

STANDARD OPERATING PROCEDURE

Installation of Microsoft SQL Server 2022 Developer Edition with SQL Server Management Studio

Document ID	SOP-DBA-SQL-001
Version	1.0
Effective Date	23 August 2026
Classification	Internal – Confidential
Owner / Author	Database Administration / Platform Engineering
Review Cycle	Annual or upon major product release
Approved By	_____

This document provides a controlled, enterprise-grade procedure for installing Microsoft SQL Server 2022 Developer Edition and the accompanying SQL Server Management Studio on Windows workstations and servers for development, test, and non-production environments.

1. Purpose

The purpose of this Standard Operating Procedure (SOP) is to define a consistent, secure, and repeatable method for installing Microsoft SQL Server 2022 Developer Edition together with SQL Server Management Studio (SSMS) on approved Windows platforms. Adherence to this procedure ensures compliance with licensing terms, security baselines, and operational standards.

2. Scope

This SOP applies to all installations of SQL Server 2022 Developer Edition and SSMS performed by IT staff, developers, DBAs, and contractors on company-managed or approved personal development machines.

In Scope:

- Windows 10/11 (version 1607+) and Windows Server 2016/2019/2022/2025
- SQL Server 2022 Developer Edition (free, non-production license)
- SQL Server Management Studio 22 (current recommended version)
- Standalone (non-clustered) default or named instances

Out of Scope:

- Production use of Developer Edition (strictly prohibited by Microsoft EULA)
- SQL Server Express, Standard, or Enterprise licensed installations
- Always On Availability Groups, Failover Clusters, or PolyBase scale-out
- Linux or container-based deployments (covered by separate SOPs)

3. Definitions & Abbreviations

Term	Definition
SSMS	SQL Server Management Studio – graphical management tool
Developer Edition	Full-featured free edition of SQL Server licensed solely for development and test (non-production)
Default Instance	Instance named MSSQLSERVER; connects using machine name or localhost
Named Instance	Instance with a custom name; connects using machine\instancename
sa	System Administrator login used with SQL Server Authentication
CU	Cumulative Update – recommended post-install patch

4. Prerequisites & System Requirements

4.1 Hardware Minimums (SQL Server 2022)

Component	Minimum	Recommended
Processor	x64 1.4 GHz	x64 2.0 GHz or higher
Memory (RAM)	1 GB	4 GB or more
Disk Space	6 GB free	20 GB+ (plus data growth)

Display	Super VGA 800×600	1280×1024 or higher
---------	-------------------	---------------------

4.2 Software Requirements

- Operating System: Windows 10 (1607+), Windows 11, Windows Server 2016 or later
- .NET Framework 4.7.2 (included with modern Windows; install if missing)
- Administrator rights on the target machine
- Internet connectivity for download (or pre-staged media)
- No pending Windows restarts (especially on Windows Server 2022+)

4.3 Pre-Installation Checklist

- ☐ Verify target machine meets hardware/software requirements
- ☐ Confirm installation is for non-production use only
- ☐ Close all applications and ensure no pending reboots
- ☐ Temporarily disable real-time antivirus if it interferes with setup (re-enable after)
- ☐ Have a strong password ready for the sa account (if Mixed Mode selected)
- ☐ Decide default vs named instance and data directory layout

5. Roles and Responsibilities

Role	Responsibility
Requester / Developer	Request installation; ensure non-production use; provide justification if required
Installer (DBA / Desktop Eng.)	Execute this SOP; configure instance per standards; document completion
Platform / Security Team	Approve elevated rights if needed; review baseline compliance
Document Owner	Maintain this SOP; update for new versions or policy changes

6. Procedure – Download SQL Server 2022 Developer Edition

Step 6.1 – Obtain the Installer

1. Open a browser and navigate to the official Microsoft SQL Server downloads page: <https://www.microsoft.com/en-us/sql-server/sql-server-downloads>
2. Locate the section “Or, download a free specialized edition” and select Developer.
3. Click Download now. The small bootstrapper (SQL2022-SSEI-Dev.exe) will download.
4. (Alternative) For offline media, run the bootstrapper and choose Download Media, then select ISO.

