

Database Management System Lab (Week1_Spring 2022) Department of Computer Science



Instructor:	CLO
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Learning Objectives:

- Installation of SQL server and SSMS.
- Create a new database named Northwind
- Restore Schema using scripts northwind.sql
- · Restore schema data using northwind data.sql

1. System Requirements for SQL Server 2019

1.1. Operating system

Windows 10 TH1 1507 or greater and Windows Server 2016 or greater

1.2. .NET Framework

SQL Server 2016 (13.x) RC1 and later require .NET Framework 4.6 for the Database Engine, Master Data Services, or Replication. SQL Server setup automatically installs .NET Framework. You can also manually install .NET Framework from Microsoft .NET Framework 4.6 (Web Installer) for Windows.

1.3. Disc Space

SQL Server requires a minimum of 6 GB of available hard-disk space.

1.4. **Memory**

At least 4 GB and should be increased as database size increases to ensure optimal performance.

1.5. **Processor**

- Minimum: x64 Processor: 1.4 GHz, Recommended: 2.0 GHz or faster
- x64 Processor: AMD Opteron, AMD Athlon 64, Intel Xeon with Intel EM64T support, Intel Pentium IV with EM64T support

1.6. **Monitor**

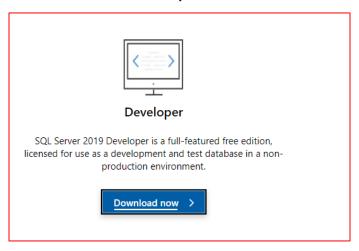
SQL Server requires Super-VGA (800x600) or higher resolution monitor.

2. Installation guide

Important Note:

- **2.1.** connect your system with internet and download the developer edition using this given link: https://www.microsoft.com/en-us/sql-server/sql-server-downloads
- **2.2.** Login on window with as Administrator

