

```

-- String Function
select shipname,shipaddress from sales.Orders

--LEN
select shipname,len(shipaddress) from sales.Orders

-- left
select shipname,left(shipaddress,4) from sales.Orders
-- right
select shipname,right(shipaddress,4) from sales.Orders

-- String Concat
select * from sales.Orders
select shipname+' '+shipaddress as NewAddress from sales.Orders
-- substring
select shipname+' '+shipaddress as NewAddress,SUBSTRING(shipname+' '+shipaddress,1,10)
as NewString from sales.orders
select shipname+' '+shipaddress as NewAddress,SUBSTRING(shipname+'
'+shipaddress,10,15) as NewString from sales.orders

--replace
select lastname,firstname,title from hr.Employees
select lastname,firstname,replace(title,'Sales','IT') from hr.Employees
-- Upper
select Upper(lastname),firstname,replace(title,'Sales','IT') from hr.Employees
-- lower
select Upper(lastname),lower(firstname),replace(title,'Sales','IT') from hr.Employees
--ltrim
select 'Hasan'+ ' ' Habib'
select 'Hasan'+ '+ltrim(' Habib')
--rtrim
select 'Hasan ' +'Habib'
select rtrim('Hasan ')+'Habib'
select 'This is a ' test '+'#'
select 'This is a '+ltrim(rtrim(' test '))+ '#'

-- replicate
select 'Sun'
select replicate('Sun ',5)

-- Aggregate
select * from Sales.OrderDetails
-- count

```

```
select orderid,count(productid) as NumberOfProduct from Sales.OrderDetails
group by orderid
```

```
-- sum
select orderid,sum(productid) as TotalNumberOfProduct from Sales.OrderDetails
group by orderid
```

```
-- sum
select orderid,sum(productid) as TotalNumberOfProduct from Sales.OrderDetails
group by orderid
```

```
-- Min
select orderid,min(productid) as MinimumNumberOfProduct from Sales.OrderDetails
group by orderid
```

```
-- Max
select orderid,max(productid) as MaximumNumberOfProduct from Sales.OrderDetails
group by orderid
```

```
-- Avg
select orderid,Avg(productid) as AverageNumberOfProduct from Sales.OrderDetails
group by orderid
```

```
--- date and time Function
```

```
select '20130101',getdate()
```

```
-- day wise datediff
```

```
select '20130101',getdate(), datediff(day,'20130101',getdate())
```

```
-- month wise datediff
```

```
select '20130101',getdate(), datediff(month,'20130101',getdate())
```

```
-- Year wise datediff
```

```
select '20130101',getdate(), datediff(year,'20130101',getdate())
```

```
select '20120101',getdate(), datediff(year,'20120101',getdate())
```

```
-- day wise dateadd
```

```
select '20130101',getdate(), dateadd(day, 1,getdate())
```

```
select '20130101',getdate(), dateadd(day, 1,'20130101')
```

```
-- Month wise dateadd
```

```
select '20130101',getdate(), dateadd(month, 1,'20130101')
```

```
-- year wise dateadd
```

```
select '20130101',getdate(), dateadd(year, 1,'20130101')
```

```
-- year wise dateadd old date
```

```
select '20130101',getdate(), dateadd(year, -1,'20130101')
```

```

-- month wise dateadd old date
select '20130101',getdate(), dateadd(month, -1,'20130101')
-- day wise dateadd old date
select '20130101',getdate(), dateadd(day, -1,'20130101')

--- find last date of a month
select '20130201', dateadd(day, 30,'20130201') -- not desired output
select '20130201', dateadd(day, 29,'20130201') -- not desired output
select '20130201', dateadd(day, 28,'20130201') -- not desired output
select '20130201', dateadd(day, 27,'20130201') -- not desired output
select '20130201', dateadd(month, 1,'20130201')-1 -- desired output
select '20130410', dateadd(month,1,dateadd(day,day('20130410')*-1,'20130410'))
---dateadd(month, 1,'20130410')-1
select '20130510', dateadd(month,1,dateadd(day,day('20130510')*-1,'20130510'))
select '20130610', dateadd(month,1,'20130610')-day(dateadd(month,1,'20130610'))
select '20130210', dateadd(month,1,'20130210')-day(dateadd(month,1,'20130210'))

-- eomonth
select '20130210',eomonth('20130210')
select '20130210',eomonth('20130510')
select '20130210',eomonth('20130610')
select '20130210',eomonth('20130610',-1)
select '20130210',eomonth('20130610',1)
select '20130210',dateadd(day,1,eomonth('20130610',-1))
select '20130210',dateadd(day,1,eomonth('20130510',-1))
select '20130210',dateadd(day,1,eomonth('20130210',-1))

select * from sales.Orders where year(orderdate)=2008
select * from sales.Orders where year(orderdate)=2008 and month(orderdate)=1 and
day(orderdate)=1
select * from sales.Orders where orderdate='20080101'

--- Format date with convert
select orderid,orderdate from sales.Orders where orderdate='20080101'
select orderid,orderdate,convert(varchar,orderdate,106) from sales.Orders where
orderdate='20080101'
select orderid,orderdate,convert(varchar,orderdate,108) from sales.Orders where
orderdate='20080101'
select orderid,orderdate,convert(varchar,orderdate,109) from sales.Orders where
orderdate='20080101'

select orderid,freight from sales.Orders
-- round

