**1. What is the difference between "Merge" and "Append"?**

| **Operation** | **Purpose** |
| --- | --- |
| **Merge** | Combines **columns** from two tables based on a key (like SQL JOIN) |
| **Append** | Combines **rows** from two or more tables (like UNION ALL) |

**2. How do you split a "Full Name" column into "First Name" and "Last Name"?**

* Select Full Name → **Transform → Split Column → By Delimiter**
* Use **Space** as delimiter → choose **Split into two columns**

**3. What is "Pivot Columns" used for?**

It transforms **row values into column headers**. Useful for summarizing data (e.g., Products as column names with total sales per product).

**4. How do you undo a step in Power Query?**

In the **Applied Steps** pane, right-click the step → choose **Delete**

**5. What is the purpose of "Reference" vs. "Duplicate"?**

| **Feature** | **Description** |
| --- | --- |
| **Duplicate** | Creates a **copy** of the query and its data |
| **Reference** | Creates a **linked query** based on the result of the original (lighter and dynamic) |

**6. Merge Orders.csv and Customers.xlsx on CustID (Inner Join):**

* Import both files
* Go to Orders query → **Home → Merge Queries**
* Select CustID in both → Join type: **Inner**

**7. Pivot the Product column to show total Quantity per product:**

* Select Product column → **Transform → Pivot Column**
* Values column: Quantity → Aggregation: **Sum**

**8. Append Orders\_Jan.csv + Orders\_Feb.csv:**

* Import both queries
* Go to **Home → Append Queries → Append as New**
* Select both tables → Click OK

**9. Use Fill Down to replace nulls in Email column:**

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

**10. Extract the domain from the Email column:**

* Select Email → **Transform → Extract → Text After Delimiter**
* Delimiter: @ → Result: example.com

**11. M-code to merge queries dynamically using a JoinType parameter:**

let

JoinType = "InnerJoin", // Can be set as parameter

Merged = Table.NestedJoin(Orders, {"CustID"}, Customers, {"CustID"}, "NewTable", JoinKind.FromText(JoinType))

in

Merged

Note: Use a function like JoinKind.Inner, JoinKind.LeftOuter, etc., depending on parameter value.

**12. Unpivot "Jan\_Sales", "Feb\_Sales", etc. into "Month" and "Sales" format:**

* Select all month columns → **Transform → Unpivot Columns**
* Rename: Attribute → Month, Value → Sales

**13. Handle errors in a custom column using try...otherwise:**

= Table.AddColumn(Source, "SafeDivide", each try [Amount] / [Quantity] otherwise null)

**14. Create a function to clean phone numbers (e.g., remove dashes):**

(phone as text) as text =>

Text.Select(phone, {"0".."9"})

Then apply this custom function to the Phone column.

**15. Optimize a query with 10+ steps—identify bottlenecks:**

* **Remove unused columns early** (step 1–2)
* **Filter rows** before merge/join operations
* **Disable query load** for intermediate queries
* **Consolidate multiple transformations** into fewer steps if possible
* Use **Table.Buffer()** before heavy joins to prevent re-evaluation