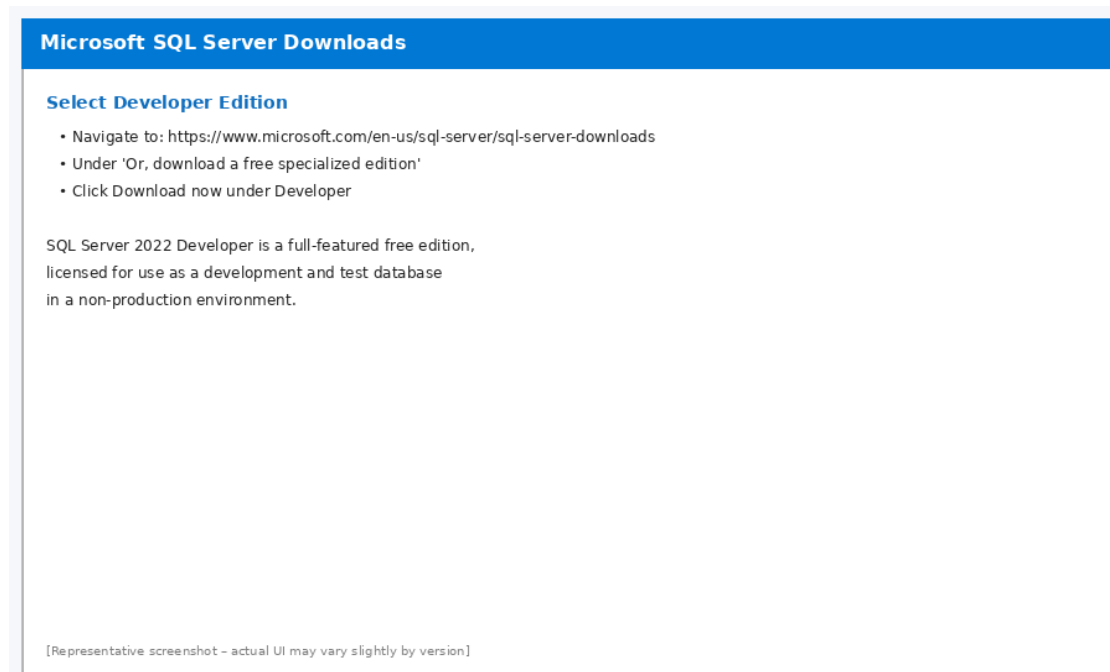


Figure 1 – Official SQL Server downloads page (Developer edition)

7. Procedure – Install SQL Server 2022 Developer Edition

Step 7.1 – Launch Setup

1. Right-click the downloaded SQL2022-SSEI-Dev.exe and select Run as administrator.

2. On the first screen choose Custom (recommended for enterprise control) or Download Media if preparing offline ISO.

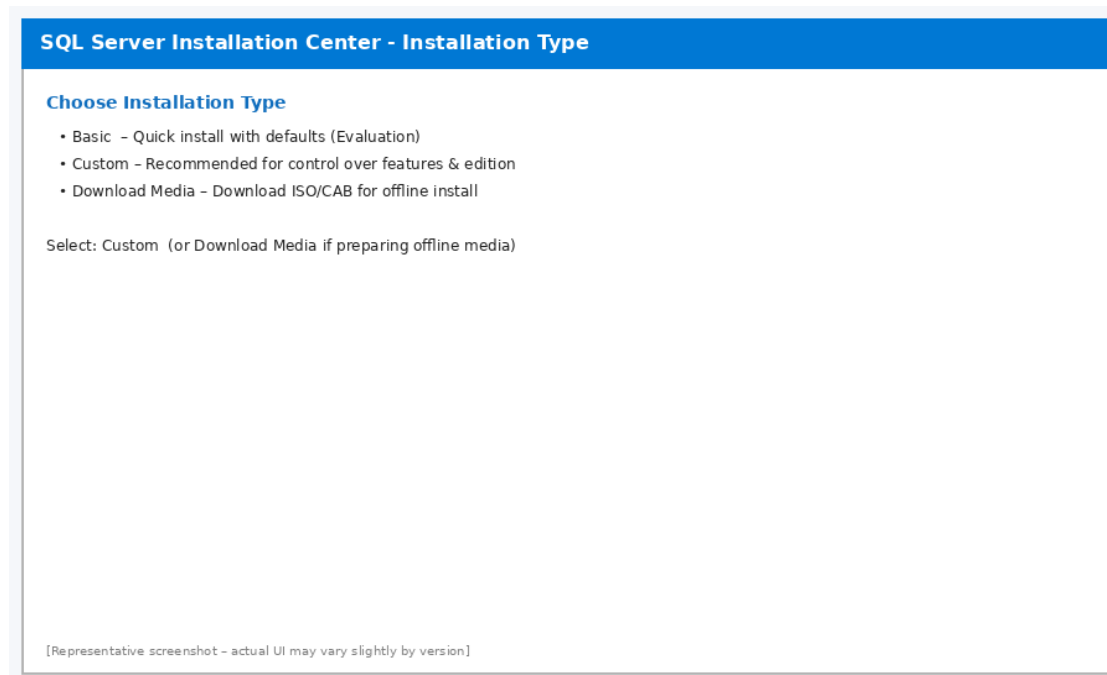


Figure 2 – Installation type selection

Step 7.2 – SQL Server Installation Center

1. In the Installation Center, select Installation in the left navigation pane.
2. Click New SQL Server stand-alone installation or add features to an existing installation.

Step 7.3 – Edition Selection

1. On the Product Key / Edition page, select Specify a free edition.
2. From the drop-down list choose Developer. Click Next.

