

SQL Server Tutorial For Beginners and Professionals



a way out
make an effort

Overview of Course

Audience

This Course is design for beginners as well as professionals' developers who want to learn SQL Server step by step from the very basics to the advanced level concepts of SQL Server. This Course provides a hands-on approach to learn SQL programming step-by-step with example.

What is SQL Server

The SQL Server is a relational database management system (RDBMS) which is developed by Microsoft. SQL Server is built on top of SQL, a standard programming language for interacting with the relational databases. This product is built on the basic function of storing, retrieving data as required by other applications. It can be run either on the same computer or on another across a network.

Prerequisites

There are no prerequisites required to learn SQL Server as we are going to start from the very basics

Course Content

Getting Started with SQL Server

SQL Server Basics

SQL Server Views

SQL Server Stored Procedures

SQL Server User-defined Functions

SQL Server Triggers

SQL Server Indexes

SQL Functions

SQL Server Aggregate Functions

SQL Server Date Functions

SQL Server String Functions

SQL Server System Functions

SQL Server Window Functions

Getting Started with SQL Server

- Download SQL Server 2019 and SQL Server Management Studio
- Install the SQL Server
- What is SQL Server
- Connect to the SQL Server
- SQL Server Sample Database

Download SQL Server 2019 and SQL Server Management Studio

1- SQL Server 2019 Developer Edition

To download SQL Server 2019, you click the following link:

[Download the SQL Server](#)

Microsoft provides you with some SQL Server editions. For learning purposes, you can download the Developer edition.

2- Microsoft SQL Server Management Studio

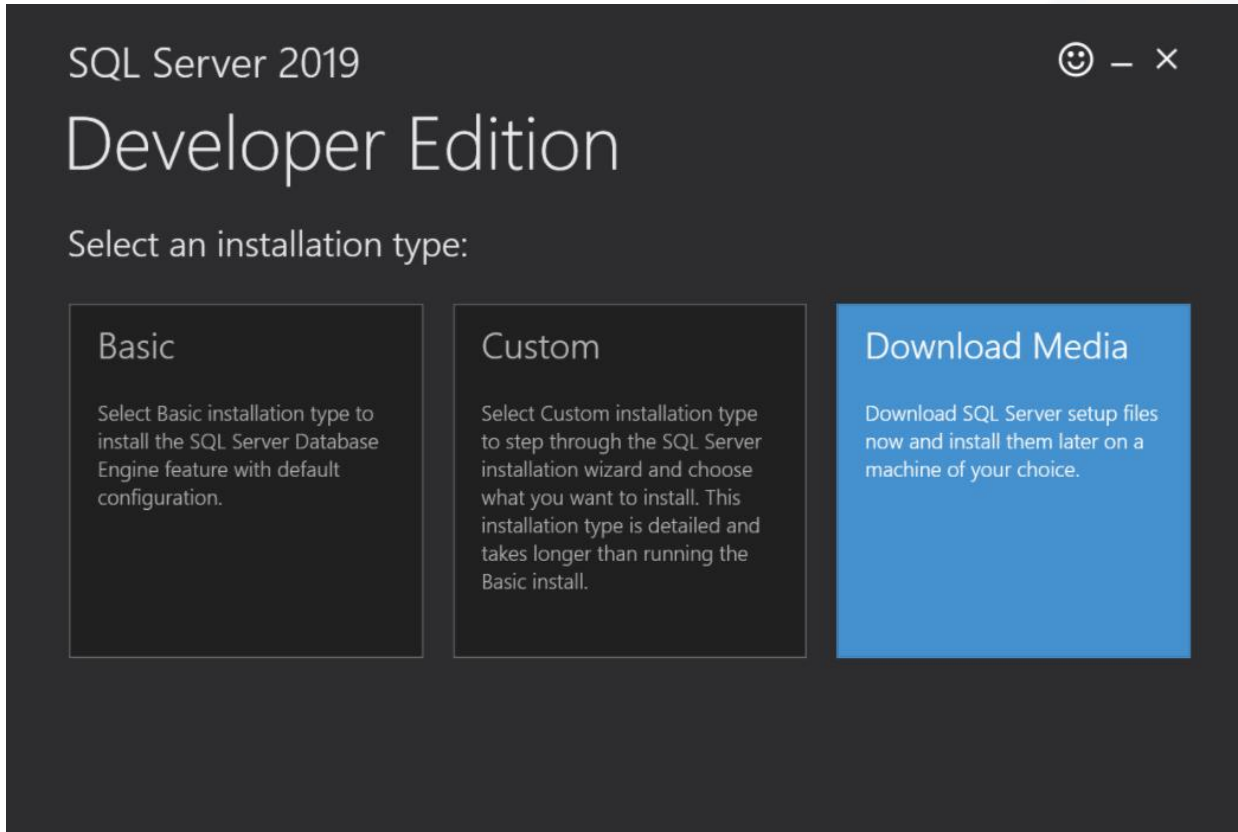
To interact with SQL Server, you need to have a SQL Server client tool. Install Microsoft SQL Server Management Studio

