

Part 26 –DateTime functions continued

Venkat
PRAGIM Technologies
kudvenkat@gmail.com
<http://csharp-video-tutorials.blogspot.com>

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In this session we will learn

- IsDate, Day, Month, Year and DateName
- A practical example of using these functions

Prerequisite

Part 25 - DateTime functions in SQL Server

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Date/Time Data Types in SQL Server

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

ISDATE

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

ISDATE() - Checks if the given value, is a valid date, time, or datetime. Returns 1 for success, 0 for failure.

```
--Examples
Select ISDATE('PRAGIM') -- returns 0
Select ISDATE(Getdate()) -- returns 1
Select ISDATE('2012-08-31 21:02:04.167') -- returns 1
Select ISDATE('2012-09-01 11:34:21.1918447') --returns 0
```

Note: For datetime2 values, IsDate returns ZERO.

Day, Month, Year

Day()- Returns the 'Day number of the Month' of the given date

```
--Examples:  
Select DAY(GETDATE()) -- Returns the current date day number of the month  
Select DAY('01/31/2012') -- Returns 31
```

Month()- Returns the 'Month number of the year' of the given date

```
--Examples:  
Select Month(GETDATE()) -- Returns the current date, Month number of the year  
Select Month('01/31/2012') -- Returns 1
```

Year()- Returns the 'Year number' of the given date

```
--Examples:  
Select Year(GETDATE()) -- Returns the current date the year number  
Select Year('01/31/2012') -- Returns 2012
```

DateName

DateName(DatePart, Date) - Returns a string, that represents a part of the given date. This function takes 2 parameters. The first parameter DatePart specifies, the part of the date, we want. The second parameter, is the actual date, from which we want the part of the Date.

--Examples:

```
Select DATENAME(Day, '2012-09-30 12:43:46.837') -- Returns 30
Select DATENAME(WEEKDAY, '2012-09-30 12:43:46.837') -- Returns Sunday
Select DATENAME(MONTH, '2012-09-30 12:43:46.837') -- Returns September
```

Id	Name	DateOfBirth
1	Sam	1980-12-30 00:00:00.000
2	Pam	1982-09-01 12:02:36.260
3	John	1985-08-22 12:03:30.370
4	Sara	1979-11-29 12:59:30.670

Name	DateOfBirth	Day	MonthNumber	MonthName	Year
Sam	1980-12-30 00:00:00.000	Tuesday	12	December	1980
Pam	1982-09-01 12:02:36.260	Wednesday	9	September	1982
John	1985-08-22 12:03:30.370	Thursday	8	August	1985
Sara	1979-11-29 12:59:30.670	Thursday	11	November	1979

```
Select Name, DateOfBirth, DATENAME(WEEKDAY, DateOfBirth) as [Day],
       Month(DateOfBirth) as MonthNumber,
       DATENAME(MONTH, DateOfBirth) as [MonthName],
       Year(DateOfBirth) as [Year]
From   tblEmployees
```

DatePart	Abbreviation
year	yy, yyyy
quarter	qq, q
month	mm, m
dayofyear	dy, y
day	dd, d
week	wk, ww
weekday	dw
hour	hh
minute	mi, n
second	ss, s
millisecond	ms
microsecond	mcs
nanosecond	ns
TZoffset	tz

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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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