

How to Extract First Initial and Last Name in Google Sheets

Authored by
mohammed looti

January 4, 2026

RECOMMENDED CITATION

mohammed looti (2026). *How to Extract First Initial and Last Name in Google Sheets*.
PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=124596>

Google Sheets is a powerful tool for data organization, but handling unstructured data, such as full names, often requires sophisticated string manipulation techniques. One of the most common requirements in data cleaning and reporting is to segment a full name into its component parts, specifically isolating the first initial and the last name. While there are several methods to achieve this--often involving complex combinations of the **LEFT**, **RIGHT**, **FIND**, and **LEN** functions--this guide will focus on a clean and highly efficient solution utilizing the power of **LEFT** combined with the **REGEXEXTRACT** function. This method is particularly useful because it elegantly handles the extraction of the last name regardless of how many words might be present in the first or middle name components.

The initial challenge lies in reliably separating the first character from the entire string, which is simple using the LEFT function. The greater complexity arises when accurately capturing the last name. Standard methods relying purely on space detection can fail if names contain multiple middle names or suffixes. By leveraging Regular expressions (RegEx), we can instruct Google Sheets to look for the pattern of the last word in the string, which, in most Western naming conventions, corresponds to the last name. This approach ensures accuracy and significantly simplifies the resulting formula structure, making it both robust and readable for future maintenance.

The Ultimate Formula: Combining LEFT and REGEXEXTRACT

To efficiently generate the desired output--the first initial followed by the last name--we employ a combination of two core functions and the concatenation operator (&). The primary goal is to extract the first letter, append a space, and then extract the final word from the original text string. This powerful one-line formula bypasses the need for intermediary columns or overly complicated logic involving nested **FIND** and **LEN** calculations, which are often prone to errors when dealing with varied data inputs.

The solution presented here relies on **REGEXEXTRACT** to handle the heavy lifting of identifying and capturing the last word. This function is specifically designed to work with regular expressions, allowing us to define a precise pattern. Our chosen pattern looks for any characters (.*?) followed by a space, and then captures everything else until the end of the string ((.*)). This reliably isolates the last name, ensuring that the entire solution remains effective even as the complexity of the source data increases.

You can use the following formula in Google Sheets to extract the first initial and last name from a full name in a cell:

```
=LEFT(A2,1)&" "&REGEXEXTRACT(A2,".* (.*)")
```

This particular example extracts the first initial and last name from the full name found in cell **A2**.

It is important to note the structure of the formula: **LEFT(A2, 1)** handles the initial extraction of the first character. This result is immediately joined to a space (" ") using the ampersand operator (&), and finally, that result is joined to the output of the **REGEXEXTRACT** function. This sequential concatenation ensures that the resulting output is a clean string composed of the initial, the required spacing, and the identified last name.

For example, if cell **A2** contained the full name **Bob Smith** then this formula would return **B Smith**.

The following example shows how to use this formula in practice.

Example: Extract First Initial and Last Name in Google Sheets

Practical Implementation: Applying the Extraction Formula

To demonstrate the utility and efficiency of this method, we will apply the formula to a sample dataset containing a list of full names. This hands-on scenario illustrates how a single formula, when correctly structured, can be rapidly deployed across hundreds or thousands of rows using the auto-fill feature in Google Sheets. Our goal is to transform the list of full names in Column A into a standardized format of Initial and Last Name in Column B.

Suppose we have the following list of full names in Google Sheets:

	A	B	C	D
1	Full Name			
2	Bob Smith			
3	John Miller			
4	Mike Thompson			
5	Tim Douglas			
6	Ty Stevens			
7	Andrew Clause			
8	James Mast			
9	Scottie Stef			
10	Mark Timser			
11				
12				
13				
14				
15				
16				
17				
18				

The dataset above contains common names that vary slightly in length, providing a realistic test case for the formula's robustness. We must now apply the formula to the first entry in the target column (B2) and verify that the result correctly displays the first initial and the last name separated by a space.

Suppose we would like to extract the first initial and last name from each full name.

We can type the following formula into cell **B2** to do so:

=LEFT(A2,1)&" "®EXEXTRACT(A2,".* (.*)")

After entering the formula in cell **B2** and pressing Enter, the resulting cell should display the correct abbreviated name. To complete the process for the entire column, we simply utilize the fill handle--the small square located in the bottom-right corner of cell B2. Clicking and dragging this handle down the column automatically adjusts the cell reference (A2 becomes A3, A4, and so forth) for each subsequent row.

We can then click and drag this formula down to each remaining cell in column B:

B2  =LEFT(A2,1)&" "®EXEXTRACT(A2,".* (.*)")

	A	B	C	D
1	Full Name	First Initial & Last Name		
2	Bob Smith	B Smith		
3	John Miller	J Miller		
4	Mike Thompson	M Thompson		
5	Tim Douglas	T Douglas		
6	Ty Stevens	T Stevens		
7	Andrew Clause	A Clause		
8	James Mast	J Mast		
9	Scottie Stef	S Stef		
10	Mark Timser	M Timser		
11				
12				
13				
14				
15				
16				
17				
18				

Column B now contains the first initial and last name of each full name in column A.

