

Part 25 – DateTime functions in SQL Server

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In this session we will learn

- DateTime data types
- DateTime functions
- Understand UTC time and Time Zone offset

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DateTime

Data type	Format	Range	Accuracy	Storage size (bytes)
time	hh:mm:ss[.nnnnnnn]	00:00:00.0000000 through 23:59:59.9999999	100 nanoseconds	3 to 5
date	YYYY-MM-DD	0001-01-01 through 9999-12-31	1 day	3
smalldatetime	YYYY-MM-DD hh:mm:ss	1900-01-01 through 2079-06-06	1 minute	4
datetime	YYYY-MM-DD hh:mm:ss[.nnn]	1753-01-01 through 9999-12-31	0.00333 second	8
datetime2	YYYY-MM-DD hh:mm:ss[.nnnnnnn]	0001-01-01 00:00:00.0000000 through 9999-12-31 23:59:59.9999999	100 nanoseconds	6 to 8
datetimeoffset	YYYY-MM-DD hh:mm:ss[.nnnnnnn] [+ -]hh:mm	0001-01-01 00:00:00.0000000 through 9999-12-31 23:59:59.9999999 (in UTC)	100 nanoseconds	8 to 10

DateTime

UTC stands for Coordinated Universal Time, based on which, the world regulates clocks and time. There are slight differences between GMT and UTC, but for most common purposes, UTC is synonymous with GMT.

Function	Date Time Format	Description
GETDATE()	2012-08-31 20:15:04.543	Commonly used
CURRENT_TIMESTAMP	2012-08-31 20:15:04.543	ANSI SQL equivalent to GETDATE
SYSDATETIME()	2012-08-31 20:15:04.5380028	More fractional seconds precision
SYSDATETIMEOFFSET()	2012-08-31 20:15:04.5380028 + 01:00	More fractional seconds precision + Time zone offset
GETUTCDATE()	2012-08-31 19:15:04.543	UTC Date and Time
SYSUTCDATETIME()	2012-08-31 19:15:04.5380028	UTC Date and Time, with More fractional seconds precision

Additional Resources

- PRAGIM Home Page:

- <http://www.PragimTech.com>

- Resources:

- ASP.NET Interview Questions
 - <http://www.VenkatASPInterview.Blogspot.com>
 - C# Interview Questions
 - <http://www.VenkatCSharpInterview.Blogspot.com>

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