

Data Types in SQL Server with Examples

SQL Server provides a variety of data types to store different kinds of data. Below is a list of common SQL Server data types with examples:

1. **INT (Integer)**:

- Used to store whole numbers.
- Example: `age INT`

2. **VARCHAR (Variable Character)**:

- Used to store variable-length alphanumeric data.
- Example: `name VARCHAR(50)`

3. **CHAR (Fixed-length Character)**:

- Used to store fixed-length alphanumeric data.
- Example: `status CHAR(1)`

4. **DECIMAL/NUMERIC**:

- Used to store fixed-precision and scale numbers.
- Example: `price DECIMAL(10, 2)`

5. **FLOAT**:

- Used to store floating-point numbers.
- Example: `rating FLOAT`

6. **DATETIME**:

- Used to store date and time data.
- Example: `created_at DATETIME`

7. **BIT**:

- Used to store Boolean data (0 or 1).
- Example: `is_active BIT`

8. **BINARY**:

- Used to store binary data of fixed length.
- Example: `binary_data BINARY(50)`

9. **VARBINARY**:

- Used to store binary data of variable length.
- Example: `file VARBINARY(MAX)`

10. **TEXT** (Deprecated):

- Used to store large amounts of text data.
- Example: `description TEXT`

11. **NVARCHAR**:

- Used to store Unicode data of variable length.
- Example: `username NVARCHAR(100)`

12. **SMALLINT**:

- Used to store small-range whole numbers.

- Example: ``small_value SMALLINT``

13. **BIGINT**:

- Used to store large-range whole numbers.

- Example: ``large_value BIGINT``

14. **REAL**:

- Used to store approximate floating-point numbers.

- Example: ``distance REAL``

15. **UNIQUEIDENTIFIER**:

- Used to store globally unique identifiers (GUID).

- Example: ``id UNIQUEIDENTIFIER``

These data types allow flexibility to store and manipulate data effectively based on requirements.