

# Data Type Basics

## Two Character Data Types

### Regular

1 byte (8bits) for each character

English + 1 Language

Literal expressions:  
use ' (single quotes)

### Unicode

2 bytes (16bits) for each character

Multiple Languages

Literal expressions:  
use *N (National) as a prefix*

## Data Type Basics

### *Fixed Length*

*Without VAR element  
in Data Type Name*

*Column Size is defined  
e.g. CHAR(25) regardless of  
length of data stored. Eight  
characters will still take 25  
character space.*

*Write-Focused  
Systems*

### *Variable Length*

*With VAR element  
in Data Type Name*

*Uses as much as required + 2  
bytes. Column Size can be  
defined as VARCHAR(25). This  
means MAX size is 25 + 2 bytes  
but shorter data will take less  
space*

*Read Operations are  
faster*

# Data Type Basics

## Data Type Precedence

*When comparing or combining data types. SQL server will convert one data type to the other.*

*Converting Data Types: SQL server will convert lower data type to higher data type.*

### *Ranking Order*

*XML  
Datetime2  
Date  
Time  
Decimal  
Int  
Tinyint  
Nvarchar  
Char*