

Chapter-4 Working with String Functions in MS Excel

String functions in MS Excel allow you to manipulate, analyze, and extract information from text data. These functions are particularly useful for cleaning and processing text-based data.

1. Commonly Used String Functions

Function	Description	Example	Result
LEN	Returns the number of characters in a string (including spaces).	=LEN("Excel")	5
TRIM	Removes all extra spaces from text, leaving single spaces between words.	=TRIM(" Hello World ")	"Hello World"
UPPER	Converts all characters to uppercase.	=UPPER("Excel")	"EXCEL"
LOWER	Converts all characters to lowercase.	=LOWER("Excel")	"excel"
PROPER	Capitalizes the first letter of each word.	=PROPER("hello world")	"Hello World"
CONCATENATE	Joins multiple strings into one (use CONCAT in newer versions).	=CONCATENATE("Hello", " ", "World")	"Hello World"
CONCAT	Similar to CONCATENATE but supports ranges.	=CONCAT(A1:A3)	Combines A1, A2, A3.
TEXT	Formats a number and converts it to text.	=TEXT(1234.5, "\$#,##0.00")	"\$1,234.50"

2. Extracting Text

These functions are used to extract specific parts of a string.

Function	Description	Example	Result
LEFT	Extracts the first n characters from a string.	=LEFT("Excel", 2)	"Ex"
RIGHT	Extracts the last n characters from a string.	=RIGHT("Excel", 2)	"el"
MID	Extracts characters from the middle of a string, starting at a specified position.	=MID("Excel", 2, 3)	"xce"

TEXTLEFT	Combines the functionality of LEFT and TEXT to extract specific patterns (Office 365).	=TEXTLEFT (A1, "***[pattern]**")	
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3. Searching and Replacing Text

These functions help locate or replace specific text.

Function	Description	Example	Result
FIND	Returns the starting position of a substring (case-sensitive).	=FIND("c", "Excel")	3
SEARCH	Returns the starting position of a substring (case-insensitive).	=SEARCH("c", "Excel")	3
REPLACE	Replaces part of a string with another string.	=REPLACE("Excel", 2, 3, "mpl")	"Empl"
SUBSTITUTE	Replaces occurrences of a specific substring.	=SUBSTITUTE("2023-01-01", "-", "/")	"2023/01/01"

4. Splitting and Joining Text

Useful for breaking or combining text strings.

Function	Description	Example	Result
TEXTSPLIT	Splits text into multiple cells (Office 365).	=TEXTSPLIT("a,b,c", ",")	"a" "b" "c"
TEXTJOIN	Combines text from multiple cells with a delimiter.	=TEXTJOIN(",", TRUE, A1:A3)	"a,b,c"
CONCAT	Concatenates strings without a delimiter.	=CONCAT(A1:A3)	Combines A1, A2, A3.

5. Case Conversion Functions

These change the case of text strings.

Function	Description	Example	Result
UPPER	Converts text to uppercase.	=UPPER("excel")	"EXCEL"
LOWER	Converts text to lowercase.	=LOWER("EXCEL")	"excel"
PROPER	Capitalizes the first letter of each word.	=PROPER("hello world")	"Hello World"

6. Advanced Text Manipulation

For more complex text handling.

Function	Description	Example	Result
VALUE	Converts a text string into a number.	=VALUE ("1234")	1234
TEXT	Converts a number into a formatted string.	=TEXT (1234, "0.00")	"1234.00"
CODE	Returns the numeric code of a character.	=CODE ("A")	65
CHAR	Converts a numeric code into a character.	=CHAR (65)	"A"

Tips for Working with String Functions

1. **Combine Functions:** Use multiple functions together for advanced tasks.
 - o Example: Extract the domain from an email address:

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=MID (A1, FIND ("@", A1)+1, LEN (A1))
```

2. **Dynamic Ranges:** Use LEN, FIND, and other functions to work with dynamic text ranges.
3. **Use Wildcards:** Use * and ? for searching patterns with SEARCH or FIND.