**Tasks:**

**Task 1: Answer the following questions:**

1. **After learning about the system requirements and different versions of SQL Servers, which version (2014, 2016, etc) and edition (standard, express, etc) have you planned to install on your machine?**

**Solution:**

I have installed SQL Server 2019 version and its Express edition.

1. **Depending on the version you choose, enlist the server components and management tools that will automatically be installed along with core Server.**

**Solution:**

Following are the management tools that will automatically installed along with core server.

* SQL Server Database Engine
* Analysis Services
* Reporting Services
* Integration Services
* Master Data Services
* Machine Learning Services
* Machine Learning Server (Standalone) • Microsoft SQL management studio 18.
* SQL Server Profiler 18
* Database Engine tuning advisor 18

**Task 2: Write down the installation steps with proper screenshots, where needed.**

**SQL Server Management Studio (SSMS) installation**

1. I click on Install SSMS or download SSMS via below mentioned web link

SSMS Download Link – https://docs.microsoft.com/en-us/sql/ssms/download-sql-server-management-studio-ssms?view=sql-sGraphical user interface, text

Description automatically generatedeGraphical user interface, application

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4. After the finish installation, Restart server.

5. Finally SQL Server Management Studio (SSMS) is installed on your Server.

**How to connect MS SQL 2019 Express Edition to SQL Server Management Studio (SSMS)**

1. Click on Windows Home and search **“SQL Server Management Studio”** and click to start SSMS

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2. Click on connect to connect your MS SQL 2019 Express Database via Windows Authentication

Graphical user interface, application

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**Task 3: Write down the data types used in SQL Server.**

Table

Description automatically generatedSQL Server Data Types

**String types:**

|  |  |  |
| --- | --- | --- |
| Data type | Description | Storage |
| tinyint | Allows whole numbers from 0 to 255 | 1 byte |
| smallint | Allows whole numbers between -32,768 and 32,767 | 2 bytes |
| int | Allows whole numbers between -2,147,483,648 and 2,147,483,647 | 4 bytes |
| bigint | Allows whole numbers between -9,223,372,036,854,775,808 and 9,223,372,036,854,775,807 | 8 bytes |
| decimal(p,s) | Fixed precision and scale numbers. | 5-17 bytes |

A picture containing graphical user interface

Description automatically generated**Date types:**

|  |  |
| --- | --- |
| Data type | Description |
| sql\_variant | Stores up to 8,000 bytes of data of various data types, except text, ntext, and timestamp |
| uniqueidentifier | Stores a globally unique identifier (GUID) |
| xml | Stores XML formatted data. Maximum 2GB |
| cursor | Stores a reference to a cursor used for database operations |
| table | Stores a result-set for later processing |

**Other data types**