First, download the SSMS from the Microsoft website via the following link:

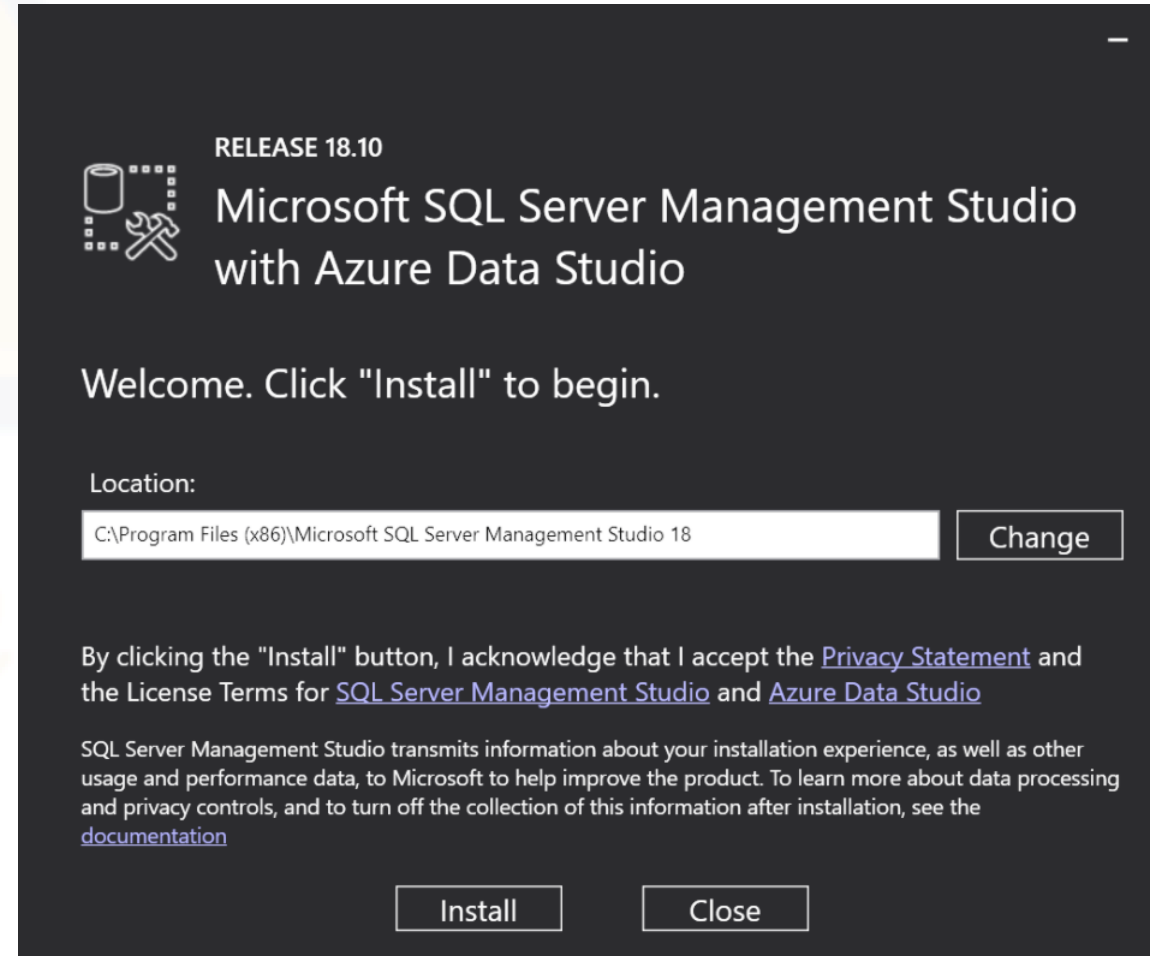
[Download SQL Server Management Studio](#)

