

1. What is the difference between "Merge" and "Append" in Power Query?

- **Merge** = Joins **two tables side-by-side** based on a common key (like SQL JOIN).
 - **Append** = Stacks **rows from two or more tables** with the same structure (like SQL UNION).
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2. How do you split a "Full Name" column into "First Name" and "Last Name"?

- Select the **Full Name** column → **Transform** → **Split Column** → **By Delimiter** → **Space**
 - It creates **two columns**: First Name and Last Name.
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3. What is "Pivot Columns" used for?

- Converts **row values into columns**.
 - Useful to **summarize data**, like turning "Product" rows into columns showing total sales.
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4. How do you undo a step in Power Query?

- In the "**Applied Steps**" pane (right side), click the "**X**" **next to the step** you want to remove.
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5. What is the purpose of "Reference" vs. "Duplicate" in queries?

- **Duplicate** = Creates a **copy** of the query, including all previous steps.
 - **Reference** = Creates a **new query linked** to the output of the original (lightweight and dynamic).
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6. Merge Orders.csv and Customers.xlsx on CustID (inner join).

1. Load both files
 2. Go to **Home** → **Merge Queries**
 3. Select **CustID** in both tables
 4. Join kind: **Inner (only matching rows)**
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7. Pivot the Product column to show total Quantity per product.

- Select **Product** column → **Transform** → **Pivot Column**
 - Values Column: **Quantity**
 - Aggregation: **Sum**
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8. Append two tables with identical columns (Orders_Jan.csv + Orders_Feb.csv).

- Load both files

- Go to **Home** → **Append Queries**
- Select both tables → **Append** as new or to one of them

9. Use "Fill Down" to replace nulls in the Email column with the previous value.

- Select **Email** column → **Transform** → **Fill** → **Down**

10. Extract the domain (e.g., "example.com") from the Email column.

- Use **Transform** → **Extract** → **Text After Delimiter (@)**

OR

M-code:

m

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```
Table.AddColumn(PreviousStep, "Domain", each Text.AfterDelimiter([Email], "@"))
```

11. Write M-code to merge queries dynamically based on a parameter (e.g., JoinType = "Inner").

m

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let

JoinType = "InnerJoin", // Can be changed dynamically

Merged = Table.NestedJoin(Orders, {"CustID"}, Customers, {"CustID"}, "CustomerDetails",
JoinKind[JoinType])

in

Merged

Note: You'll need to define JoinKind as a record earlier:

m

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JoinKind = [

InnerJoin = JoinKind.Inner,

LeftOuter = JoinKind.LeftOuter,

RightOuter = JoinKind.RightOuter

]

12. Unpivot a table with columns like "Jan_Sales," "Feb_Sales" into a "Month" and "Sales" format.

- Select **Jan_Sales, Feb_Sales, etc.** → **Transform** → **Unpivot Columns**
 - Rename columns to **"Month"** and **"Sales"**
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13. Handle errors in a custom column (e.g., division by zero) using try...otherwise.

M-code example:

m

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```
Table.AddColumn(PreviousStep, "SafeDivision", each try [Amount] / [Count] otherwise null)
```

14. Create a function in Power Query to clean phone numbers (e.g., remove dashes).

Step 1: Create a new blank query with this M-code:

m

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(phone as text) =>

let

Cleaned = Text.Remove(phone, {"-", "(", ")", " "})

in

Cleaned

Save it as: **CleanPhone**

Step 2: Use it in your table:

m

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```
Table.AddColumn(PreviousStep, "CleanedPhone", each CleanPhone([PhoneNumber]))
```

15. Optimize a query with 10+ steps—identify bottlenecks and simplify.

- **Remove unused columns early** using Remove Columns
- **Filter rows early** to reduce volume
- Combine steps (e.g., rename + change type together)
- **Disable loading** for intermediate queries
- Avoid repeated Table.Join/Merge operations unless needed
- Use **"View Native Query"** in SQL sources to ensure folding (SQL-side processing)