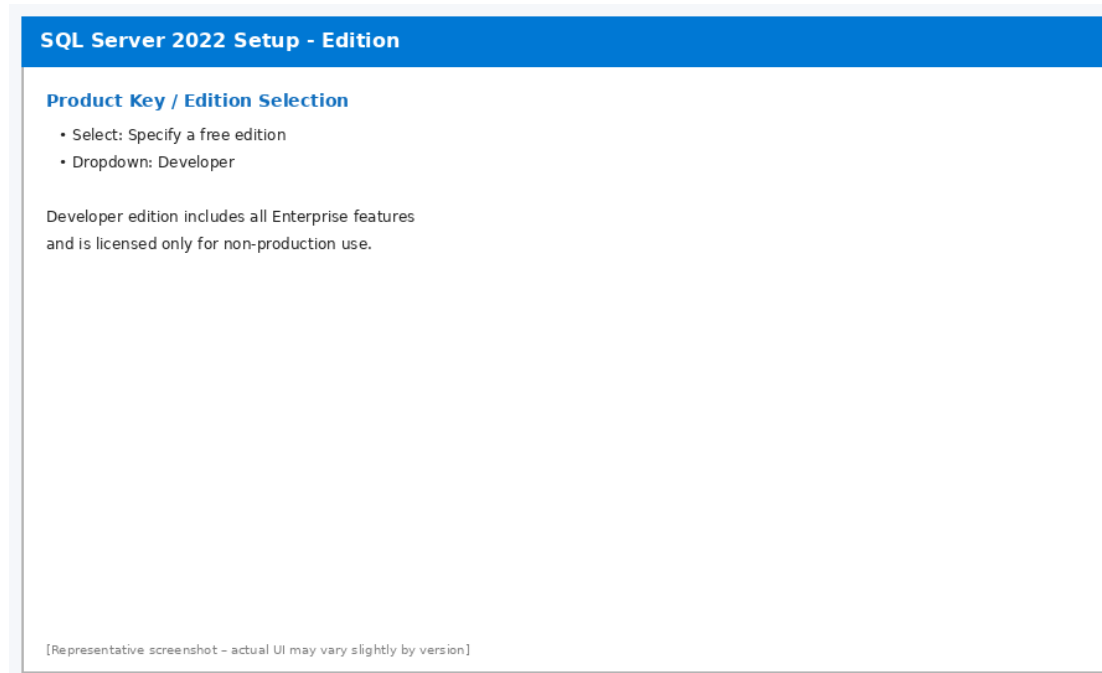


Figure 3 – Selecting Developer edition

Step 7.4 - License Terms

1. Review the license terms. Check I accept the license terms. Click Next.

Note: Developer Edition is licensed only for development and testing. Production use violates the EULA.

Step 7.5 - Microsoft Update (Recommended)

1. Check Use Microsoft Update to check for updates (recommended). Click Next.

Step 7.6 - Install Rules

1. Setup runs system configuration checks. Resolve any Failed rules before continuing. Warnings should be reviewed.

Step 7.7 - Feature Selection

Select the following recommended features for a development workstation:

- Database Engine Services (required)
- SQL Server Replication (optional)
- Full-Text and Semantic Extractions for Search (optional)
- Machine Learning Services and Language Extensions (optional)
- Client Tools Connectivity / Client Tools SDK

Accept the default shared feature directories unless organizational standards dictate otherwise. Click Next.