Install the SQL Server

Install SQL Server 2019 Developer Edition

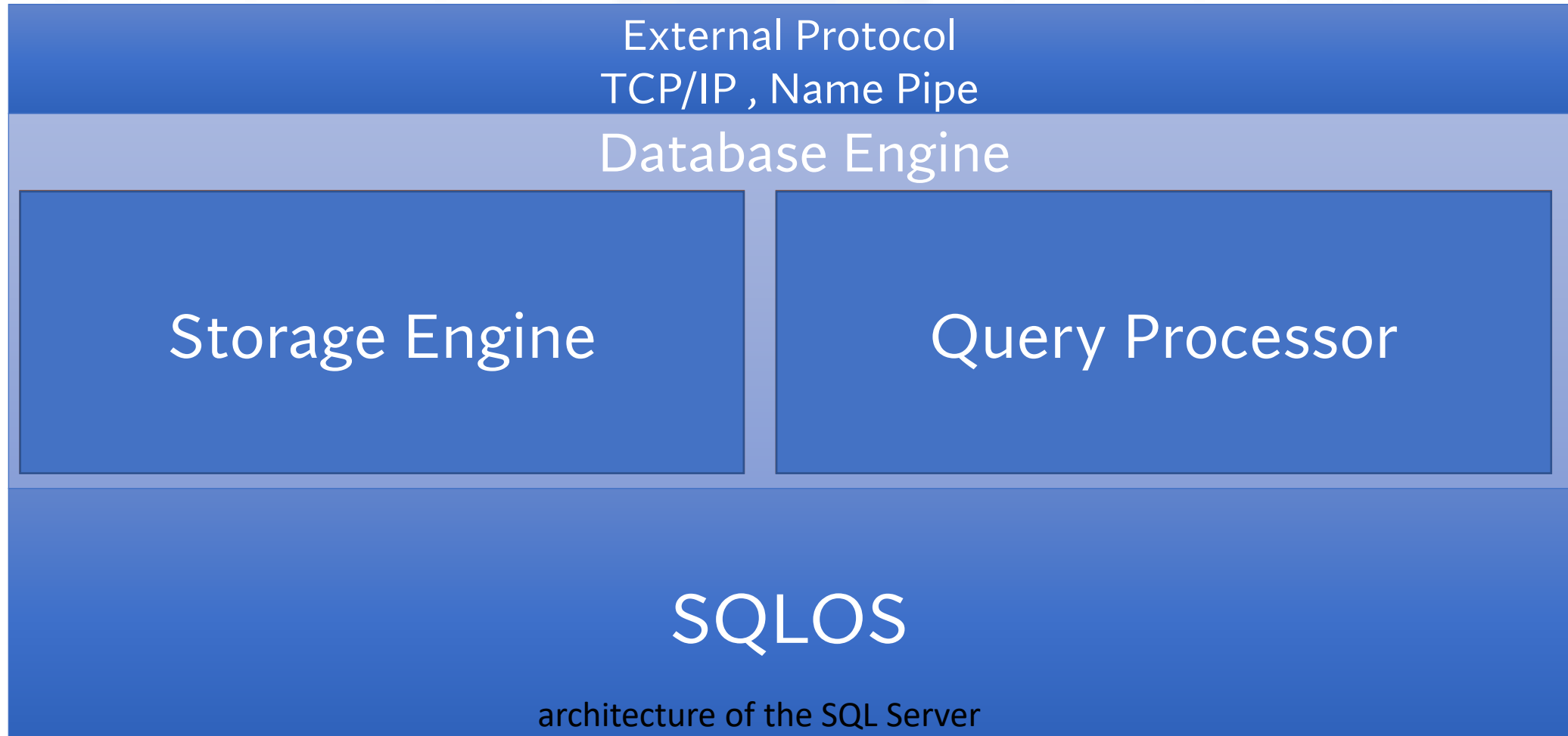


Install Microsoft SQL Server Management Studio



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1-Database Engine

SQL Server is the Database Engine. The Database Engine consists of a relational engine that processes queries and a storage engine that manages database files, pages, index, etc. The database objects such as stored procedures, views, and triggers are also created and executed by the Database Engine.

Relational Engine

The Relational Engine contains the components that determine the best way to execute a query. The relational engine is also known as the query processor.

The relational engine requests data from the storage engine based on the input query and processed the results. Some tasks of the relational engine include querying processing, memory management, thread and task management, buffer management, and distributed query processing.

Storage Engine

The storage engine is in charge of storage and retrieval of data from the storage systems such as disks and SAN.