Or, download a free specialized edition



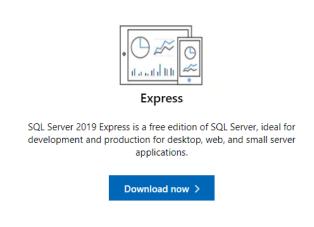


Figure 1: SQL downloading version

2.3. Once downloaded then click on the .exe file and run.

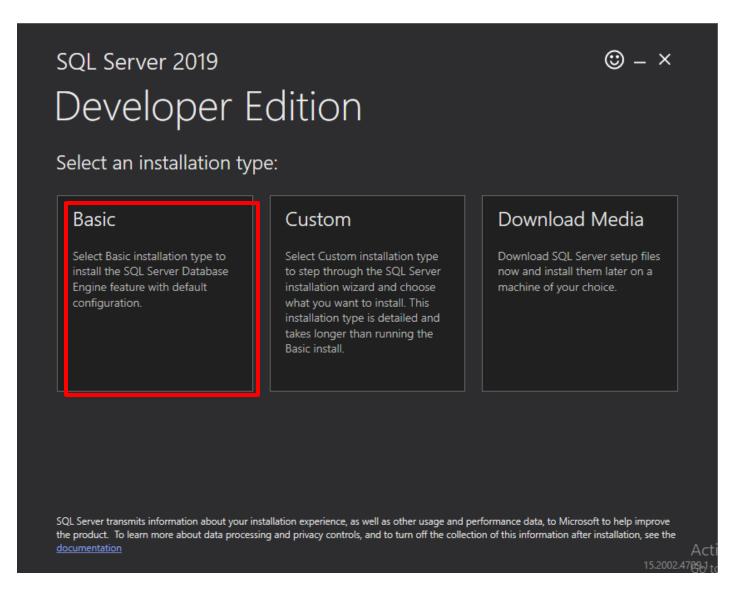


Figure 2: Selection of basic version

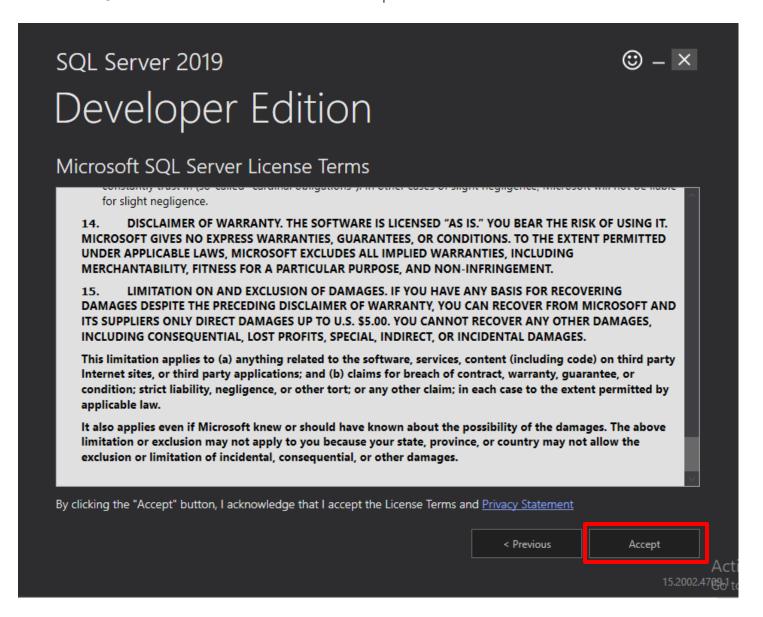


Figure 3: Terms and conditions for installing SQL Server



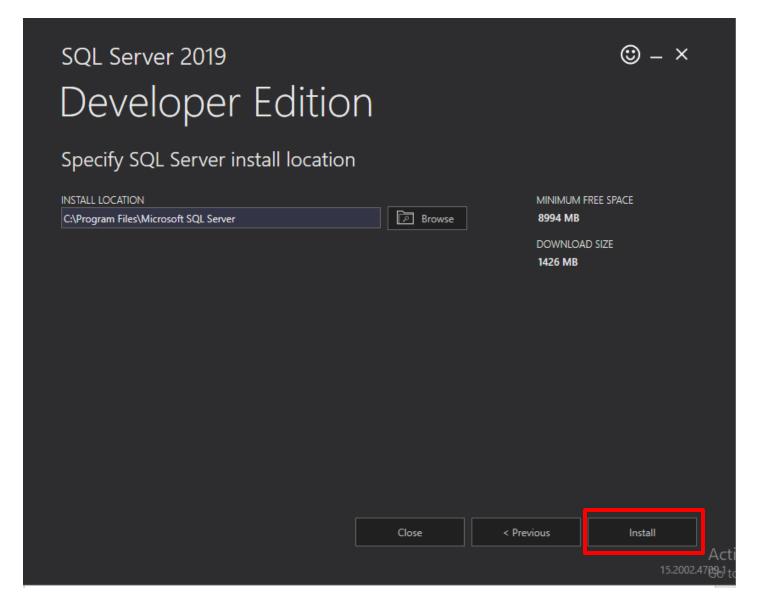


Figure 4: Starting the installation process by clicking on install button

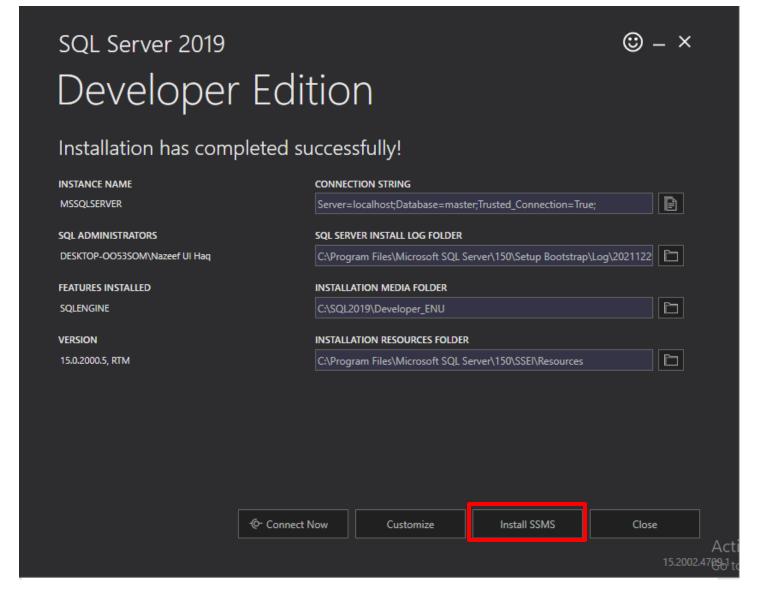


Figure 5: Installation has completed successfully

2.8. Click on highlighted link. It will download .exe file of SSMS. After downloading run .exe file.

Download SQL Server Management Studio (SSMS)

