

Chapter-5 Implementing Column Splitting in Power BI

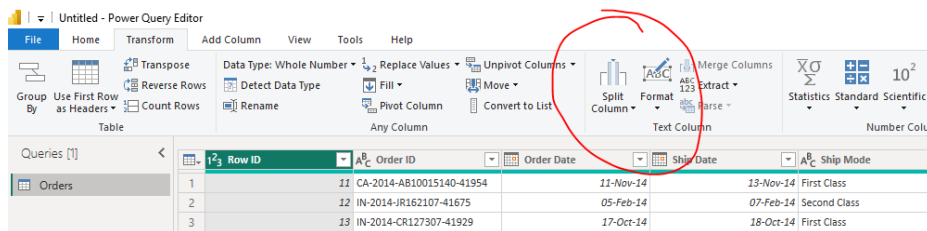
Column splitting in Power BI involves dividing a single column into multiple columns based on a delimiter, fixed width, or other criteria. This task is performed in the **Power Query Editor** and is often used for cleaning and transforming data before analysis.

Why Split Columns?

- Extract first and last names from a "Full Name" column.
 - Separate a "Location" column into "City" and "State."
 - Divide a combined "Date-Time" column into "Date" and "Time."
-

Steps to Split Columns in Power BI

1. **Load Data into Power Query Editor**
 - Open Power BI Desktop.
 - Import your dataset and click **Transform Data** to open the Power Query Editor.
2. **Select the Column to Split**



- Choose the column you want to split.
3. **Use the Split Column Feature**
 - In the **Transform** tab, click **Split Column** in the ribbon.
 - Choose one of the following methods:
 - **By Delimiter**
 - **By Number of Characters**
 - **By Positions**
 - **By Lowercase to Uppercase**
 - **By Digit to Non-Digit** or vice versa
4. **Configure Splitting Options**

- **By Delimiter:**
 - Select a predefined delimiter (e.g., comma, space) or specify a custom delimiter.
 - Choose whether to split at the first occurrence, last occurrence, or each occurrence of the delimiter.
 - **By Number of Characters:**
 - Specify the number of characters to use for splitting.
 - **By Positions:**
 - Enter specific positions where the column should be split.
5. **Review the Results**
- After splitting, the column will be divided into two or more new columns (e.g., "Column1.1," "Column1.2").
 - Rename the new columns as needed.
6. **Apply Changes**
- Click **Close & Apply** to load the transformed data into Power BI.
-

Example: Splitting a Full Name Column

Original Column:

Full Name
Sandeep Doe
Jane Smith

Steps:

1. Select the **Full Name** column.
2. Click **Split Column** → **By Delimiter** → Choose a space () as the delimiter.
3. Split at each occurrence.
4. Rename the resulting columns to "First Name" and "Last Name."

Result:

First Name	Last Name
Sandeep	Doe
Jane	Smith

Advanced Column Splitting with DAX

Although column splitting is generally done in Power Query, it can also be implemented dynamically in Power BI using **DAX (Data Analysis Expressions)**:

1. Go to the **Data View**.

2. Click **New Column** and use formulas to split text:

- Extract the first name:

First Name = LEFT(TableName[Full Name], FIND(" ", TableName[Full Name]) - 1)

- Extract the last name:

Last Name = RIGHT(TableName[Full Name], LEN(TableName[Full Name]) - FIND(" ", TableName[Full Name]))

Best Practices for Column Splitting

1. **Choose the Right Tool**

- Use Power Query for one-time transformations.
- Use DAX for dynamic and calculated splits post-load.

2. **Handle Null Values**

- Replace null or empty values in the column before splitting to avoid errors.

3. **Check Delimiters Carefully**

- Ensure the delimiter is consistent throughout the column. For example, if some rows use a comma and others use a space, preprocessing may be required.

4. **Review and Rename New Columns**

- Rename the resulting columns with meaningful names to maintain clarity.
-

Troubleshooting Common Issues

1. **Inconsistent Delimiters**

- Use Power Query's **Replace Values** to standardize delimiters before splitting.

2. **Unexpected Splitting**

- Ensure there are no extra spaces, special characters, or unexpected delimiters in the column.

3. **Performance Concerns**

- For large datasets, splitting in Power Query is more efficient than using DAX.

By splitting columns effectively, you can restructure your dataset for better analysis and ensure the data is clean and ready for visualizations.