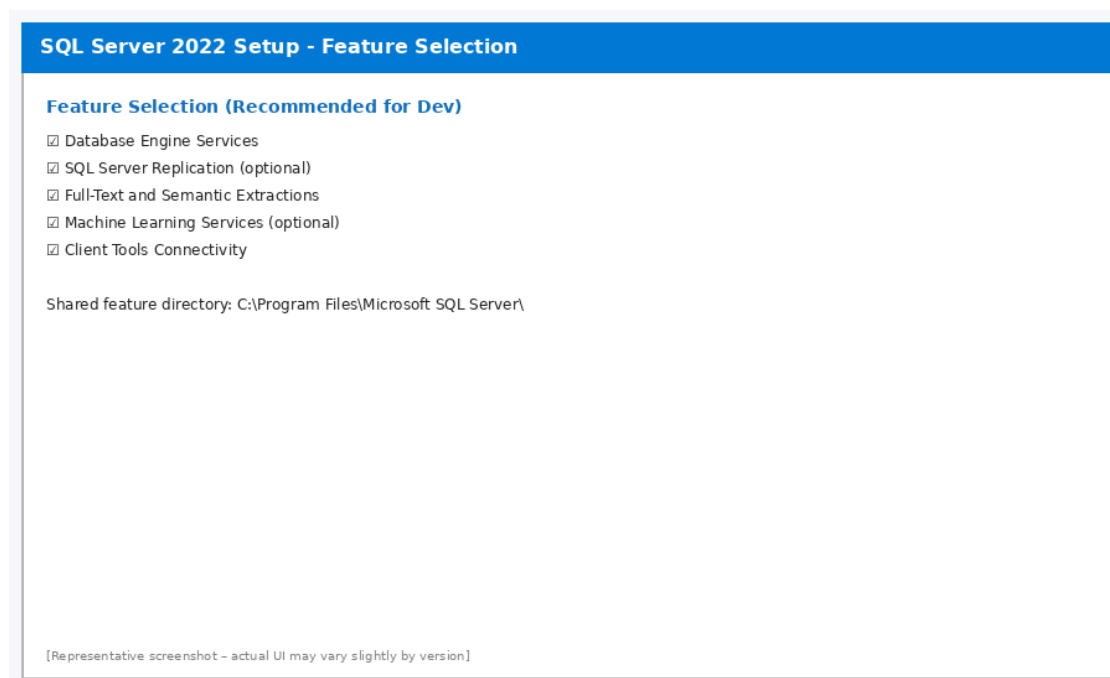


Figure 4 – Feature Selection page

Step 7.8 - Instance Configuration

1. Choose Default instance (MSSQLSERVER) unless multiple instances are required on the same machine.
2. If using a named instance, enter a short, meaningful name (e.g., DEV2022). Click Next.

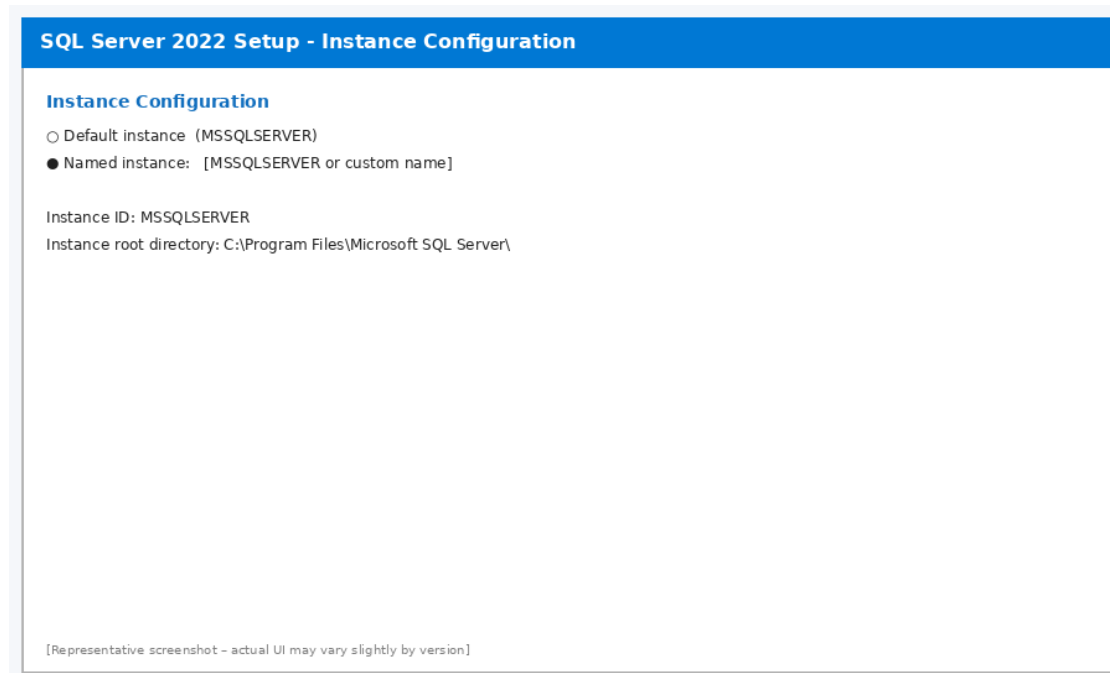


Figure 5 - Instance Configuration

Step 7.9 - Server Configuration (Service Accounts)

1. Accept the default virtual service accounts (NT Service\MSSQLSERVER and NT Service\SQLSERVERAGENT) for development machines.
2. Check Grant Perform Volume Maintenance Task privilege to SQL Server Database Engine Service (enables Instant File Initialization – highly recommended).
3. On the Collation tab, accept the default (SQL_Latin1_General_CP1_CI_AS) or select the organization-approved collation. Click Next.

