1. Difference Between "Merge" and "Append" in Power Query

- Merge: Combines two tables by matching rows on one or more key columns, adding columns from one table to another (like a SQL JOIN). Use when you want to enrich your data with additional columns from another table 11618.
- Append: Combines two or more tables by stacking rows on top of each other, increasing the row count (like a SQL UNION ALL). Use when you want to combine similar datasets into one longer table 11618.

2. Split a "Full Name" Column into "First Name" and "Last Name"

- Select the "Full Name" column.
- Go to the "Transform" tab.
- Click "Split Column" > "By Delimiter."
- Choose "Space" as the delimiter.
- Set the split at "Each occurrence of the delimiter."
- · Click OK.
- Rename the new columns to "First Name" and "Last Name"2.

3. What is "Pivot Columns" Used For?

- "Pivot Columns" transforms unique values in a column into new columns, aggregating a numeric column for each value. For example, if you pivot the "Product" column by "Quantity," you get one row per unique grouping (e.g., by customer) and a column for each product showing total quantity 12.
- Use case: Summarize data for reporting and visualization.

4. How to Undo a Step in Power Query

- Go to the "Applied Steps" pane on the right.
- Click the "X" next to the step you want to remove.
- The step and all subsequent steps will be removed.

5. Purpose of "Reference" vs. "Duplicate" in Queries

- Reference: Creates a new query that points to the output of an existing query. Changes to the original query are reflected in the referenced query.
- Duplicate: Creates a copy of the query, independent of the original. Changes to one do not affect the other.

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

- Load both tables into Power Query.
- Select the Orders table.
- Go to the "Home" tab and click "Merge Queries."
- Choose "Customers" as the second table.
- Select "CustID" in both tables.
- Set "Join Kind" to "Inner."
- Click OK.
- Expand the new column to include the desired fields from the Customers table 5617.

7. Pivot the Product Column to Show Total Quantity per Product

- Select the "Product" column.
- Go to the "Transform" tab and click "Pivot Column."
- Choose "Quantity" as the Values Column.
- Set the aggregation to "Sum."
- Click OK.

8. Append Two Tables with Identical Columns (e.g., Orders_Jan.csv + Orders_Feb.csv)

- Load both tables into Power Query.
- Select one table.
- Go to the "Home" tab and click "Append Queries."
- Choose the other table.
- Click OK. The result will be all rows from both tables combined 1818.

- 9. Use "Fill Down" to Replace Nulls in the Email Column with the Previous Value
 - Select the "Email" column.
 - Right-click and choose "Fill" > "Down."
 - This replaces null values with the last non-null value above them 919.
- 10. Extract the Domain (e.g., "example.com") from the Email Column
 - Add a custom column with the formula:

text

Text.AfterDelimiter([Email], "@")

- Rename the new column to "Domain."
- 11. Write M-code to Merge Queries Dynamically Based on a Parameter (e.g., JoinType = "Inner")
 - Create a parameter called "JoinType" with possible values: "Inner", "Left Outer", etc.
 - In the Advanced Editor, use:

text

```
= Table.NestedJoin(
Orders,
{"CustID"},
Customers,
{"CustID"},
"Merged",
JoinKind = JoinType
```

(Replace JoinType with your parameter name and ensure it is set to "Inner" for your task.)

12. Unpivot a Table with Columns Like "Jan_Sales," "Feb_Sales" into "Month" and "Sales" Format

- Select the columns you want to unpivot (e.g., "Jan_Sales", "Feb Sales").
- Right-click and choose "Unpivot Columns."
- Rename the new columns to "Month" and "Sales" 12.

13. Handle Errors in a Custom Column (e.g., Division by Zero) Using try...otherwise

• Add a custom column with the formula:

text

try [Value] / [Divisor] otherwise null

(This will return null instead of an error if division by zero occurs)13.

14. Create a Function in Power Query to Clean Phone Numbers (e.g., Remove Dashes)

- Go to the "Home" tab and click "Enter Data" to create a sample table.
- Add a column with phone numbers containing dashes.
- Add a custom column with the formula:

text

Text.Remove([Phone], {"-"})

• To make this a reusable function, go to "Home" > "Advanced Editor" and wrap the logic in a function, then invoke it as needed 14.

15. Optimize a Query with 10+ Steps—Identify Bottlenecks and Simplify

- Review the "Applied Steps" pane and look for redundant or unnecessary steps.
- Combine steps where possible by nesting or using let...in in the Advanced Editor.
- Remove columns early to reduce data volume 15.
- Avoid unnecessary data type changes and repeated calculations.
- Test performance after each optimization.