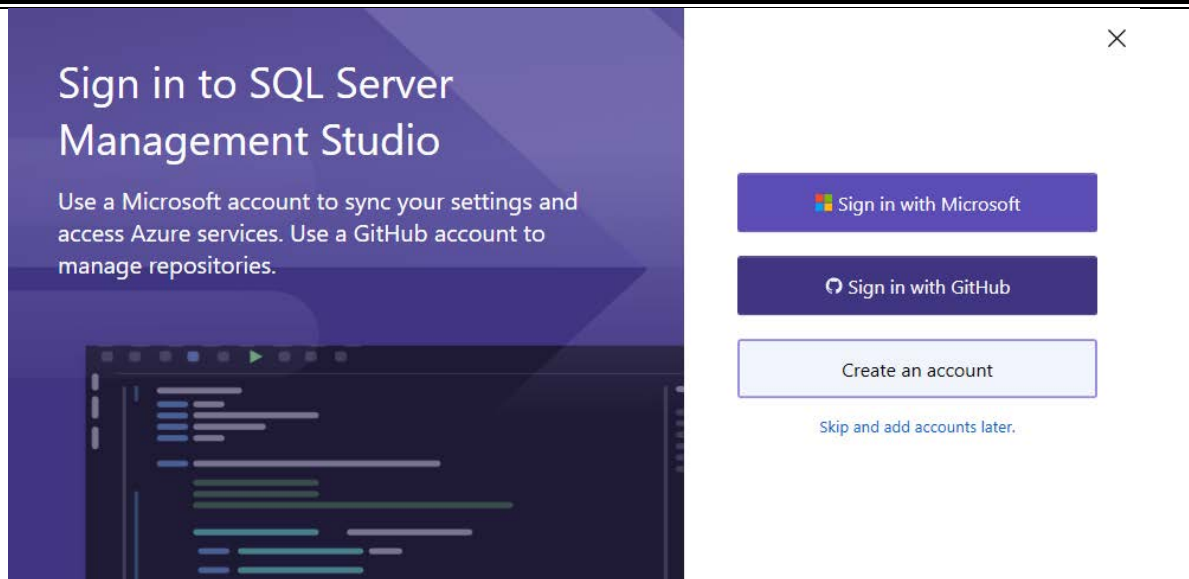
Step 13 – Launch SSMS

After installation is complete, click the "Launch" button from the installer, or: **Go to Start Menu** →
Search for "**SQL Server Management Studio**" and **open** the application.
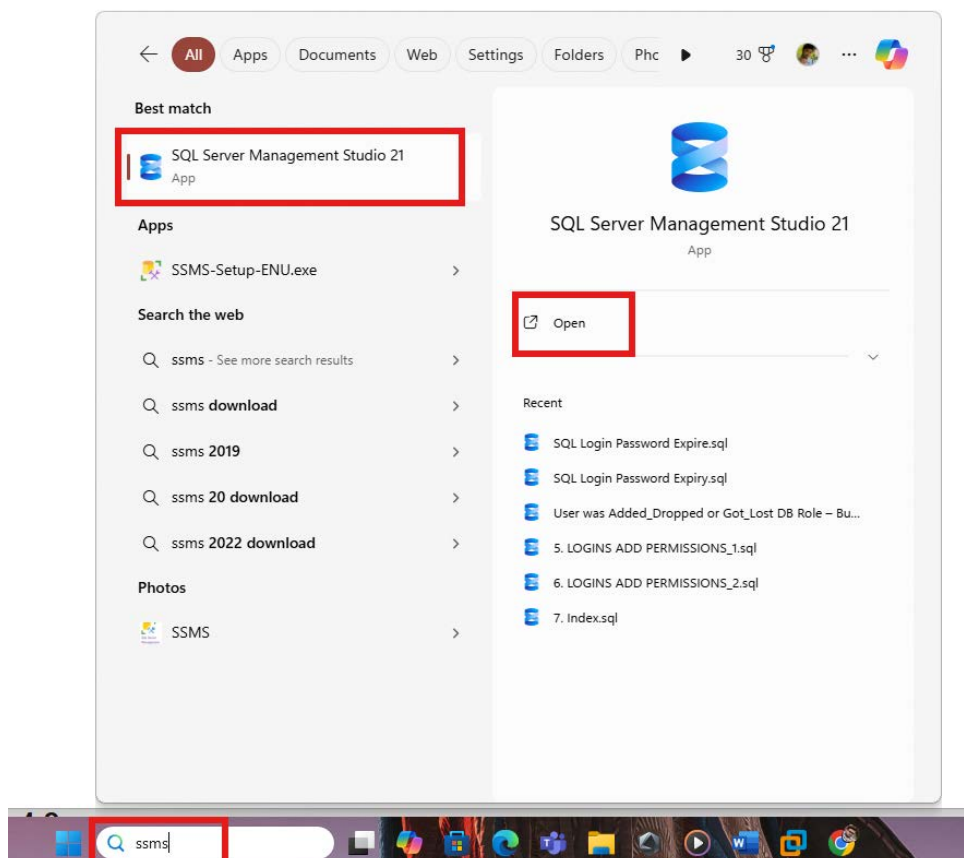
- You can choose to sign in with either a Microsoft account or a GitHub account.
- If you do not have an account, click the "Create one" link to register a new account.
- For my setup, I used my GitHub account to sign in and sync preferences across devices.