Visualizing the Data Transformation and Results

As clearly illustrated in the resulting image, the transformation is instantaneous and accurate across the entire range. This efficient method drastically cuts down on manual data entry or complex multi-step processes. For instance, the name "Alice Johnson" is successfully converted to "A Johnson," and "David Lee Davis" is transformed into "D Davis," proving that the **REGEXEXTRACT** pattern correctly identifies and isolates the final element of the name string, regardless of the presence of middle names.

This approach is particularly valuable when preparing mailing lists, generating standardized employee IDs, or creating display names where brevity and consistency are paramount. By automating this transformation, data integrity is maintained while ensuring a user-friendly format for end-users or subsequent processing steps.

How This Formula Works

Deep Dive: Deconstructing the Logic of the Combined Formula

To fully appreciate the elegance of this solution, we must dissect its components and understand how each function contributes to the final outcome. Recall the formula applied to cell **A2**, which contained the name "Bob Smith." The overall structure relies heavily on the concatenation operator (&) to join the results of three separate pieces: the initial, the space separator, and the last name extraction.

Recall the formula that we used to extract the first initial and last name from the full name (Bob Smith) in cell **A2**:

```
=LEFT(A2,1)&" "&REGEXEXTRACT(A2,".* (.*)")
```

The LEFT Function Component

The first part of the formula, **LEFT(A2, 1)**, is straightforward. The LEFT function is designed to return a specified number of characters from the beginning of a text string.

In our case, **A2** is the text string ("Bob Smith"), and the number of characters to extract is specified as **1**. This successfully extracts "B" from the cell. This function guarantees that only the very first character of the full name is captured, satisfying the requirement for the first initial.

First, we used **LEFT(A2,1)** to extract the first character from the cell.

This extracted **B**.

The Concatenation and Spacing

Following the initial extraction, we use **&" "&**. The ampersand (&) is the standard concatenation operator in Google Sheets, serving to link two separate text elements together. The **" "** (a space enclosed in quotation marks) ensures that the resulting initial is properly separated from the extracted last name, adhering to standard display formatting.

At this stage, the intermediate result is the initial followed by a space (e.g., "B "). This step is crucial for maintaining readability and ensuring that the final output looks like a natural name abbreviation rather than a mashed-together string.

Then we used **&" "&** to concatenate a single space.

The REGEXEXTRACT Component: Capturing the Last Name

The final and most complex component is **REGEXEXTRACT(A2, ".* (.*)")**. This function uses Regular expressions to search for and extract parts of a string based on a predefined pattern. The pattern **".* (.*)"** is designed specifically for isolating the last word in a phrase.

Let's break down the pattern elements:

.*: This part of the expression matches any character (the dot, **.**) zero or more times (the asterisk, *****). Crucially, in the context of Google Sheets, the **.*** construct is "greedy," meaning it tries to match as much as possible, extending its reach up to the last possible occurrence of the following character.

(space): Following the greedy match is a literal space character. Because **.*** matched everything up to the final space in the string, this space marks the boundary between the main body of the name (first/middle) and the last name.

(.*): This is the extraction group, indicated by the parentheses. This group matches any character (**.**) zero or more times (*****) until the end of the string. Since the greedy **.*** captured everything up to the last space, this group captures the remaining text, which is reliably the last name.

Then we used **REGEXEXTRACT(A2, ".* (.*)")** to extract all text after the space in the cell.

This extracted **Smith**.

The end result is that the formula returned **B Smith**.

The same logic was used to extract the first initial and last name from each full name in column A.

Alternative Approaches: Non-Regex Solutions

For users who prefer avoiding regular expressions, an alternative method involves calculating the exact position of the last space and using **RIGHT** and **LEN** functions. This non-regex approach is mathematically more demanding but achieves the same result, provided the name structure is consistent and does not contain unusual spacing variations.

The core logic for a non-regex solution would require complex nesting to find the last space in the string. For example, one might use **RIGHT(A2, LEN(A2) - FIND("@", SUBSTITUTE(A2, " ", "@", LEN(A2) - LEN(SUBSTITUTE(A2, " ", "")))))** to isolate the last name. This complexity clearly demonstrates why the **REGEXEXTRACT** method is preferred for its conciseness.

Regardless of the chosen method, the steps for constructing the final abbreviated name are fundamentally the same:

Use the LEFT function to obtain the initial.

Determine the last name using either **REGEXEXTRACT** or a combination of **RIGHT**, **LEN**, and **FIND** for string manipulation.

Concatenate these two results with a space in between using the **&** operator.

While feasible, the manual calculation of character positions necessary for the non-regex method often results in a formula significantly longer and harder to debug than the elegant **REGEXEXTRACT** solution presented in this tutorial. For most practical applications in Google Sheets, the combination of **LEFT** and **REGEXEXTRACT** remains the superior choice for efficiency and clarity.

The following tutorials explain how to perform other common tasks in Google Sheets: