Microsoft SQL Server provides a wide range of built-in date and time functions that can be used to manipulate date and time values. Here is a list of some of the most commonly used date functions in MSSQL:

1. **GETDATE()**: Returns the current date and time on the server.
2. **dateFormates** : all Formate of data
3. **Month(getdate())**:
4. **Year(getdate())**:
5. **Day(getdate());**
6. **Week: get week of year**
7. **dayOfWeek: get day of week (**DATENAME()**)**
8. **Time** : get time
9. **DATEADD()**: Adds a specified time interval to a date.
10. **DATEDIFF()**: Returns the difference between two dates in a specified unit of time.
11. **DATEPART()**: Returns a specified part of a date, such as the year, month, or day.
12. **DATENAME()**: Returns the name of a specified part of a date, such as the month name or day name.
13. **CONVERT()**: Converts a date or time value to a specified data type or format.
14. **FORMAT()**: Formats a date or time value to a specified format string.
15. **SWITCHOFFSET()**: Changes the time zone offset of a date and time value.
16. **SYSDATETIME()**: Returns the current system date and time with high precision.
17. **SYSUTCDATETIME()**: Returns the current system date and time in UTC format with high precision.
18. **TODATETIMEOFFSET()**: Converts a datetime value to a datetimeoffset value.
19. **EOMONTH()**: Returns the last day of the month for a specified date.
20. **DATEFROMPARTS()**: Constructs a date value from separate year, month, and day values.
21. **SMALLDATETIMEFROMPARTS()**: Constructs a small datetime value from separate year, month, day, hour, and minute values.

Sure, here are some examples of the most commonly used date functions in MSSQL:

1. **GETDATE()**:

SELECT GETDATE(); -- Returns the current date and time on the server

1. **DateFormates**

------ Date Formate ------

select convert(varchar(25),getdate(),1)

select convert(varchar(25),getdate(),2)

select convert(varchar(25),getdate(),3)

select convert(varchar(25),getdate(),4)

select convert(varchar(25),getdate(),5)

select convert(varchar(25),getdate(),6)

select convert(varchar(25),getdate(),7)

select convert(varchar(25),getdate(),9)

select convert(varchar(25),getdate(),10)

select convert(varchar(25),getdate(),11)

select convert(varchar(25),getdate(),12)

select convert(varchar(25),getdate(),13)

select convert(varchar(25),getdate(),14)

select convert(varchar(25),getdate(),20)

select convert(varchar(25),getdate(),21)

select convert(varchar(25),getdate(),22)

select convert(varchar(25),getdate(),23)

select convert(varchar(25),getdate(),24)

select convert(varchar(25),getdate(),25)

select convert(varchar(25),getdate(),100)

select convert(varchar(25),getdate(),101)

select convert(varchar(25),getdate(),102)

select convert(varchar(25),getdate(),103)

select convert(varchar(25),getdate(),104)

select convert(varchar(25),getdate(),105)

select convert(varchar(25),getdate(),106)

select convert(varchar(25),getdate(),107)

select convert(varchar(25),getdate(),108)

select convert(varchar(25),getdate(),109)

select convert(varchar(25),getdate(),110)

select convert(varchar(25),getdate(),111)

select convert(varchar(25),getdate(),112)

select convert(varchar(25),getdate(),113)

select convert(varchar(25),getdate(),114)

select convert(varchar(25),getdate(),121)

select convert(varchar(25),getdate(),126)

1. **Month**

select Month(getdate() )

select DateName(month,getdate() )

1. **Year**:

select year(getdate() )

1. **Day**:

select day(getdate() )

1. **Week**:

DATENAME(WEEK,GETDATE())

1. **dayofWeek**;

SELECT DATENAME(weekday, GETDATE())

SELECT DATEPART(weekday, GETDATE())

SELECT LEFT(DATENAME(weekday, GETDATE()), 3)

1. **Time**:

SELECT CONVERT(TIME, GETDATE())

SELECT FORMAT(GETDATE(), 'hh:mm:ss tt')

------ time Formate ------

SELECT CONVERT(VARCHAR(20), CONVERT(TIME, GETDATE()), 0)

SELECT CONVERT(VARCHAR(20), CONVERT(TIME, GETDATE()), 9)

SELECT CONVERT(VARCHAR(20), CONVERT(TIME, GETDATE()), 14)

SELECT CONVERT(VARCHAR(20), CONVERT(TIME, GETDATE()), 20)

SELECT CONVERT(VARCHAR(20), CONVERT(TIME, GETDATE()), 21)

SELECT CONVERT(VARCHAR(20), CONVERT(TIME, GETDATE()), 22)

SELECT CONVERT(VARCHAR(20), CONVERT(TIME, GETDATE()), 25)

SELECT CONVERT(VARCHAR(20), CONVERT(TIME, GETDATE()), 100)

SELECT CONVERT(VARCHAR(20), CONVERT(TIME, GETDATE()), 108)

SELECT CONVERT(VARCHAR(20), CONVERT(TIME, GETDATE()), 109)

