1. **String function**
2. **CONCAT()** - concatenates two or more strings into a single string.

SELECT CONCAT('Hello ', 'World!') AS 'Greeting';

1. **LEN()** - returns the length of a string.

SELECT LEN('Hello World!') AS 'Length';

1. **LOWER()** - converts a string to lowercase

SELECT LOWER('Hello World!') AS 'Lowercase';

1. **UPPER()** - converts a string to uppercase.

SELECT UPPER('Hello World!') AS 'Uppercase';

1. **Proper Case** – not available , we can create cutom

declare @value varchar(25) = 'hello Pakistan hus Hana';

SELECT UPPER(SUBSTRING(@value, 1, 1)) + LOWER(SUBSTRING(@value, 2, LEN(@value) - 1)) as 'Proper Cass'

select UPPER(substring('Pakistan zindab' , 1,1))

+

Lower(substring('Pakistan zindab' , 2,len('Pakistan zindab')-1)) as properCase

--\_\_\_ get 1 chrector subString \_\_

select substring('Pakistan zindab' , 1,1)

--\_\_\_ get all Exapt 1 subString \_\_

select substring('Pakistan Zindab' ,2,len('Pakistan Zindab')-1 )

select substring('Pakistan Zindab' ,2,len('Pakistan Zindab')-1 )

1. **LEFT()** - returns a specified number of characters from the left side of a string.

SELECT LEFT('Hello World!', 5) AS 'LeftChars';

1. **RIGHT()** – Search the Position of Specific character.

SELECT RIGHT('Hello World!', 6) AS 'RightChars';

1. **REPLACE()** - replaces one string with another string.

SELECT REPLACE('Hello World!', 'World', 'Universe') AS 'NewString';

1. **charIndex ()** - returns a specified portion of a string.

CHARINDEX(‘search\_expression’, ‘expression’)

**Example\_1**

SELECT CHARINDEX('o', 'Hello, world!') AS 'Result';

**Example\_2**

select CHARINDEX(',','Muhammad,Boota'); search ,

select CHARINDEX(' ','Muhammad,Boota'); search space

1. **SUBSTRING()** - returns a specified String Value at position

-- substring('values' , stPoint, endPoint);

SELECT SUBSTRING('Hello World!', 7, 5) AS 'Substring';

***Examples 1.***  Extract 1st name from full Name

select SUBSTRING('Hello World!', 1, CharIndex(' ', 'Hello World') - 1 );

***Examples* 2.** Extract last name from full Name

select SUBSTRING('Hello World!',CharIndex(' ', 'Hello World') + 1 , len('Hello World') - CharIndex(' ', 'Hello World') );

***Examples* 3.** Full\_Name

declare @firstName varchar(25) = SUBSTRING('Hello World!', 1, CharIndex(' ', 'Hello World') - 1 );

declare @lastName varchar(25) = SUBSTRING('Hello World!',CharIndex(' ', 'Hello World') + 1 , len('Hello World') - CharIndex(' ', 'Hello World') );

select 'Hello Word' as fullName , @firstName as fName , @lastName as lName

1. **Numeric function**
2. ROUND() - rounds a numeric value to a specified precision.

SELECT ROUND(3.14159, 2) AS 'Rounded';

1. **Numeric function**
2. **Convert()** – Convert Decimal to Simplest values

* 1. String 🡪 Int

SELECT CONVERT(Int,’2.555’)

SELECT CONVERT(Float,’2.555’)

* 1. Date Time 🡪 string

select CONVERT(varchar(25),getDate())

select CONVERT(varchar(10),getDate())

1. **Cast()** - rounds a numeric value to a specified precision.
   1. String 🡪 Int

SELECT CAST('123' AS INT) AS Result;

-- Output: Result = 123

SELECT CAST('3.14' AS FLOAT) AS Result;

-- Output: Result = 3.14

* 1. dateTime 🡪 string

SELECT CAST(GETDATE() AS VARCHAR(20)) AS Result;

-- Output: Result = '2022-03-11 12:34:56'

SELECT CAST(GETDATE() AS VARCHAR(10)) AS Result;

-- Output: Result = '2022-03-11'

* 1. string 🡪 binary

SELECT CAST('This is a test' AS VARBINARY(50)) AS Result;

-- Output: Result = 0x5468697320697320612074657374