|  |  |
| --- | --- |
| What is the difference between varchar and nvarchar? | Firstly, each one uses a different amount of storage. **Nvarchar** uses **2 bytes** per characterwhere **varchar** only uses **1 byte** per character.Furthermore, **nvarchar** can store any **Unicode data. Varchar** is restricted to an **8-bit codepage.** |
| What is the difference between decimal and numeric data type? | They are the same. **Numeric** is functionally equivalent to **decimal.** |
| What is the difference between a float and a real number? | **Real** datatypes have the storage of **4 bytes.** A **float** has storage of **8 bytes. Float** depends on n. |
| What is the difference between datetime and datetime2? | **Datetime** and **Datetime2** do not vary much**.** The main difference is that **Datetime** 2 has a **larger date range. Datetime2** HAS all dates from year 1 to 9999 while **Datetime ONLY** has from 1900 to 2079 |
| Of the four INT data types, which one represents a 32-bit integer? | **2,147,483,647** is the **maximum** positive value fora **32-bit.** Likewise, bit has nearly the same exact **maximum** value.Therefore a **32-bit** integerwould be represented as the **INT** datatype. |
| What are the scale and the precision of a decimal value? | **Precision** is the maximum total number of decimal digits that will be stored both left and right to the decimal point. Must be a value from 1 through 38. Default is 18. **Scale** is the number of decimal digits that will be stored to the right of the decimal point. This number is subtracted from p to determine the maximum number of digits to the left of the decimal point. |
| When you use CAST and CONVERT to reduce the number of digits to the right of a decimal point, do they perform rounding on the last digit remaining (i.e. 32.51532 to 32.52) or do they simply drop digits? Do the two functions work the same in this regard? Support your answers with SQL queries. | **No,** they do not round the last digits. Cast and convert do work in the same way. Both are used to convert data from tone data type to another, and it is no coincidence because they share the same entry in MSDN. This is an example of both **CAST** and **CONVERT** in the same statement.  SELECT CAST ('10' as int) \* 20,  CONVERT (int, '10') \* 20 |

|  |
| --- |
| **Sources** |
| [**https://dba.stackexchange.com/questions/36081/write-differences-between-varchar-and-nvarchar**](https://dba.stackexchange.com/questions/36081/write-differences-between-varchar-and-nvarchar)  [**https://stackoverflow.com/questions/144283/what-is-the-difference-between-varchar-and-nvarchar**](https://stackoverflow.com/questions/144283/what-is-the-difference-between-varchar-and-nvarchar)  [**https://stackoverflow.com/questions/759401/is-there-any-difference-between-decimal-and-numeric-in-sql-server**](https://stackoverflow.com/questions/759401/is-there-any-difference-between-decimal-and-numeric-in-sql-server)  [**https://stackoverflow.com/questions/1056323/difference-between-numeric-float-and-decimal-in-sql-server**](https://stackoverflow.com/questions/1056323/difference-between-numeric-float-and-decimal-in-sql-server)  **https://stackoverflow.com/questions/1334143/datetime2-vs-datetime-in-sql-server**  [**https://docs.microsoft.com/en-us/sql/t-sql/data-types/int-bigint-smallint-and-tinyint-transact-sql**](https://docs.microsoft.com/en-us/sql/t-sql/data-types/int-bigint-smallint-and-tinyint-transact-sql)  **https://www.essentialsql.com/what-is-the-difference-between-cast-and-convert/** |