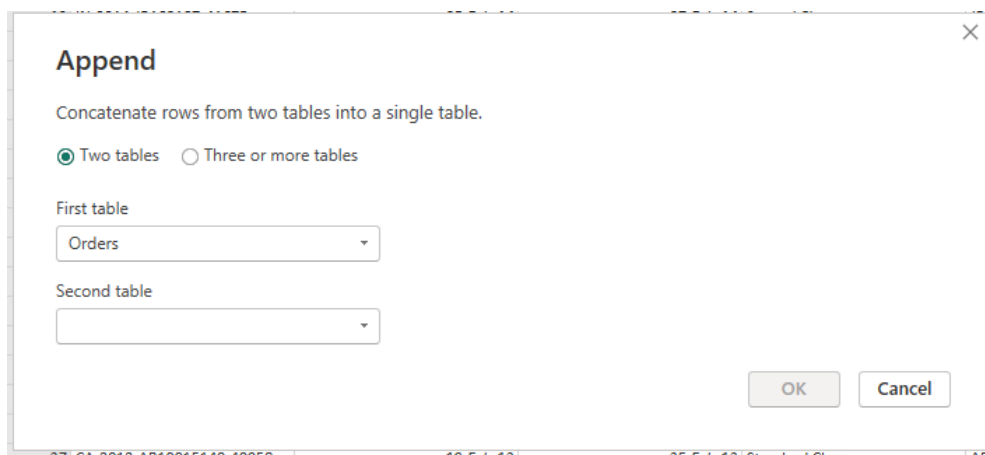


Chapter-7 Creating an Append Query in Power BI

An **Append Query** in Power BI is used to combine rows from two or more tables into a single table. This operation is useful when you have similar datasets (e.g., monthly sales reports) that you want to analyze as one unified dataset.

Why Use an Append Query?



1. **Combine Similar Datasets:**
 - For example, merging data for different periods or regions.
 2. **Standardize Reporting:**
 - Aggregate data from multiple sources with the same structure.
 3. **Simplify Analysis:**
 - Work with a single dataset instead of multiple smaller ones.
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Steps to Create an Append Query in Power BI

1. **Open Power Query Editor**
 - In Power BI Desktop, click **Transform Data** to open the Power Query Editor.
2. **Select Append Queries**
 - Go to the **Home** tab and select:
 - **Append Queries:** Appends data to the currently selected table.
 - **Append Queries as New:** Creates a new table for the appended data.
3. **Choose Tables to Append**

- In the **Append Queries** dialog box:
 - Select the number of tables to append (2 or 3+).
 - Add the tables to combine.
 - For example, append "Sales_January" and "Sales_February."
4. **Verify the Combined Table**
- The appended query will combine all rows from the selected tables into a single table.
 - Ensure the column names and data types are consistent across the tables for proper alignment.
5. **Apply Changes**
- Once satisfied with the combined data, click **Close & Apply** to save changes and load the data into Power BI.
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Example: Appending Sales Data for Two Months

Tables:

1. **Sales_January**

Date	Product	Sales
2024-01-01	Product A	100
2024-01-02	Product B	200

2. **Sales_February**

Date	Product	Sales
2024-02-01	Product A	150
2024-02-02	Product B	250

Steps:

1. Open Power Query Editor and select **Append Queries as New**.
2. Add **Sales_January** and **Sales_February** to the append operation.
3. Review the combined table.

Result:

Date	Product	Sales
2024-01-01	Product A	100
2024-01-02	Product B	200
2024-02-01	Product A	150
2024-02-02	Product B	250

Key Considerations for Append Queries

1. **Consistent Schema**
 - Ensure all tables have the same column names and data types. Mismatched columns will result in errors or null values.
 2. **Handling Extra or Missing Columns**
 - If one table has additional columns, those columns will appear with null values in the other tables.
 3. **Filter Before Appending**
 - Remove unnecessary rows or columns before appending to reduce data size and improve performance.
 4. **Append Large Datasets**
 - Append queries can handle large datasets, but it's best to preprocess and reduce the size of individual tables if possible.
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Advanced: Using Append with Different Structures

If tables have similar data but different structures, perform transformations before appending:

1. **Rename Columns:** Ensure column names match.
 2. **Reorder Columns:** Align column order to ensure proper appending.
 3. **Add Missing Columns:** Use **Add Column** to create placeholders for missing data.
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Troubleshooting Common Issues

1. **Null Values in Combined Data**
 - Ensure all tables have the same column names and data types.
2. **Performance Issues**
 - Preprocess large tables by removing unnecessary rows or columns.
3. **Unwanted Duplicates**
 - Use the **Remove Duplicates** option in Power Query to clean up combined data.

By creating append queries, you can consolidate data effectively, streamline analysis, and make your Power BI reports more comprehensive and efficient.