Note:

Signing in is optional, but recommended if you use features like Azure Data Studio integration, Azure
SQL services, or want to sync your environment settings.
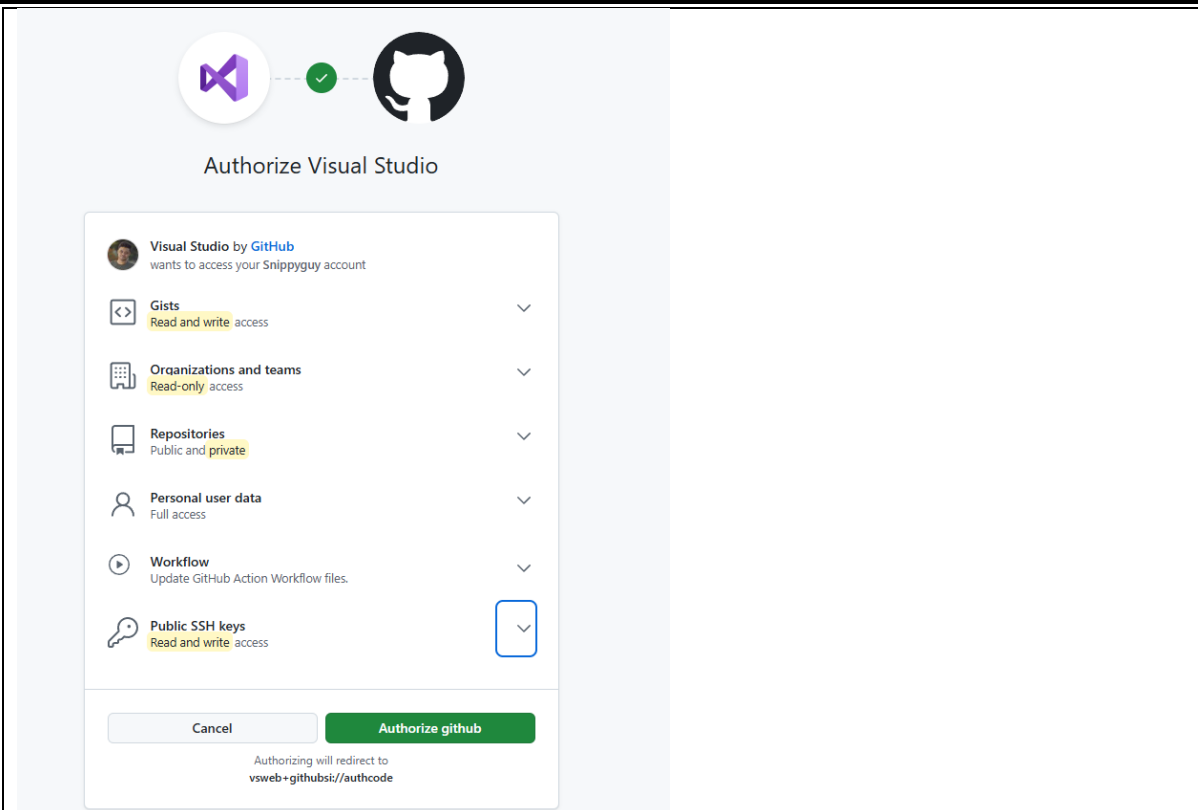
On first launch:

