

SQL Server 2016 Data Types

Data Type	# Bytes	Notes
Integer Data Types		
bigint	8	From -9,223,372,036,854,775,808 to 9,223,372,036,854,775,807
int	4	From -2,147,483,648 to 2,147,483,647
smallint	2	From -32,768 to 32,767
tinyint	1	From 0 to 255
bit	1	1 or 0
Decimal Data Types		
decimal [(p[,s])]	5-17	Decimal numbers with fixed precision and scale -10^{38}
numeric [(p[,s])]	5-17	Synonymous with decimal
money	8	Four decimal places from -922,337,203,685,447.5808 to 922,337,203,685,447.5807
smallmoney	4	Four decimal places from -214,748.3648 to 214,748.3647

Real data types		
Float [(n)]	4 or 8	Double precision floating point numbers from -1.79×10^{308} to 1.79×10^{308}
real	4	From -3.4×10^{38} to 3.4×10^{38}
String Data Types (Standard ASCII Characters)		
char[(n)]	n	Fixed length strings (between 1 and 8000)
varchar[(n)]	n	Variable length strings (between 1 and 8000)
String Data Types (Unicode Characters)		
nchar[(n)]	2xn	Fixed length strings (between 1 and 4000)
nvarchar[(n)]	2xn	Variable length strings (between 1 and 4000)
Date/Time data types (prior to SQL Server 2008)		
datetime	8	From Jan1, 1753 to Dec 31, 9999 - accuracy of 3.33 ms
smalldatetime	4	From Jan1, 1900 to Jun 6, 2079 - accuracy of 1 minute

Date/Time data types (added to SQL Server 2008)		
date	3	From Jan1, 0001 to Dec 31, 9999 (date only)
time(n)	3-5	From 00:00:00.0000000 to 23:59:59.9999999 - n is fractional precision you specify
datetime2(n)	6-8	From Jan1, 0001 to Dec 31, 9999 (date only) with time portion from 00:00:00.0000000 to 23:59:59.9999999 - n is fractional precision you specify
datetimeoffset(n)	8-10	Includes time zone offset from -14 to +14 (in EST, we are -5 from GMT, which is 0. By Comparison, Italy is +1 during Standard Time (+2 for DST))
Large Value data types		
varchar(max)	Same as varchar	Stores up to 2 gb of data - replaced text data type
nvarchar(max)	Same as nvarchar	Stores up to 2 gb of data - replaced ntext data type
varbinary(max)		Stores up to 2 gb of data - replaced image data type