Article • 12/08/2021 • 7 minutes to read • 🕝 🕝 🌑 🚳 😝 Is this page helpful? 🖒 🖓

Applies to: ✓ SQL Server (all supported versions) ✓ Azure SQL Database ✓ Azure SQL Managed Instance ✓ Azure Synapse Analytics

SQL Server Management Studio (SSMS) is an integrated environment for managing any SQL infrastructure, from SQL Server to Azure SQL Database. SSMS provides tools to configure, monitor, and administer instances of SQL Server and databases. Use SSMS to deploy, monitor, and upgrade the data-tier components used by your applications, and build queries and scripts.

Use SSMS to query, design, and manage your databases and data warehouses, wherever they are - on your local computer, or in the cloud.

Download SSMS



SSMS 18.10 is the latest general availability (GA) version. If you have a previous GA version of SSMS 18 installed, installing SSMS 18.10 upgrades it to 18.10.

Release number: 18.10

Build number: 15.0.18390.0

Figure 6: Version of SSMS for installation

2.9. Click on Install and wait until installation is done successfully.

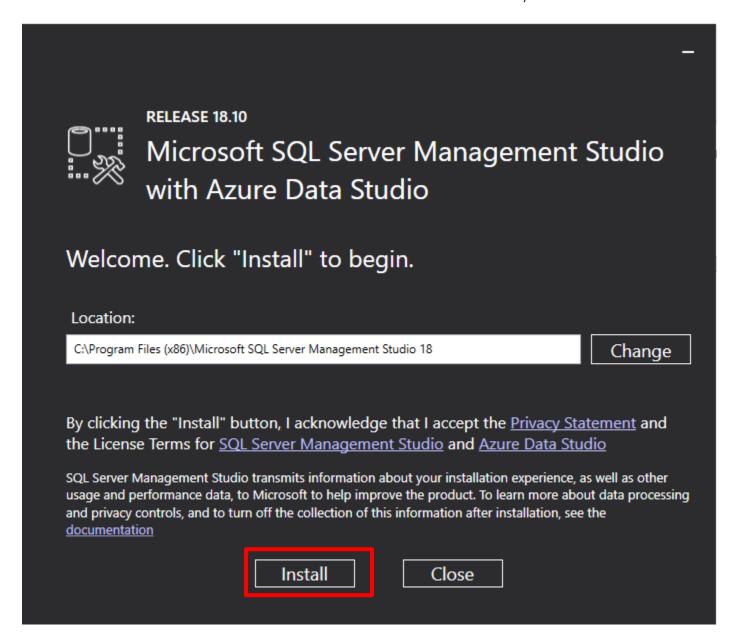


Figure 7: Installation of SSMS

3. Generate Scripts of a schema

• Step 1

Right click on your database and select Task -> generate script.