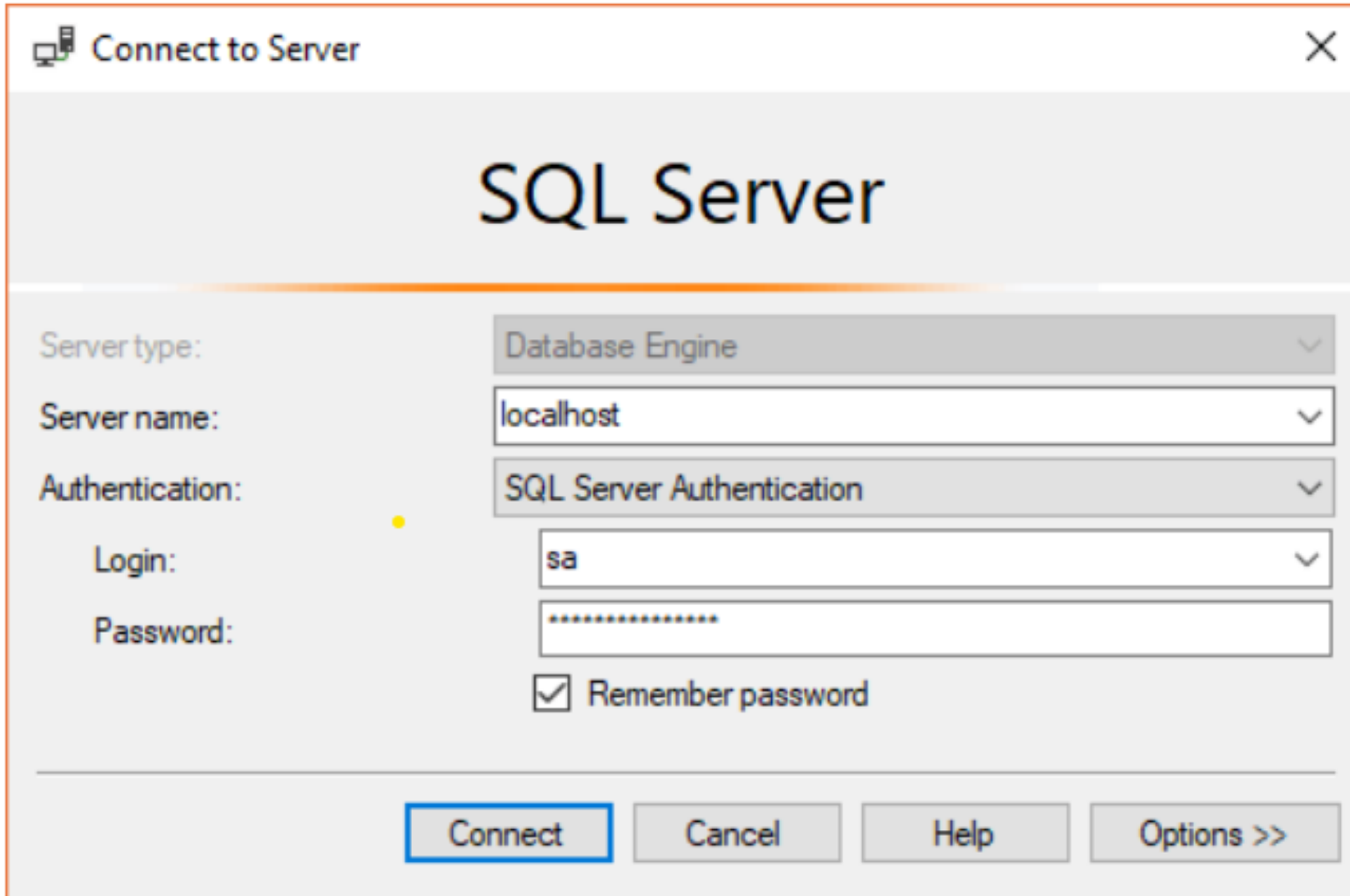
2.SQLOS

Under the relational engine and storage engine is the SQL Server Operating System or SQLOS.

SQLOS provides many operating system services such as memory and I/O management. Other services include exception handling and synchronization services.

Connect to the SQL Server using SSMS

To connect to the SQL Server using the Microsoft SQL Server Management Studio



The screenshot shows the 'Connect to Server' dialog box in Microsoft SQL Server Management Studio. The dialog has a title bar with a server icon and the text 'Connect to Server'. The main area is titled 'SQL Server'. Below the title, there are several input fields and a checkbox. The 'Server type' dropdown is set to 'Database Engine'. The 'Server name' dropdown is set to 'localhost'. The 'Authentication' dropdown is set to 'SQL Server Authentication'. The 'Login' dropdown is set to 'sa'. The 'Password' field is masked with dots. The 'Remember password' checkbox is checked. At the bottom, there are four buttons: 'Connect', 'Cancel', 'Help', and 'Options >>'. The 'Connect' button is highlighted with a blue border.

Connect to Server

SQL Server

Server type: Database Engine

Server name: localhost

Authentication: SQL Server Authentication

Login: sa

Password:

☒ Remember password

Connect Cancel Help Options >>

SQL Server Sample Database