Wait for the splash screen to load.
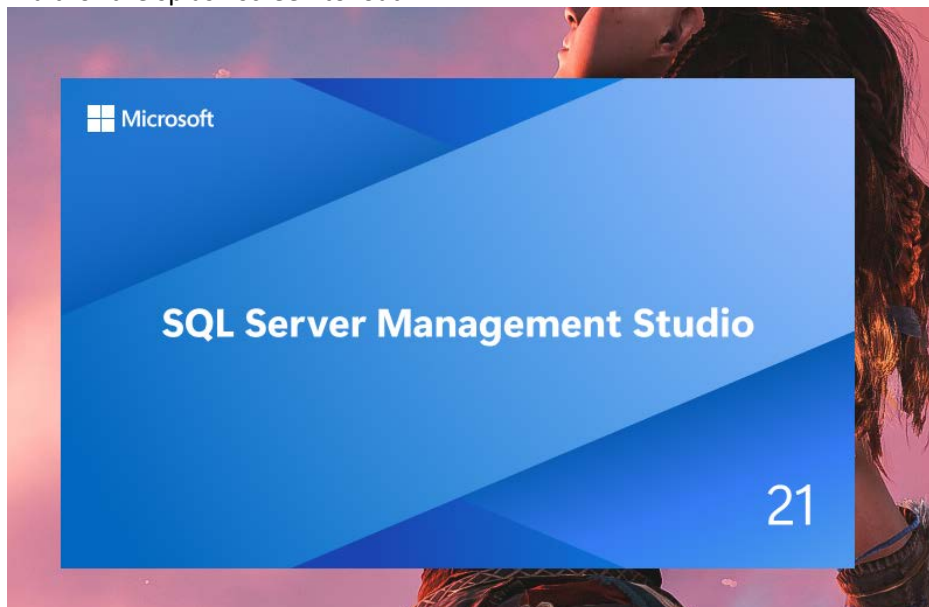
Confirm that SSMS opens without any errors.

You may be prompted to import settings from a previous version of SSMS (if available). Choose to import, skip, or start with default settings based on your preference.
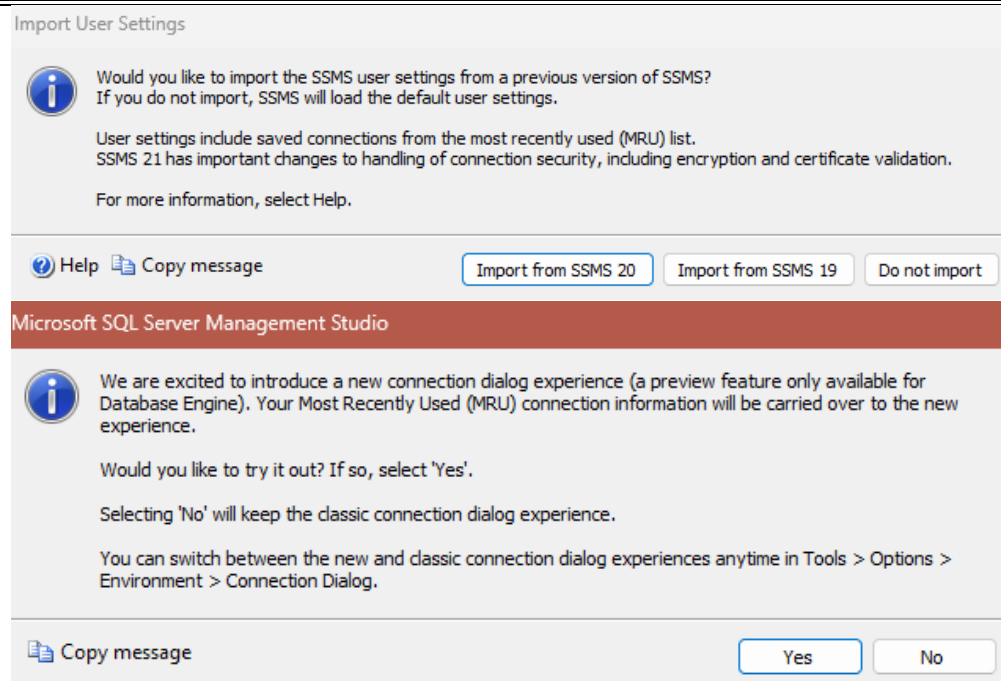
Wait for the application to initialize.