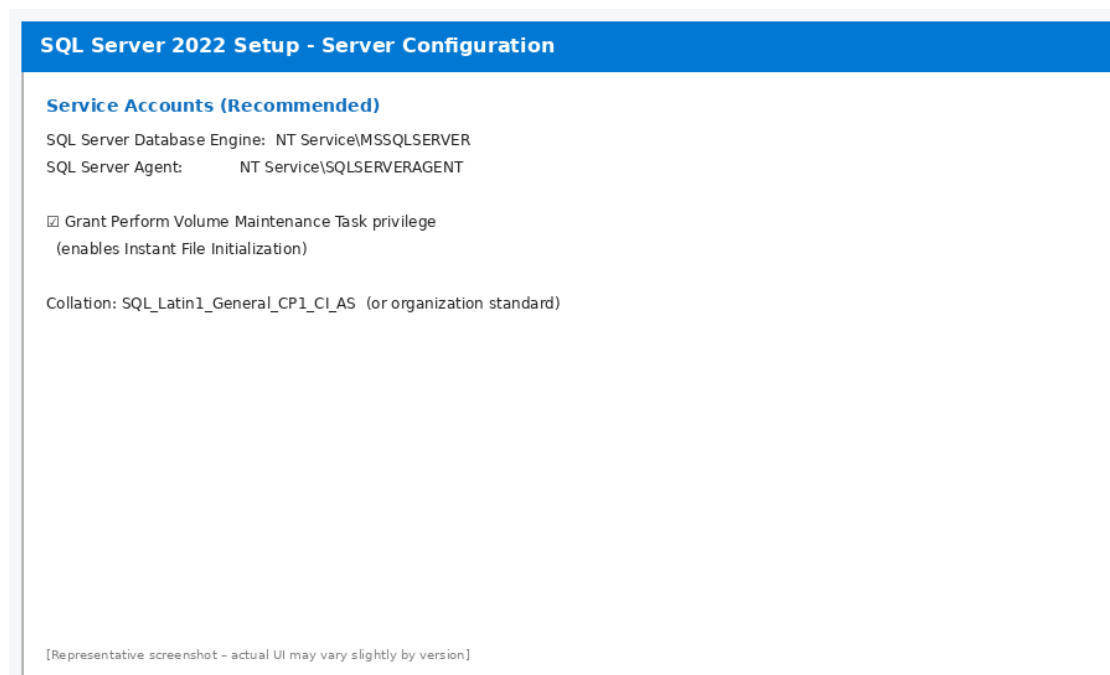


Figure 6 – Server Configuration / Service Accounts

Step 7.10 – Database Engine Configuration

1. Authentication Mode: Select Mixed Mode for maximum flexibility in development environments. Provide a strong password for the sa account (minimum 12 characters, complexity required).
2. Click Add Current User under Specify SQL Server administrators so the installing account is a sysadmin.
3. Optionally add additional Windows groups or accounts that require sysadmin rights.
4. On the Data Directories tab, review paths. For development machines the defaults are usually acceptable. For larger environments place data and log files on separate volumes.
5. On the TempDB tab, leave defaults or increase file count to match logical processors (up to 8). Click Next.

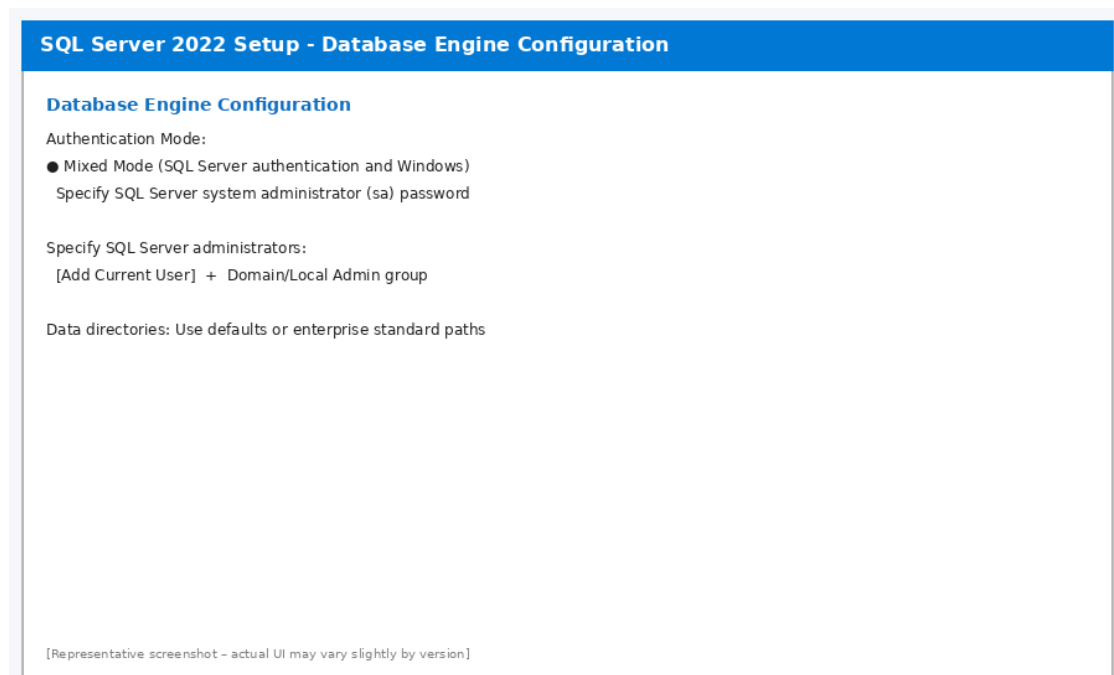


Figure 7 – Database Engine Configuration (Authentication & Admins)

