# DAX TEXT FUNCTIONS

## UPPER

Definition: Converts all letters in a string to uppercase.
Syntax: UPPER(<text>)
Parameters:

- <text>: Column or string to convert.
  Example:
  UpperDay = UPPER(RawPizzaSales[Day])
  *Result:* Converts "Monday" to "MONDAY".

## LOWER

Definition: Converts all letters in a string to lowercase.
Syntax: LOWER(<text>)
Parameters:

- <text>: Column or string to convert.
  Example:
  LowerCategory = LOWER(RawPizzaSales[Category])
  *Result:* Converts "Veg" to "veg".

## CONCATENATE

Definition: Joins two text strings into one.
Syntax: CONCATENATE(<text1>, <text2>)
Parameters:

- <text1>, <text2>: Columns or strings to concatenate.
  Example:
  PizzaLabel = CONCATENATE(RawPizzaSales[PizzaName], RawPizzaSales[Category])
  *Result:* "Farmhouse" + "Veg" = "FarmhouseVeg"
  For more fields, use: RawPizzaSales[PizzaName] & " (" & RawPizzaSales[Category] & ")" → "Farmhouse (Veg)".

## LEN

Definition: Returns the number of characters in a string.
Syntax: LEN(<text>)
Parameters:

- <text>: Column or string to calculate length.
  Example:
  PizzaNameLength = LEN(RawPizzaSales[PizzaName])
  *Result:* For "Farmhouse", result is 9.

**LEFT**

Definition: Returns the specified number of characters from the start of a string.
Syntax: LEFT(<text>, <num_chars>)
Parameters:

- <text>: Column or string.
- <num_chars>: Number of characters to extract.
  Example:
  PizzaPrefix = LEFT(RawPizzaSales[PizzaName], 4)
  *Result:* For "Farmhouse", result is "Farm".

**RIGHT**

Definition: Returns the specified number of characters from the end of a string.
Syntax: RIGHT(<text>, <num_chars>)
Parameters:

- <text>: Column or string.
- <num_chars>: Number of characters to extract.
  Example:
  PizzaSuffix = RIGHT(RawPizzaSales[PizzaName], 4)
  *Result:* For "Farmhouse", result is "ouse".

**MID**

Definition: Returns characters from the middle of a string, given a starting position and length.
Syntax: MID(<text>, <start_num>, <num_chars>)
Parameters:

- <text>: Column or string.

- <start_num>: Position to start.
- <num_chars>: Number of characters.
  Example:
  PizzaMid = MID(RawPizzaSales[PizzaName], 2, 3)
  *Result:* For "Farmhouse", result is "arm".

**REPLACE**

Definition: Replaces part of a string with another substring, based on character location.
Syntax: REPLACE(<old_text>, <start_num>, <num_chars>, <new_text>)
Parameters:

- <old_text>: Original string or column.
- <start_num>: Start position.
- <num_chars>: How many characters to replace.
- <new_text>: Text for replacement.
  Example:
  ReplacedPizza = REPLACE(RawPizzaSales[PizzaName], 1, 4, "Test")
  *Result:* For "Farmhouse", result is "Testhouse".

**SUBSTITUTE**

Definition: Replaces existing text with new text in a string.
Syntax: SUBSTITUTE(<text>, <old_text>, <new_text>[, <instance_num>])
Parameters:

- <text>: Column or string.
- <old_text>: Text to find.
- <new_text>: Replacement.
- <instance_num>: (Optional) Which occurrence to replace.
  Example:
  VegToGreen = SUBSTITUTE(RawPizzaSales[Category], "Veg", "Green")
  *Result:* For "Veg", result is "Green".

**SEARCH**

Definition: Returns the starting position of one text string within another (case-insensitive).
Syntax: SEARCH(<find_text>, <within_text>[, <start_num>])
Parameters:

- <find_text>: Substring to find.
- <within_text>: Column or string to search in.
- <start_num>: (Optional) Where to start.
  Example:
  DoublePos = SEARCH("Double", RawPizzaSales[PizzaName], 1)
  *Result:* For "Double Cheese", result is 1; for "Farmhouse", will return error or blank.

| Month | Day | Pizza_Code | Pizza_Name | Category | Sales | Price_USD | Upper | Lower | Concat | left | right | len | Mid | Replace | Substitute | search |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January | Sunday | 3 | Farmhouse | Veg | 103 | 7 | SUNDAY | veg | FarmhouseVeg | Farm | house | 9 | mhous | Test | Green | 10 |
| January | Sunday | 5 | Double Cheese | Veg | 68 | 10 | SUNDAY | veg | Double CheeseVeg | Doub | heese | 13 | ble C | Test | Green | 14 |
| January | Sunday | 4 | Deluxe | Non-Veg | 61 | 15 | SUNDAY | non-veg | DeluxeNon-Veg | Delu | eluxe | 6 | uxe | Test | Non-Green | 11 |
| January | Sunday | 3 | Farmhouse | Veg | 114 | 7 | SUNDAY | veg | FarmhouseVeg | Farm | house | 9 | mhous | Test | Green | 10 |
| January | Sunday | 3 | Farmhouse | Veg | 67 | 7 | SUNDAY | veg | FarmhouseVeg | Farm | house | 9 | mhous | Test | Green | 10 |
| January | Monday | 5 | Double Cheese | Veg | 91 | 10 | MONDAY | veg | Double CheeseVeg | Doub | heese | 13 | ble C | Test | Green | 14 |
| January | Monday | 5 | Double Cheese | Veg | 103 | 10 | MONDAY | veg | Double CheeseVeg | Doub | heese | 13 | ble C | Test | Green | 14 |
| January | Monday | 4 | Deluxe | Non-Veg | 133 | 15 | MONDAY | non-veg | DeluxeNon-Veg | Delu | eluxe | 6 | uxe | Test | Non-Green | 11 |
| January | Tuesday | 3 | Farmhouse | Veg | 87 | 7 | TUESDAY | veg | FarmhouseVeg | Farm | house | 9 | mhous | Test | Green | 10 |
| January | Tuesday | 3 | Farmhouse | Veg | 82 | 7 | TUESDAY | veg | FarmhouseVeg | Farm | house | 9 | mhous | Test | Green | 10 |
| January | Tuesday | 5 | Double Cheese | Veg | 93 | 10 | TUESDAY | veg | Double CheeseVeg | Doub | heese | 13 | ble C | Test | Green | 14 |
| January | Tuesday | 2 | Chicago | Non-Veg | 150 | 20 | TUESDAY | non-veg | ChicagoNon-Veg | Chic | icago | 7 | cago | Test | Non-Green | 12 |
| January | Wednesday | 3 | Farmhouse | Veg | 129 | 7 | WEDNESDAY | veg | FarmhouseVeg | Farm | house | 9 | mhous | Test | Green | 10 |
| January | Wednesday | 3 | Farmhouse | Veg | 68 | 7 | WEDNESDAY | veg | FarmhouseVeg | Farm | house | 9 | mhous | Test | Green | 10 |
| January | Thursday | 2 | Chicago | Non-Veg | 81 | 20 | THURSDAY | non-veg | ChicagoNon-Veg | Chic | icago | 7 | cago | Test | Non-Green | 12 |
| January | Thursday | 1 | Margherita | Veg | 81 | 25 | THURSDAY | veg | MargheritaVeg | Marg | erita | 10 | gheri | Test | Green | 11 |
| January | Thursday | 2 | Chicago | Non-Veg | 51 | 20 | THURSDAY | non-veg | ChicagoNon-Veg | Chic | icago | 7 | cago | Test | Non-Green | 12 |