Verify the version by navigating to Help → About (should display v21.x.x).
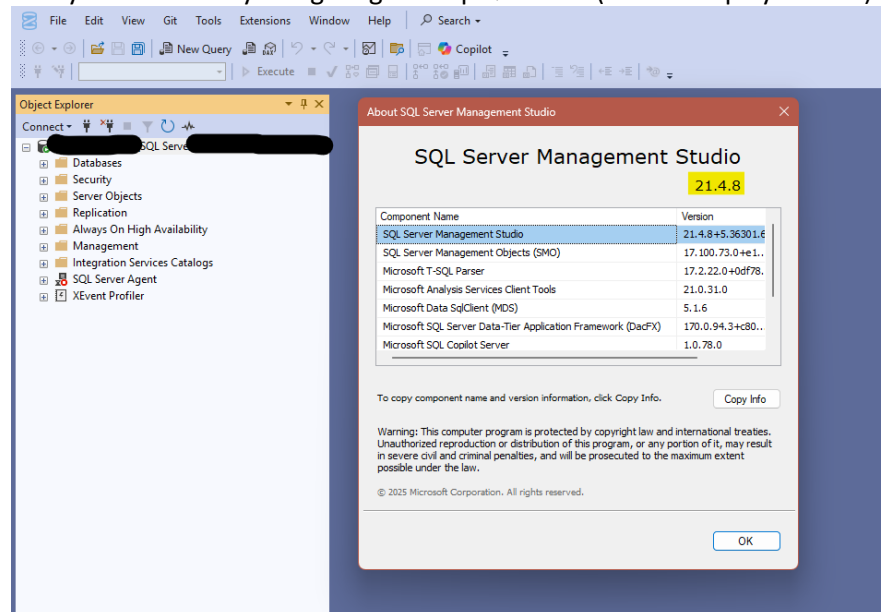
On the Connect to Server window:

Enter the SQL Server instance name.

Choose an appropriate Authentication method (Windows or SQL Server Authentication).

Click Connect to verify a successful connection.
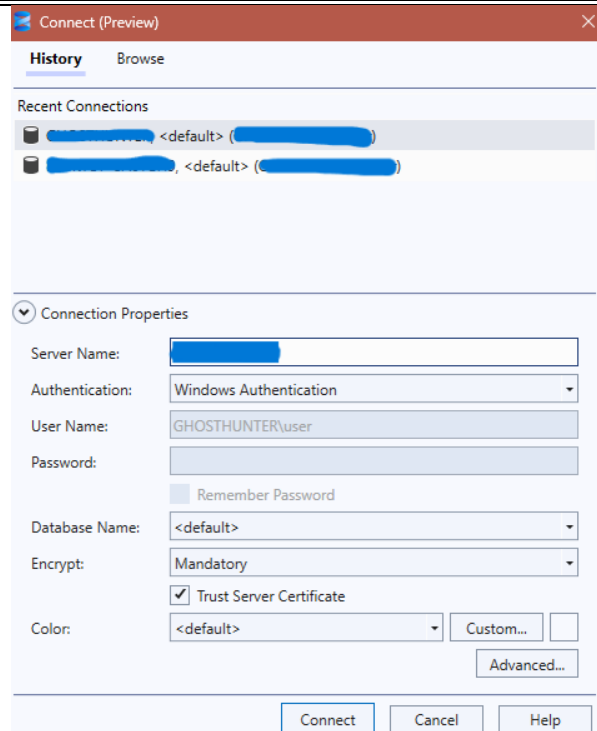
Step 14: Post-Installation (Optional)
- Pin SSMS to the taskbar for quick access.
- Configure default settings (fonts, colors, database connection defaults).
- Test connection to a SQL Server instance to confirm functionality.

Troubleshooting

Issue	Resolution

Installer fails to start: Re-download the installer and ensure admin privileges.
SSMS does not launch after install: Reboot the system and check Windows Event Viewer for errors.
.NET Framework error: Update to the latest .NET Framework version from Microsoft.
SSMS version mismatch: Verify installer file version before installing.

Use the "Download all, then install" feature

Sometimes online access is problematic. For example, you might have an unreliable internet connection or your internet connection might have low bandwidth. For situations like these, you can use the Download all, then install feature from the Visual Studio Installer to download an installation package on the local machine before you install it locally. Alternatively, you can use the command line to create a local installation package to install locally later.

After you download the bootstrapper, run it to install SSMS. It first installs and then launches the latest version of the Visual Studio Installer. Within the Visual Studio Installer, customize your installation of SSMS by selecting the workloads or components you want to install, as well as the installation location and language packs.

Once you have completed your selection, select the Download all, then install option in the dropdown list next to the Install button of the Visual Studio Installer. Selecting this option will download the SSMS packages needed for installation on the local machine. By downloading the packages locally first, you can then safely disconnect from the internet before you install SSMS.

