

# LOWER Function

All alphabetical characters in the input value are converted to lowercase in the output value.

Input can be a column reference or a string literal.

**Wrangle vs. SQL:** This function is part of Wrangle , a proprietary data transformation language. Wrangle is not SQL. For more information, see *Wrangle Language*.

## Basic Usage

### Column reference example:

```
lower(MyName)
```

**Output:** Returns the string value from the `MyName` column in lowercase.

### String literal example:

```
lower('Hello, World')
```

**Output:** The string `hello, world` is returned.

## Syntax and Arguments

```
lower(column_string)
```

| Argument      | Required? | Data Type | Description  |
|---------------|-----------|-----------|--|
| column_string | Y         | string    | Name of the column or string literal to be applied to the function |

For more information on syntax standards, see *Language Documentation Syntax Notes*.

### column\_string

Name of the column or string constant to be converted.

- Missing string or column values generate missing string results.
- String constants must be quoted ('Hello, World').
- Multiple columns and wildcards are not supported.

### Usage Notes:

| Required? | Data Type                          | Example Value |
|-----------|------------------------------------|---------------|
| Yes       | String literal or column reference | myColumn      |

## Examples

**Tip:** For additional examples, see *Common Tasks*.

## Example - uppercase, lowercase, propercase functions

### Source:

In the following example, you can see a number of input values in the leftmost column. The output columns are blank.

| input  | uppercase | lowercase | propercase |
|--|-----------|-----------|------------|
| AbCdEfGh IjKlMnO                             |           |           |            |
| go West, young man!                          |           |           |            |
| Oh, *(\$%(&! That HURT!                      |           |           |            |
| A11 w0rk and n0 0play makes Jack a dull boy. |           |           |            |

### Transformation:

To generate uppercase, lowercase, and propercase values in the output columns, use the following transforms:

|                            |                          |
|----------------------------|--------------------------|
| <b>Transformation Name</b> | Edit column with formula |
| <b>Parameter: Columns</b>  | uppercase                |
| <b>Parameter: Formula</b>  | UPPER(input)             |

|                            |                          |
|----------------------------|--------------------------|
| <b>Transformation Name</b> | Edit column with formula |
| <b>Parameter: Columns</b>  | lowercase                |
| <b>Parameter: Formula</b>  | LOWER(input)             |

|                            |                          |
|----------------------------|--------------------------|
| <b>Transformation Name</b> | Edit column with formula |
| <b>Parameter: Columns</b>  | propercase               |
| <b>Parameter: Formula</b>  | PROPER(input)            |

### Results:

| input  | uppercase                                    | lowercase                                    | propercase                                   |
|--|--|--|--|
| AbCdEfGh IjKlMnO                             | ABCDEFGH IJKLMNO                             | abcdefgh ijklmno                             | Abcdefgh Ijklmno                             |
| go West, young man!                          | GO WEST, YOUNG MAN!                          | go west, young man!                          | Go West, Young Man!                          |
| Oh, *(\$%(&! That HURT!                      | OH, *(\$%(&! THAT HURT!                      | oh, *(\$%(&! that hurt!                      | Oh, *(\$%(&! That Hurt!                      |
| A11 w0rk and n0 0play makes Jack a dull boy. | A11 WORK AND NO 0PLAY MAKES JACK A DULL BOY. | a11 w0rk and n0 0play makes jack a dull boy. | A11 W0rk And NO 0play Makes Jack A Dull Boy. |