Step 7.11 – Ready to Install & Completion

1. Review the summary. Click Install.
2. Wait for the installation to complete (typically 10–30 minutes).

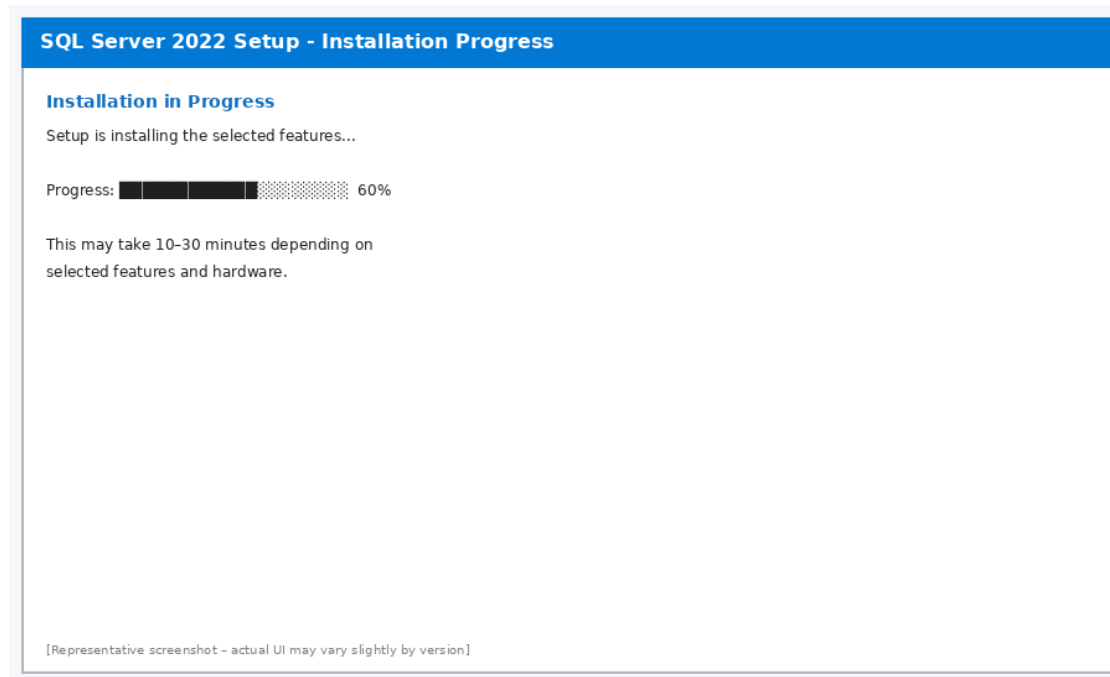


Figure 8 – Installation progress

3. When the Complete page appears, verify all features show Succeeded. Click Close.

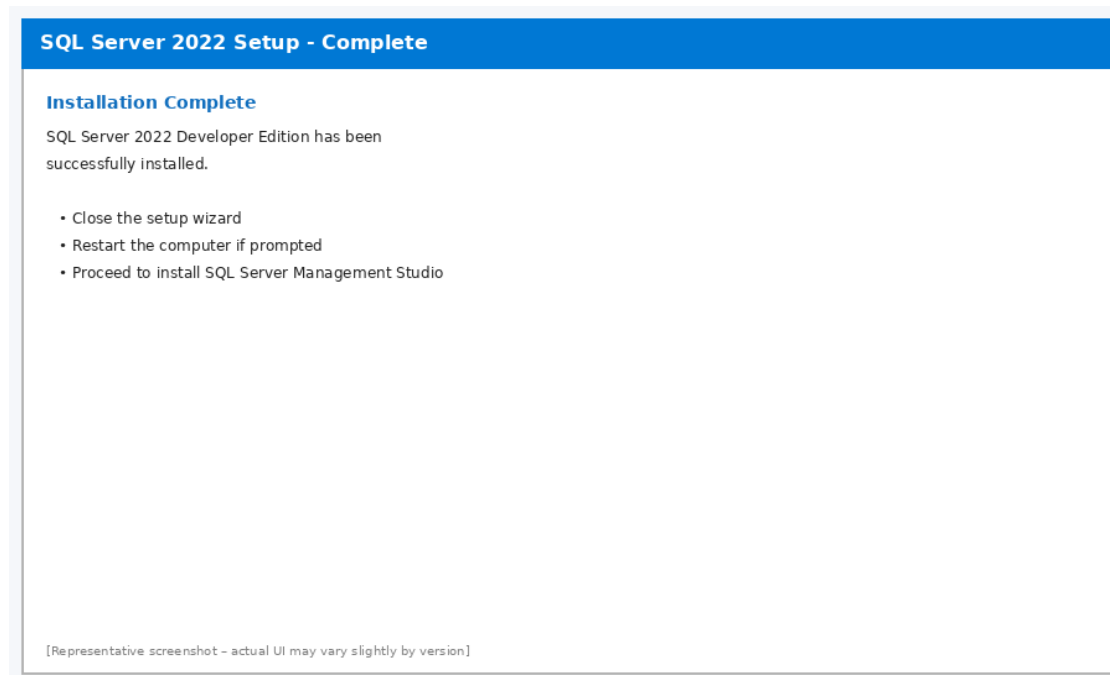


Figure 9 – Installation complete

4. Restart the computer if prompted by Windows or SQL Server setup.

8. Procedure – Install SQL Server Management Studio (SSMS)

SSMS is installed separately from the Database Engine. The current recommended version is SSMS 22 (Visual Studio Installer based). It is fully compatible with SQL Server 2022 and later.

Step 8.1 – Download SSMS 22

1. Navigate to the official download page or use the direct bootstrapper link:
https://aka.ms/ssms/22/release/vs_SSMS.exe
or from Learn: <https://learn.microsoft.com/en-us/ssms/install/install>
2. Save the small vs_SSMS.exe bootstrapper.