Process Steps		
Sr No.	Task	Owner
1	Raise/approve change request (if required)	Change Manager
2	Take snapshot backup (optional)	Windows Team
3	Pre-requisite checks	Windows team / DBA Team
4	Download Installer from official website	Windows team / DBA Team
5	Copy the installer to the respective location/server	Windows team / DBA Team
6	Backup existing SSMS configurations (if upgrading)	DBA Team
7	Provide administrative access (if required)	Windows team
8	Start Installation	DBA Team
9	Monitor installation process	DBA Team
10	Post check after Installation/ Verify successful installation	DBA Team
11	Validate connectivity to SQL Server instances	DBA Team
12	Clean up installation files	Windows team / DBA Team
13	Update documentation & CMDB/asset records	Change Manager
14	Verify Installer & process	Infosec Team

Bug Fixes in V21.4.8	
Feature	**Details**
Always Encrypted	Fixed several issues including an issue in the Create a New Column Master Key wizard where **Sort by Create Date** was incorrectly sorting by String, an issue that prevented Always Encrypted set up to be completed when using SSMS with Russian localization, and an issue in the Create a New Column Master Key wizard that improperly sized the subscription and tenant dropdown boxes.
Central Management Servers (CMS)	Addressed a bug that didn't add the server connection information to the recently used connections in the Connection Dialog.
Copilot in SSMS (Preview)	Improved initial chat experience if Microsoft Entra authentication to Azure OpenAI doesn't occur.
Copilot in SSMS (Preview)	Fixed issue where the current context entry was not updating if a tab was renamed.
Connection Dialog	Fixed a bug that caused the Modern connection dialog (Preview) to clear its recent and pinned connections when multiple instances of SSMS were open. See Connections dialog forgets connections.
Migration Assistant	Fixed an error in the Migration Assistant Assessment Wizard that caused UI elements to incorrectly display when the display resolution was set to 250%.
Query Data Store (QDS)	Addressed an issue where **Overall Resource Consumption** was incorrectly aggregating data when the display time was set to **Local**. See QDS - Overall Resource Consumption graphs return incorrect information when choosing "Time format: Local" with aggregation per day.
Results Window	Addressed an issue where scrolling multiple datasets in the results grid didn't behave as expected. See SSMS 21.0 - scrolling issue in results window.
Scripting	Resolved the error given key was not present in the dictionary when running queries or scripting a table as select. See SSMS 21 Preview .NET Framework error - the given key was not present in the dictionary.

View Designer	Fixed an issue that generated an error message when using CONVERT or CAST with several data types. See [SSMS returns error on valid query in view designer]().

What's New in V21.4.8	
Feature	**Details**
Central Management Servers (CMS)	Updated the Central Management Servers registration dialog and removed unnecessary fields.
Copilot in SSMS (Preview)	Implemented automatic synchronization to the active query editor for the chat window using the **Sync Active Editor** option.
Files	Updated the default location for File Save to %USERPROFILE%\Documents\SQL Server Management Studio 21. See [File Open and File Save are using a different location to SSMS 20]().
IntelliSense	Added support for Query Store secondary replicas syntax FOR SECONDARY SET and OPERATION_MODE.
Query Data Store (QDS)	Added seconds and milliseconds to the data picker for Overall Resource Consumption: [SSMS - Query Store graphs configure options adding seconds and milliseconds to defined time interval]().
Visual Studio	Updated to Visual Studio 17.14.8.

Known Issues		
Feature	**Details**	**Workaround**
Arm64	SSMS isn't currently supported on Arm64.	Run SSMS on a device that isn't Arm64.
Designers	The JSON data type isn't available for columns when creating or editing a table in Table Designer. See [SSMS 21.0 Preview 2.0 - Table Designer missing the "json" datatype]().	Use T-SQL to add columns with the JSON data type, this functionality is planned for a later release.
Designers	Unable to use SSMS after closing the **New View** pane when the **Add Table** dialog is left open. See [SSMS 21 Preview 1: New View window "Add Table" not aware I closed out of New View]().	Close the **Add Table** dialog before closing the view pane.
Extended Events	The Specify Data Storage page is truncated in the Extended Events Wizard. See [Extended Events Wizard is cut off on Specify Data Storage page]().	Use the **New Session...** option to create an Extended Events session.
Intellisense	Intellisense connection doesn't update after executing USE DATABASE command in the editor and then deleting the command. See [SSMS 21: IntelliSense think the current database is another one]().	Leave the USE DATABASE command in the editor, or use the database dropdown list to change database context.

