

1. How does the “Merge” operation in Power Query differ from the “Append” operation, and in what situations would you use each one?

Answer:

- **Merge** combines **columns** from two or more tables based on a **matching key** (like joining tables in SQL). It’s used when you want to bring related data together side-by-side — for example, matching customers with their orders using a Customer ID.
 - **Append** combines **rows** from two or more tables that have **the same column structure**, stacking them on top of each other (like a UNION). It’s used when you want to put datasets from different time periods or sources into one table.
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2. What steps would you take in Power Query to split a single “Full Name” column into two separate columns, such as “First Name” and “Last Name”?

Answer:

1. Select the **“Full Name”** column.
 2. Go to the **Home** or **Transform** tab.
 3. Choose **Split Column → By Delimiter**.
 4. Select **Space** as the delimiter.
 5. Choose **At the left-most delimiter** to separate the first and last names. This creates two new columns: **First Name** and **Last Name**.
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3. In what scenarios would you use the “Pivot Columns” feature in Power Query, and what does it do to your dataset?

Answer:

The **Pivot Columns** feature transforms **row values into column headers**, turning long data into a wider table format. It’s useful when you want to summarize or reorganize data for reporting.

Example:

Transforming a table with rows for each month into a summary where each month becomes a separate column showing sales.

4. How can you undo or remove a transformation step in Power Query after it has been applied?

Answer:

You can **undo** a step by using the **Applied Steps** pane on the right:

- Click the **“X”** next to the step to delete it, or
 - Right-click the step and choose **“Delete”**. This reverts your table to how it looked before that step was added.
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5. What is the difference between creating a “Reference” and creating a “Duplicate” of a query in Power Query, and how does each affect future changes to the original query?

Answer:

- A **Duplicate** creates a completely **independent copy** of the query. Any changes made to the original query will **not** affect the duplicate.
- A **Reference** creates a **linked copy** that depends on the original query. If you modify the original query, the referenced query **automatically updates** as well.

Use **Duplicate** when you want a new, separate query. Use **Reference** when you want to build on an existing query without repeating steps.

Formula Bar: (#"Pivoted Column", "Text After Delimiter", each Text.AfterDelimiter([Sheet1.Email], "@"), type text)

	1 ² Laptop	1 ² Keyboard	1 ² Mouse	1 ² Monitor	A ^B _C Text After Delimiter
	1	null	null	null	example.com
	null	null	3	null	example.com
	null	2	null	null	example.com
	null	null	null	1	example.com

Formula Bar: = Table.AddColumn(#"Pivoted Column", "Text After Delimiter", each Text.AfterDelimiter([Sheet1.Email], "@"), type text)

	1 ² OrderID	1 ² CustID	ABC ₁₂₃ Custom	1 ² Sheet1.CustID	A ^B _C Sheet1.Name	A ^B _C Sheet1.Email
1		1001	101 Table	101	Alice	alice@example.com
2		1002	102 Table	102	Bob	bob@example.com
3		1003	101 Table	101	Alice	alice@example.com
4		1004	103 Table	103	Charlie	charlie@example.com

Formula Bar: = Table.FillDown(#"Changed Type",{"Email"})

	1 ² CustID	A ^B _C Name	A ^B _C Email
1	101	Alice	alice@example.com
2	102	Bob	bob@example.com
3	103	Charlie	charlie@example.com

Formula Bar: = Table.AddColumn(#"Changed Type", "Custom", each Table.AddColumn(Source, "Result", each try [Sales] / [Quant

	1 ² OrderID	1 ² CustID	A ^B _C Product	1 ² Quantity	ABC ₁₂₃ Custom
1		1001	101 Laptop		1 Table
2		1002	102 Mouse		3 Table
3		1003	101 Keyboard		2 Table
4		1004	103 Monitor		1 Table

OrderID	Product	Quantity	Price	OrderDate
1001	Laptop	2	1200	dushanba, 1-may, 2023
1002	Mouse	5	25	seshanba, 2-may, 2023