SELECT CONVERT(VARCHAR(20), CONVERT(TIME, GETDATE()), 114)

SELECT CONVERT(VARCHAR(20), CONVERT(TIME, GETDATE()), 120)

SELECT CONVERT(VARCHAR(20), CONVERT(TIME, GETDATE()), 121)

SELECT CONVERT(VARCHAR(20), CONVERT(TIME, GETDATE()), 126)

1. **DATEADD()**:

-- Add 1 year to the current date

SELECT DATEADD(year, 1, GETDATE())

-- Add 1 mont to the current date

SELECT DATEADD(MONTH, 1, GETDATE())

-- Add 1 mont to the current date

SELECT DATEADD(MONTH, 1, GETDATE())

-- Subtract 30 days from the current date

SELECT DATEADD(day, -30, GETDATE())

-- Add 2 hours to a specific date

SELECT DATEADD(hour, 2, '2022-02-28 14:30:00')

-- Add 2 hours to Current Time 24 formate

SELECT DateAdd(HOUR,2,CONVERT(TIME, GETDATE()) )

-- Add 2 hours to Current Time 12 formate --- nulll

select FORMAT(DateAdd(HOUR,2,CONVERT(TIME, GETDATE()) ), 'hh:mm:ss tt')

SELECT CONVERT(VARCHAR(11), DateAdd(HOUR,2,CONVERT(TIME, GETDATE())), 100)-- by this ----

1. **DATEDIFF()**:

SELECT DATEDIFF(day, '2022-02-25', '2022-03-07'); -- Calculates the number of days between

--day

select DATEDIFF(day,'2019-2-25',getdate())

--year

select DATEDIFF(year,'2019-2-25',getdate()) as age

--month

select DATEDIFF(MONTH,'2019-2-25',getdate()) as age

--\_\_\_ variable \_\_\_

declare @dateofbirth date;

set @dateofbirth = '1996-10-28';

--\_\_\_ age \_\_\_\_

select DateDiff(Year,@dateofbirth,GETDATE())

--- Excute All at 1s

'2022-02-25' and '2022-03-07' and returns the result: 10

1. **DATEPART()**:

SELECT DATEPART(year, '2022-02-25'); -- Returns the year (2022) of the date '2022-02-25'

select DatePart(month,'2022-02-25')

1. **DATENAME()**:

SELECT DATENAME(month, '2022-02-25'); -- Returns the name of the month (February) of the date '2022-02-25'

1. **CONVERT()**:

SELECT CONVERT(varchar(10), GETDATE(), 101); -- Converts the current date and time to a string in the format 'MM/DD/YYYY'

1. **FORMAT()**:

**//date**

SELECT FORMAT(GETDATE(), 'dddd, MMMM dd, yyyy'); -- Formats the current date and time to a string in the format 'Monday, February 25, 2022'

**//time**

Format(GETDATE(),'hh:mm:ss tt'),

1. **SWITCHOFFSET()**:

SELECT SWITCHOFFSET(SYSDATETIMEOFFSET(), '-05:00'); -- Changes the time zone offset of the current date and time to -05:00 (Eastern Time) **SYSDATETIME()**:

1. **SYSUTCDATETIME()**:

SELECT SYSUTCDATETIME(); -- Returns the current system date and time in UTC format with high precision

1. **TODATETIMEOFFSET()**:

SELECT TODATETIMEOFFSET('2022-02-25 12:00:00', '-05:00'); -- Converts the date and time '2022-02-25 12:00:00' to a datetimeoffset value with a time zone offset of -05:00

1. **EOMONTH()**: EndofMonth

SELECT EOMONTH('2022-02-25'); -- Returns the last day of the month for the date '2022-02-25', which is '2022-02-28'

1. **DATEFROMPARTS()**:

SELECT DATEFROMPARTS(2022, 2, 25); -- Bind date value from the separate year, month, and day values, which is '2022-02-25'

1. **DATEDIFF\_BIG()**:

SELECT DATEDIFF\_BIG(day, '2022-02-25', '2022-03-07'); -- Calculates the number of days between '2022-02-25' and '2022-03-07' with high precision and returns the result: 10

1. **SMALLDATETIMEFROMPARTS()**:

SELECT SMALLDATETIMEFROMPARTS(2022, 2, 25, 12, 0); -- Constructs a small datetime value from the separate year, month, day, hour, and minute values Top of Form

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Bottom of Form

**Making CRUNT DATE CUSTOM FORMAT**

* By Default Format of Date (YYYY-MM-DD) -- year,month,day

Changing to --- day-mont-year

* select format(getdate() , 'ddd-MMMM-yyyy');

**\_\_\_\_\_\_\_ Calculate Accurate Age \_\_\_\_\_\_\_**

SELECT

DATEDIFF(YEAR, DOB, GETDATE()) AS Years,

DATEDIFF(MONTH, DOB, GETDATE()) % 12 AS Months,

ABS(DATEDIFF(DAY, DATEADD(MONTH, DATEDIFF(MONTH, DOB, GETDATE()), DOB), GETDATE())) AS Days

FROM Employee