

## Practical No 2

**Aim:** Create an employee table to apply lowercase & uppercase.

Here's an example of an employee table that includes columns for applying lowercase and uppercase transformations to the employee names:

Employee ID	First Name	Last Name	Lowercase Name	Uppercase Name
1	John	Smith		

2	Jane Doe	jane	JANE	
---	----------	------	------	--

5	Mike Brown	mike	MIKE	
---	------------	------	------	--

In this table, the "First Name" and "Last Name" columns store the employee names as entered. The "Lowercase Name" column applies the lowercase transformation to the names using a formula or function in the database or spreadsheet software. Similarly, the "Uppercase Name" column applies the uppercase transformation to the names. These transformed columns can be used for various purposes, such as sorting, filtering, or displaying the names in a specific format.

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### Examples:-

#### SQL UPPER Function

We use SQL UPPER function to convert the characters in the expression into uppercase. It converts all characters into capital letters.

The syntax of SQL Upper function is:

```
1SELECT UPPER(expression) FROM [Source Data]
```

Let's use some examples for this function and view the output.

Example 1: Use UPPER function with all lower case characters in a single

word 1 `SELECT UPPER('sqlshack');`

It gives the following output.

```
SELECT UPPER('sqlshack');  
          ↓  
SQLSHACK
```

Example 2: Use UPPER function with all lower case characters in an expression

In this example, we use a string with Upper function, and it converts all letters in the string to uppercase.

1 `SELECT UPPER('learn sql server with sqlshack');`

Output: It converts all characters for a string.

```
SELECT UPPER('learn sql server with sqlshack');  
          ↓  
LEARN SQL SERVER WITH SQLSHACK
```

Example 3: Use an SQL UPPER function with mix case (combination of the lower and upper case) characters in an expression

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In this example, we have the same string from example 2 but with a combination of lower and upper case characters.

1 `SELECT UPPER('Learn SQL server with sqlshack');`

It converts all characters regardless of lower and upper case characters.

```
SELECT UPPER('Learn SQL server with sqlshack');  
          ↓  
LEARN SQL SERVER WITH SQLSHACK
```

Example 5: Use an SQL UPPER function with Select statement

We can use SQL UPPER function in a select statement as well and convert the required values to upper case.

In the following query, it creates an employee table and inserts record in it.

```
1 Create table Employee
2 (
3   Firstname varchar(20),
4   Lastname varchar(20),
5   Country varchar(20)
6 )
7
8 Insert into Employee values ('Rajendra','Gupta','India')
```

Perform a select query on this employee table, and it returns the records in the following format.

```
1 SELECT Firstname,
2   Lastname,
3   Country
4 FROM Employee;
```

	Firstname	Lastname	Country
1	Rajendra	Gupta	India

We want values in the country column to be in uppercase. Let's use the Upper function.

```
1
2 SELECT Firstname,
3   Lastname,
4   upper(Country) as COUNTRY
5 FROM Employee;
```

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In the output, we can see the uppercase value for a Country column.

	Firstname	Lastname	COUNTRY
1	Rajendra	Gupta	INDIA

`upper(Country) as COUNTRY`

## SQL LOWER function

It works opposite to the SQL UPPER function. It converts uppercase letters to lower case for the specified text or expression.

The syntax of SQL Lower function is

**1**SELECT Lower (Expression) FROM Source

Let's use some examples and view the output of this function.

Example 1: Use a LOWER function with all lower case characters in a single word

In this example, we use a lower function with all lower case characters. It does not perform any character case conversion for this.

**1**SELECT Lower('sqlshack');

```
SELECT Lower('sqlshack');
```

sqlshack

Example 2: Use SQL Lower function with all lower case characters in an expression

In this example, we have a string with all lower case characters. We get the same output because of all character already in lower case.

```
SELECT Lower('learn sql server with sqlshack');
```

learn sql server with sqlshack

Example 3: Use a LOWER function with mix case (combination of the lower and upper case) characters in an expression

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In this example, we have a string that contains both lower and upper case. SQL Lower

function ignores the lower characters and converts all uppercase characters into lowercase.

```
1 SELECT Lower('Learn SQL server with sqlshack');
```

```
SELECT Lower('Learn SQL server with sqlshack');
```



learn sql server with sqlshack

Example : Use a LOWER function with Select statement

In the following example, we use SQL Lower function to convert the [firstname] column values in lowercase.

```
1 SELECT Firstname,  
2 Lastname,  
3 lower(Country) as COUNTRY  
4 FROM Employee;
```

	Firstname	Lastname	COUNTRY
1	Rajendra	Gupta	india

Example 5: Use the LOWER function in a variable

We can use a lower function with a variable similar to an upper function. Let's use the same query with lower function.

```
1 DECLARE @text VARCHAR(30);  
2 SET @text = 'This is a sample text';  
3 SELECT @text,  
4 LOWER(@text) AS Lowercase;
```

	[No column name]	Lowercase
1	This is a sample text	this is a sample text

Convert the first letter of each word in Uppercase