**Assignment-1**

1. **Install MS SQL server**

**Ans. Steps:**

1. Download Microsoft SQL Server
2. Download developer edition for free
3. Open the downloaded file and click on custom to install the software
4. Select the media location then installation will begin
5. Click on sql server stand-alone and wait to open a new window then click next
6. Select the option perform a new installation of sql server and then next
7. Select free edition then click next
8. Accept the license terms and conditions then click next
9. Select the features and click on next
10. Give the Named instance and instance ID then click on next
11. Again next
12. Select the authentication mode as a Mixed mode and enter the desired password and add the current user then click next
13. Click on install
14. When installation is complete then we need to install SQL server management tools
15. Download the SQL server management studio from Microsoft.
16. Open the downloaded file and install SSMS-ENU setup
17. Once this installation is completed, we can use the SSMS tool
18. Open SSMS
19. We need to give the password which has been given while creating the instance.

A computer screen with a computer screen

Description automatically generated

1. Create database

A computer screen with a white screen

Description automatically generated

1. **Give the difference between char and varchar data type**

**Ans.**

|  |  |
| --- | --- |
| **Char** | **Varchar** |
| It is used to store character strings of fixed length | It is used to store character strings of variable length |
| It uses static memory location. | It uses dynamic memory location. |
| Used when the data values in column are of same length | Can be used when the data values in column are of same or different length |
| The storage size is equal to the defined length (n-bytes). | The storage size is equal to the actual length of the entered string in bytes. |

1. **Explain the type of SQL commands.**

**Ans.** There are five types of SQL commands-

1. DML (data manipulation language)

* Insert – used to insert a data in a table
* Update – used to update or add or replace the data in a table
* Delete – used to delete the data in a table

1. DDL (data definition language)

* Create – to create a table or function in database
* Alter – to change the information of a table or function within the same database
* Drop – to remove the table from the database

1. DCL (data control language) – to control access the data within the database

* Grant – used to grant permission to a user to perform a particular task on a object.
* Revoke – used to take permission back from the user

1. DQL (data query language)

* Select – to compose the query against the database

1. TCL (transactional control language)- These commands are used for maintaining consistency of the database.

* Commit – used to save the data permanently.
* Rollback – used to restore the data from last savepoint.
* Savepoint – used the save the data temporarily.

1. **Explain NVarchar and Nchar**

**Ans.** Nvarchar and Nchardata are the type of Unicode datatype. Unicode datatype is a universal character encoding language which takes about 16 bit encompassing many other language including English.

**Nvarchar**

* it stands for National Variable character.
* it stores variable length of character datatype.

**Nchar**

* it stands for national character.
* it stores fixed length of character datatype.