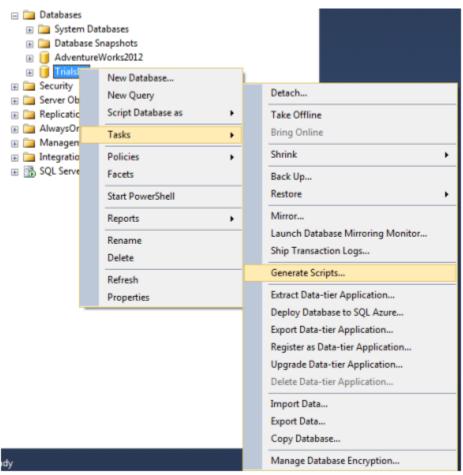


Figure 8: Database_Scripts_With_Data_Select_Option

• Step 2

Click next in the introduction screen

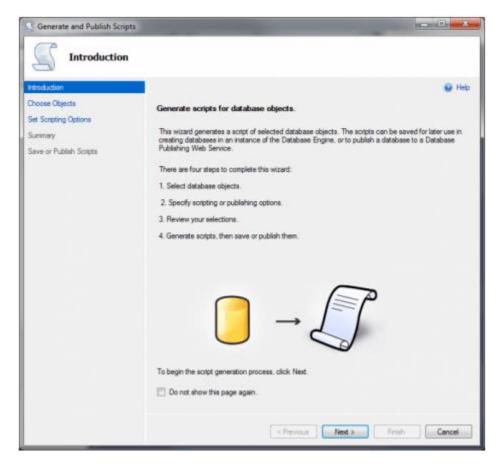


Figure 9: Database_Scripts_With_Data_Introduction

• Step 3

Select the database object which you are all you need and then click next.

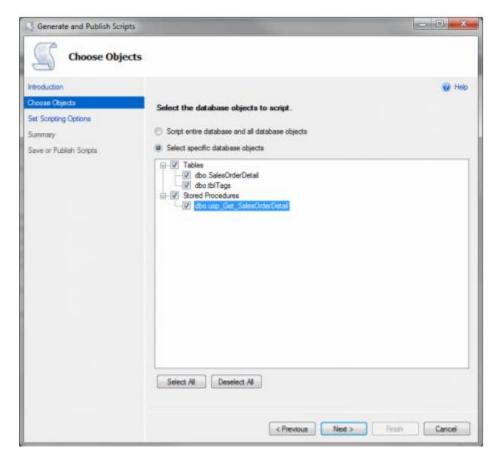


Figure 10: Selecting database objects

Step 4

Now you will be shown a window which asks you about how your script should be published.

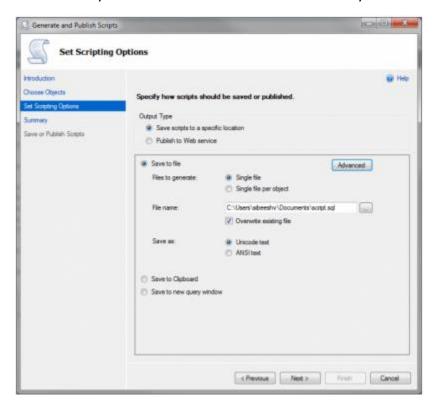


Figure 11: Database_Scripts_With_Data_Publish_Options

Click on advanced in that window.

Step 5 Select 'Schema and data' from type of data to script option and then click OK.

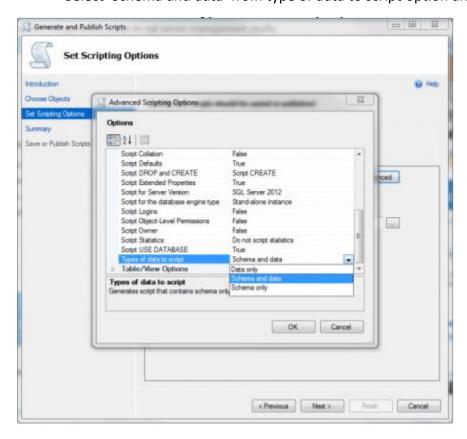


Figure 12: Database_Scripts_With_Data_Advanced

Click on Next.

• Step 6

Click finish, now check the script file, it must be having the insert queries too.

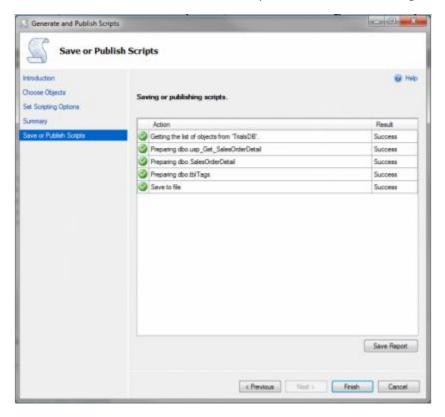


Figure 13: Database_Scripts_With_Data_Finish

Now what else is pending, go ahead and run your script.

4. Lab Tasks

- 1. Create a new database named TestDB_2020_CS_X
- 2. Create a new table named student using some attributes
- 3. Generate Scripts of your database
- 4. Restore your schema to another machine
- 5. Generate scripts of data
- 6. Restore data to other system as well