Step 8.2 – Install SSMS

1. Right-click vs_SSMS.exe → Run as administrator.
2. Accept the Microsoft Privacy Statement and Software License Terms. Click Continue.
3. The Visual Studio Installer opens. The default workload selection is sufficient for most users. Optional: add Hybrid and Migration or other components if required.
4. Click Install. Wait for the download and installation to finish.

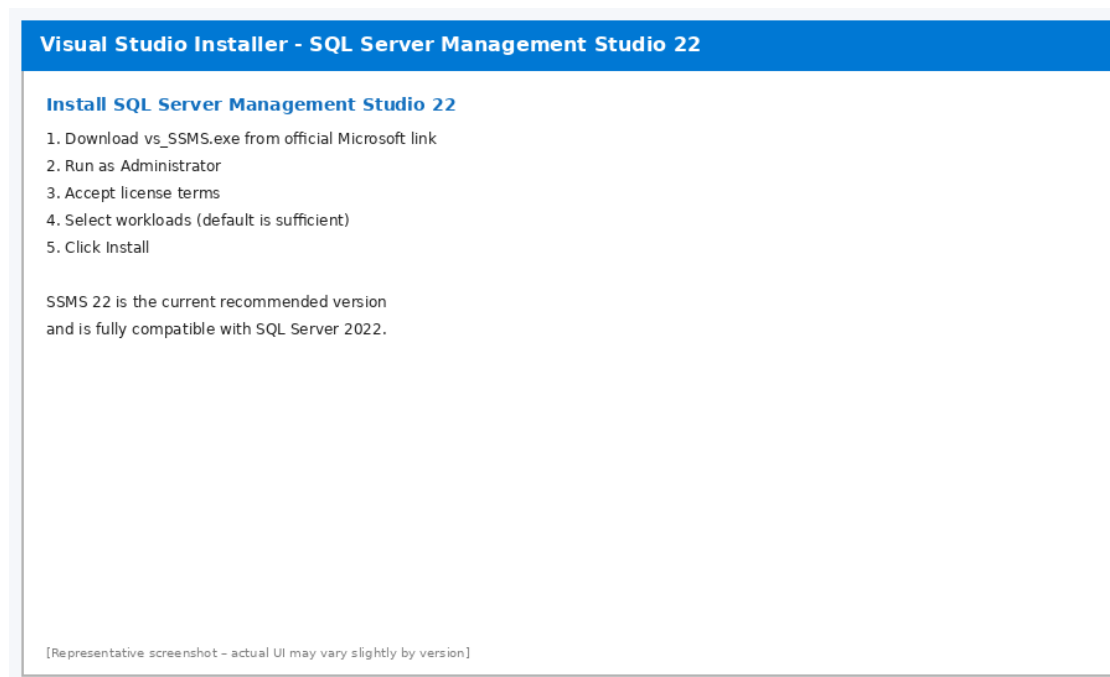


Figure 10 – SSMS 22 installation via Visual Studio Installer

5. When complete, launch SQL Server Management Studio from the Start menu.

9. Post-Installation Verification

Step 9.1 – Connect with SSMS

1. Open SQL Server Management Studio.
2. In the Connect to Server dialog:
 - Server type: Database Engine
 - Server name: localhost or . or (local) (default instance)

- Authentication: Windows Authentication (preferred) or SQL Server Authentication (sa)
3. Click Connect. Object Explorer should expand and show the instance, Databases, Security, etc.

