

Data Types

| | |
|-----------------------------|-----------|
| Exact Numerics | |
| bit | decimal |
| tinyint | money |
| smallint | bit |
| int | numeric |
| bigint | |
| int | |
| Approximate Numerics | |
| float | real |
| Date and Time | |
| smalldatetime | timestamp |
| datetime | |
| Strings | |
| char | text |
| varchar | |
| Unicode Strings | |
| nchar | ntext |
| nvarchar | |
| Binary Strings | |
| binary | image |
| varbinary | |
| Miscellaneous | |
| cursor | table |
| sql_variant | xml |

Type Conversion

| |
|--------------------------------|
| CAST (expression AS datatype) |
| CONVERT (datatype, expression) |

Ranking Functions

| | |
|------------|------------|
| RANK | NTILE |
| DENSE_RANK | ROW_NUMBER |

Grouping (Aggregate) Functions

| | |
|-----------------|--------|
| AVG | MAX |
| BINARY_CHECKSUM | MIN |
| CHECKSUM | SUM |
| CHECKSUM_AVG | STDEV |
| COUNT | STDEVP |
| COUNT_BIG | VAR |
| GROUPING | VARP |

Table Functions

| | |
|--------|----------|
| ALTER | DROP |
| CREATE | TRUNCATE |

Date Functions

| |
|----------------------------------|
| DATEADD (datepart, number, date) |
| DATEDIFF (datepart, start, end) |
| DATENAME (datepart, date) |
| DATEPART (datepart, date) |
| DAY (date) |
| GETDATE () |
| GETUTCDATE () |
| MONTH (date) |
| YEAR (date) |

Dateparts

| | |
|-------------|----------|
| Year | yy, yyyy |
| Quarter | qq, q |
| Month | mm, m |
| Day of Year | dy, y |
| Day | dd, d |
| Week | wk, ww |
| Hour | hh |
| Minute | mi, n |
| Second | ss, s |
| Millisecond | ms |

Mathematical Functions

| | |
|---------|---------|
| ABS | LOG10 |
| ACOS | PI |
| ASIN | POWER |
| ATAN | RADIANS |
| ATN2 | RAND |
| CEILING | ROUND |
| COS | SIGN |
| COT | SIN |
| DEGREES | SQUARE |
| EXP | SQRT |
| FLOOR | TAN |
| LOG | |

String Functions

| | |
|------------|-----------|
| ASCII | REPLICATE |
| CHAR | REVERSE |
| CHARINDEX | RIGHT |
| DIFFERENCE | RTRIM |
| LEFT | SOUNDEX |
| LEN | SPACE |
| LOWER | STR |
| LTRIM | STUFF |
| NCHAR | SUBSTRING |
| PATINDEX | UNICODE |
| REPLACE | UPPER |
| QUOTENAME | |

Create a Stored Procedure

```
CREATE PROCEDURE name
    @variable AS datatype = value
AS
    -- Comments
    SELECT * FROM table
GO
```

Create a Trigger

```
CREATE TRIGGER name
ON
    table
FOR
    DELETE, INSERT, UPDATE
AS
    -- Comments
    SELECT * FROM table
GO
```

Create a View

```
CREATE VIEW name
AS
    -- Comments
    SELECT * FROM table
GO
```

Create an Index

```
CREATE UNIQUE INDEX name
ON
    table (columns)
```

Create a Function

```
CREATE FUNCTION name
    (@variable datatype(length))
RETURNS
    datatype(length)
AS
BEGIN
    DECLARE @return datatype(length)
    SELECT @return = CASE @variable
        WHEN 'a' THEN 'return a'
        WHEN 'b' THEN 'return b'
        ELSE 'return c'
    RETURN @return
END
```