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### Part 27 – DateTime functions continued

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## In this session we will learn

- DatePart, DateAdd and DateDiff functions in SQL Server
- A practical example of using these functions

#### Prerequisite

Part 25 - DateTime functions in SQL Server Part 26 - DateTime functions continued...

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## DatePart, DateAdd and DateDiff

**DatePart(DatePart, Date)** - Returns an integer representing the specified DatePart. This function is simialar to DateName(). DateName() returns nvarchar, where as DatePart() returns an integer.

```
--Examples:
Select DATEPART(weekday, '2012-08-30 19:45:31.793') -- returns 5
SELECt DATENAME(weekday, '2012-08-30 19:45:31.793') -- returns Thursday
```

DATEADD (datepart, NumberToAdd, date) - Returns the DateTime, after adding specified NumberToAdd, to the datepart specified of the given date.

```
Examples:

Select DateAdd(DAY, 20, '2012-08-30 19:45:31.793')

-- Returns 2012-09-19 19:45:31.793

Select DateAdd(DAY, -20, '2012-08-30 19:45:31.793')

-- Returns 2012-08-10 19:45:31.793
```

**DATEDIFF(datepart, startdate, enddate)** - Returns the count of the specified datepart boundaries crossed between the specified startdate and enddate.

```
--Examples:
Select DATEDIFF(MONTH, '11/30/2005','01/31/2006') -- returns 2
Select DATEDIFF(DAY, '11/30/2005','01/31/2006') -- returns 62
```

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DatePart	Abbreviation
year	уу, уууу
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



**Calculating Age** 

Id	Name	DateOfBirth		Id	Name	DateOfBirth	DOB
1	Sam	1980-12-30 00:00:00.000		1	Sam	1980-12-30 00:00:00.000	31 Years 8 Months 2 Days old
2	Pam	1982-09-01 12:02:36.260	<b>→</b>	2	Pam	1982-09-01 12:02:36.260	30 Years 0 Months 0 Days old
3	John	1985-08-22 12:03:30.370		3	John	1985-08-22 12:03:30.370	27 Years 0 Months 10 Days old
4	Sara	1979-11-29 12:59:30.670		4	Sara	1979-11-29 12:59:30.670	32 Years 9 Months 3 Days old

```
DECLARE @DOB datetime, @tmpdate datetime, @years int, @months int, @days int
SET @DOB = '10/08/1982'
SELECT @tmpdate = @DOB
SELECT @years = DATEDIFF(YEAR, @tmpdate, GETDATE()) -
                CASE
                    WHEN (MONTH (@DOB) > MONTH (GETDATE ())) OR
                    (MONTH (@DOB) = MONTH (GETDATE ()) AND DAY (@DOB) > DAY (GETDATE ()))
                    THEN 1 ELSE 0
                END
SELECT @tmpdate = DATEADD(YEAR, @years, @tmpdate)
SELECT @months = DATEDIFF(MONTH, @tmpdate, GETDATE()) -
                    WHEN DAY (@DOB) > DAY (GETDATE ())
                    THEN 1 ELSE 0
                END
SELECT @tmpdate = DATEADD(MONTH, @months, @tmpdate)
SELECT @days = DATEDIFF(DAY, @tmpdate, GETDATE())
SELECT @years as Years, @months as Months, @days as [Days]
```

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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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