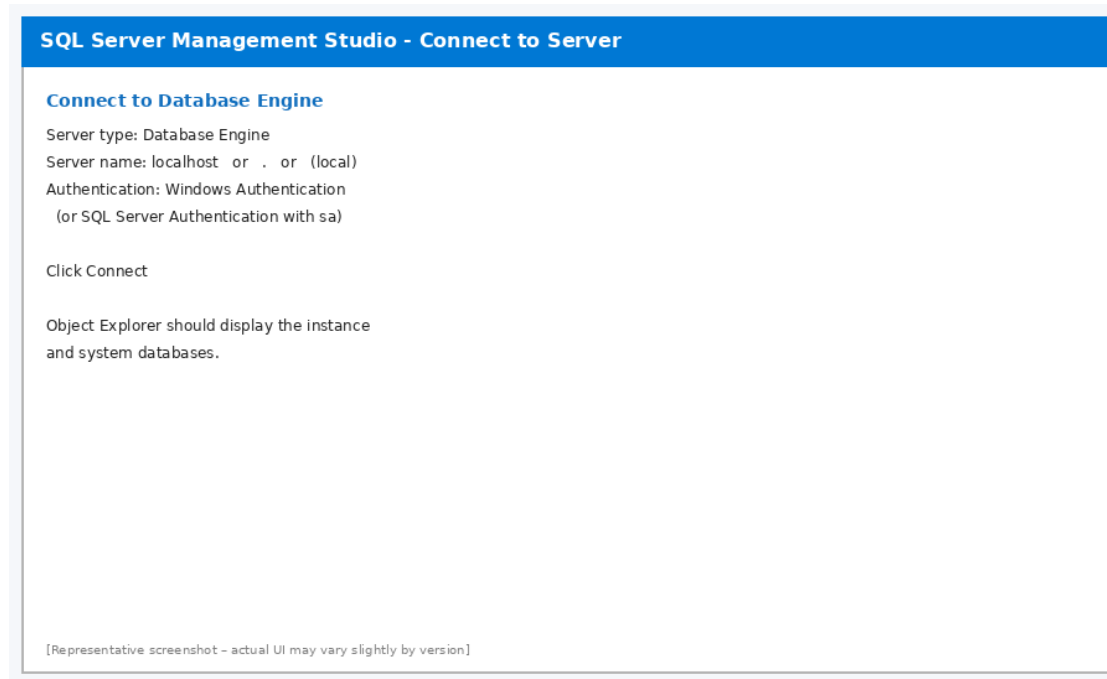


Figure 11 – Successful connection in SSMS

Step 9.2 - Validate Services

1. Open SQL Server Configuration Manager (search Start menu).
2. Confirm SQL Server (MSSQLSERVER) and SQL Server Agent services are Running and set to Automatic (or Automatic Delayed Start).

Step 9.3 - Optional: Apply Latest Cumulative Update

1. Check the latest CU for SQL Server 2022 at the Microsoft Update Catalog or Microsoft Learn release notes.
2. Download and install the CU as Administrator. Restart services or the machine if required.

Step 9.4 - Record the Installation

Document the following in the change/ticket system or asset inventory:

- Hostname / Machine name
- Instance name (default or named)
- Edition & version (SELECT @@VERSION)
- SSMS version
- Date of installation and installer identity

10. Troubleshooting Common Issues

Symptom	Resolution Guidance
Setup fails with pending restart	Restart Windows, then re-run setup. Especially critical on Windows Server 2022+.
Feature rules fail (e.g., .NET)	Install the missing prerequisite (.NET 4.7.2) and retry.
Cannot connect after install	Verify SQL Server service is running; check Windows Firewall allows TCP 1433 (or named instance port); confirm protocol (Shared Memory / TCP/IP) is enabled in Configuration Manager.
SSMS install hangs or fails	Ensure sufficient disk space; run vs_SSMS.exe as Administrator; clear Visual Studio Installer cache if needed.
sa login fails	Confirm Mixed Mode was selected; unlock the sa account if locked; reset password via single-user mode if necessary.
Antivirus interference	Temporarily exclude the setup directories and SQL Server data folders during installation.

11. References

- Microsoft Learn – Install SQL Server from the Installation Wizard (Setup)
- Microsoft Learn – Hardware and software requirements for SQL Server 2022
- Microsoft Learn – Install SQL Server Management Studio
- SQL Server 2022 Downloads:
<https://www.microsoft.com/en-us/sql-server/sql-server-downloads>
- SSMS Download: https://aka.ms/ssms/22/release/vs_SSMS.exe
- Editions and supported features of SQL Server 2022 (Microsoft Learn)

12. Document History

Version	Date	Author	Changes
1.0	23 Aug 2026	Platform Engineering	Initial release – SQL Server 2022 Developer + SSMS 22

End of Document

This SOP is controlled. Printed copies are uncontrolled. Always refer to the latest approved electronic version.