```

```
select orderid, freight, round(freight, 0) from sales.Orders
select orderid, freight, round(freight, 0) as RFreight from sales.Orders
where round(freight, 0) > 15 and round(freight, 0) < 25
order by RFreight
```

```
/*CASE
WHEN <exp1> IS NOT NULL THEN <exp1>
WHEN <exp2> IS NOT NULL THEN <exp2>
...
WHEN <expn> IS NOT NULL THEN <expn>
ELSE NULL
END */
select orderid, freight, round(freight, 0),
(case
  when round(freight, 0) <= 11 then 'very Low Freight'
  when round(freight, 0) >= 12 and round(freight, 0) < 16 then 'Low Freight'
  when round(freight, 0) >= 16 and round(freight, 0) < 25 then 'Mid Freight'
  when round(freight, 0) >= 25 and round(freight, 0) < 30 then 'High Freight'
  else 'very high Freight'
end
) as FreightChose from sales.Orders
```

```
-- iif
select orderid, freight, (iif(freight > 10, 'high', 'low')) as FreightStatus from sales.Orders
select orderid, freight, (iif(freight > 10, iif(freight > 20, 'very high', 'high'), 'low')) as FreightStatus from
sales.Orders
```

```
--choose
select choose(2, 'hasan', 'habib', 'kamal', 'Jamal')
select choose(4, 'hasan', 'habib', 'kamal', 'Jamal')
select choose(5, 'hasan', 'habib', 'kamal', 'Jamal')
```

```
-- Filtering using TOP
SELECT TOP 30 orderid, orderdate, custid, empid
FROM Sales.Orders
ORDER BY orderdate
```

```
SELECT TOP 10 orderid, orderdate, custid, empid
FROM Sales.Orders
ORDER BY orderdate desc
```

```
SELECT TOP 1 percent orderid, orderdate, custid, empid
```

```
FROM Sales.Orders
ORDER BY orderdate
```

```
SELECT TOP 10 percent orderid, orderdate, custid, empid
FROM Sales.Orders
ORDER BY orderdate
```

```
SELECT TOP 10 percent orderid, orderdate, custid, empid
FROM Sales.Orders
ORDER BY orderdate desc,orderid DESC
```

```
SELECT TOP 10 orderid, orderdate, custid, empid
FROM Sales.Orders
ORDER BY orderdate desc,orderid DESC
```

```
--Filtering Data with OFFSET-FETCH
SELECT orderid, orderdate, custid, empid
FROM Sales.Orders
ORDER BY orderdate DESC, orderid DESC
OFFSET 0 ROWS FETCH NEXT 10 ROWS ONLY;
```

```
-- skip first 10 rows show next 10 rows
SELECT orderid, orderdate, custid, empid
FROM Sales.Orders
ORDER BY orderdate DESC, orderid DESC
OFFSET 10 ROWS FETCH NEXT 10 ROWS ONLY;
```

```
-- skip first 10 rows show all rows
SELECT orderid, orderdate, custid, empid
FROM Sales.Orders
ORDER BY orderdate DESC, orderid DESC
OFFSET 10 rows
```

```
---- show first 10 rows
SELECT orderid, orderdate, custid, empid
FROM Sales.Orders
ORDER BY orderdate DESC, orderid DESC
offset 0 rows fetch first 10 rows only
```

```
---- skip first 2 rows and show first 10 rows
SELECT orderid, orderdate, custid, empid
FROM Sales.Orders
```

ORDER BY orderdate DESC, orderid DESC
offset 2 rows fetch first 10 rows only