Logins	Unable to map a credential for a login. See SSMS v21 Preview 1 - Bug in Login Properties for Credentials.	Use T-SQL to map a login to a credential.
Menu	Opening a folder from **File** > **Recent Projects and Solutions** generates one of the following errors: "System.InvalidOperationException: Can't enqueue project dependencies calculation before starting solution load" or "An exception of type NullReferenceException has been encountered." if opening the folder also opens one or more files that were open in the editor when the folder was last closed.	Closing the error allows work to continue. Alternatively, close all files in the editor before closing a folder.
Modern Connection Dialog (Preview)	Trying to change the password for a newly created SQL login with the MUST_CHANGE property enabled generates the error "Login failed for user. Reason: The password of the account must be changed. (Microsoft SQL Server, Error: 18488)". See Instead of Change password dialog an error pops up.	Use the Classic connection dialog to change the password.
Modern Connection Dialog (Preview)	Importing connection history for the new connection dialog generates the error "An error occurred while importing the connection history from the classic connection dialog. The given key was not present in the dictionary."	The error occurs when there are corrupted connections in your history, and they aren't imported into the new dialog. The error can be safely ignored.
Modern Connection Dialog (Preview)	Upon first use, when importing saved connections to the Modern connection dialog (Preview), saved passwords are lost.	Manually enter your passwords to save them to your connection profiles in the Modern connection dialog (Preview).
Offline installation	Installing an offline instance of SQL Server Management Studio 21 silently fails, with a "certificate is invalid" error message in the installation log.	Download and install the Microsoft Windows Code Signing PCA 2024 certificate. For more information, see Create an offline installation of SQL Server Management Studio.
Options	Enabling Per Monitor Awareness (PMA) by checking **Optimize rendering for screens with different pixel densities (requires restart)** within **Tools** > **Options** can cause issues with dialogs not rendering.	Don't enable **Optimize rendering for screens with different pixel densities (requires restart)** within **Tools** > **Options**.

Options	Enabling **Unified Settings Experience (requires restart)** within **Tools** > **Options** > **General** > **Preview Features** can cause issues with dialogs not rendering.	Don't enable **Unified Settings Experience (requires restart)** within **Tools** > **Options** > **General** > **Preview Features**.
Options	Changing the default value for options within **Tools** > **Options** > **General** > **Preview Features** can cause unpredictable behavior, both in terms of visual display and functionality.	Don't change the default value for any option within **Tools** > **Options** > **General** > **Preview Features**.
Query Store	When you use any of the Query Store reports, the Replica dropdown list menu option might not populate with the correct replica name when the Query Store for readable secondaries is enabled.	Use Transact-SQL to query the Query Store data for a readable secondary where the replica_group_id for a secondary can be mapped using the sys.query_store_runtime_stats system catalog view, which has a foreign key relationship with the sys.query_store_replicas system catalog view.
Results Pane	When switching themes, if the output is set to Results to Text, the Results pane doesn't switch themes. The original theme is still applied.	To apply any theme changes to the Results pane, restart SSMS.
SQL Server Analysis Services (SSAS)	When connected to a MultiDimensional DW with Analysis Services, right-clicking on a cube and selecting **Browse** generates the error 'Object reference not set to an instance of an object.'. See SSMS 21 Error browsing OLAP cubes.	Use an earlier version of SSMS to browse a cube.
SQL Server Integration Services (SSIS)	Support for legacy Integration Services service isn't available for SQL Server 2022.	To manage the legacy Integration Services Service for SQL Server 2022, use SSMS 20.2.1 or SSMS 19.3.

FORMS/TEMPLATES TO BE USED

Internal References

External References
Release Note: https://learn.microsoft.com/en-us/ssms/release-notes-20

Support Policy: https://learn.microsoft.com/en-us/ssms/support-policy
Installation Link: https://learn.microsoft.com/en-us/ssms/install/install
Offline Installation Guide: https://learn.microsoft.com/en-us/ssms/install/create-offline

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Snippyguy is a purpose-led transformation partner to many of the world's largest businesses. For more than years, it has been collaborating with clients and communities to build a greater future through innovation and collective knowledge. Snippyguy offers an integrated portfolio of cognitive powered business, technology, and engineering services and solutions. The company's consultants in various countries help empower individuals, enterprises, and societies to build on vision and innovation.

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