

A. Explain Merge Queries with an example?

Merging is another powerful transformation to optimize our tables and information that we might be getting from various sources. Learning how to merge queries in Power BI is relevant as this transformation can simplify our data models.


Getting data from different sources in Power BI isn't a big issue. It doesn't really matter where the data comes from since they will just become a query. What really matters is how we structure those tables in our model.

With that said, merging is a great technique to create tables that are totally different to what we ordinarily have since we can combine a lot of tables. In this article you will learn how to merge queries in Power BI effectively.


×

Merge

Select a table and matching columns to create a merged table.


Employee 

Employee Id	Employee Name	Department Id
101	Jack	1
102	Johns	1
103	Rina	2
104	Danu	2
105	Elin	3

Department 

DepartmentID	DepartmentName
1	IT
2	Fianance
3	Economics
4	Marketing
5	HR

Join Kind

Left Outer (all from first, matching from second) 

☐ Use fuzzy matching to perform the merge

> Fuzzy matching options

✓ The selection matches 6 of 10 rows from the first table.

OK Cancel

Left Outer (all from first, matching from second)

Right Outer (all from second, matching from first)

Full Outer (all rows from both)

Inner (only matching rows)

Left Anti (rows only in first)

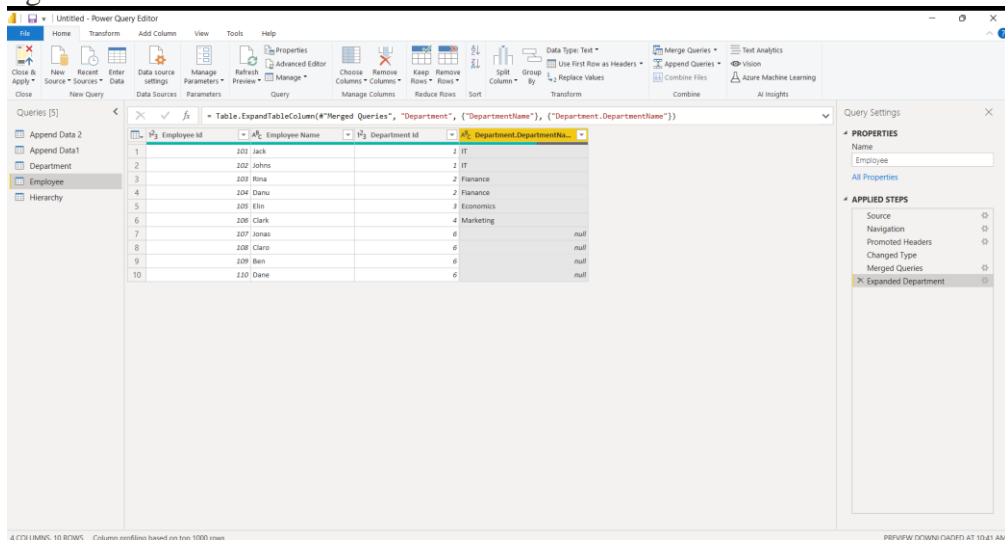
Right Anti (rows only in second)

Merge Queries Option In Power BI

We can merge queries by using two option's like merge queries (This will merge queries with the same data) And merge queries as new (In this it will create new queries)

We have 5 options of joining :

Left outer join : One of the join kinds available in the Merge dialog box in Power Query is a left outer join, which keeps all the rows from the left table and brings in any matching rows from the right table

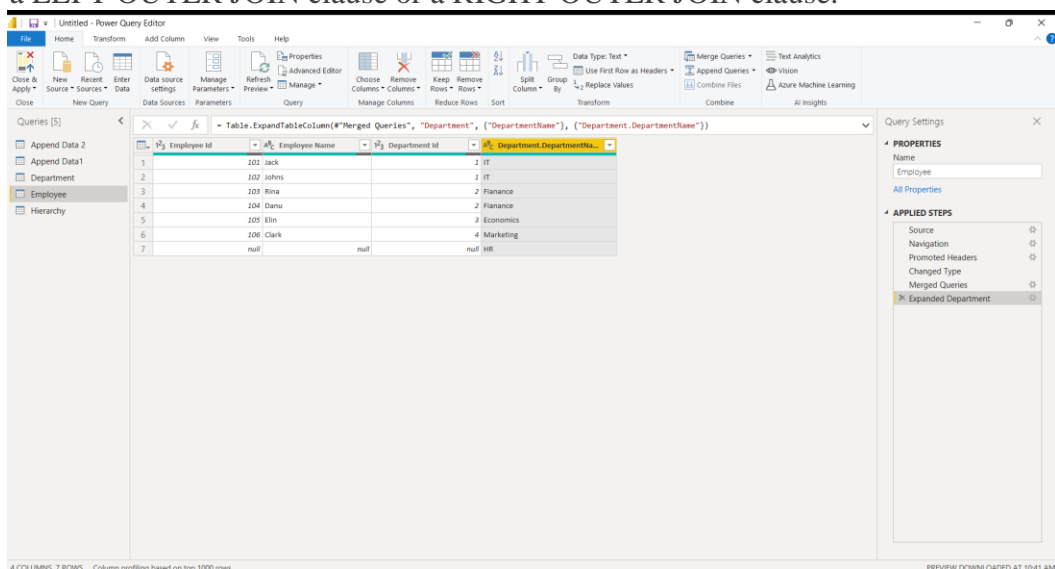


The screenshot shows the Power Query Editor interface. The main area displays a table with 10 rows and 4 columns: Employee Id, Employee Name, Department Id, and Department Name. The data is as follows:

Employee Id	Employee Name	Department Id	Department Name
202	Jack	2	IT
202	Johns	2	IT
203	Rina	2	Finance
204	Danu	2	Finance
205	Elin	3	Economics
206	Clark	4	Marketing
207	Jones	6	
208	Clark	6	null
209	Ben	6	null
210	Dane	6	null

The right-hand pane shows the 'Query Settings' for the 'Employee' query, with the 'Expanded Department' step applied.

Right outer join : A right outer join is a method of combining tables. The result includes unmatched rows from only the table that is specified after the RIGHT OUTER JOIN clause. If you are joining two tables and want the result set to include unmatched rows from only one table, use a LEFT OUTER JOIN clause or a RIGHT OUTER JOIN clause.

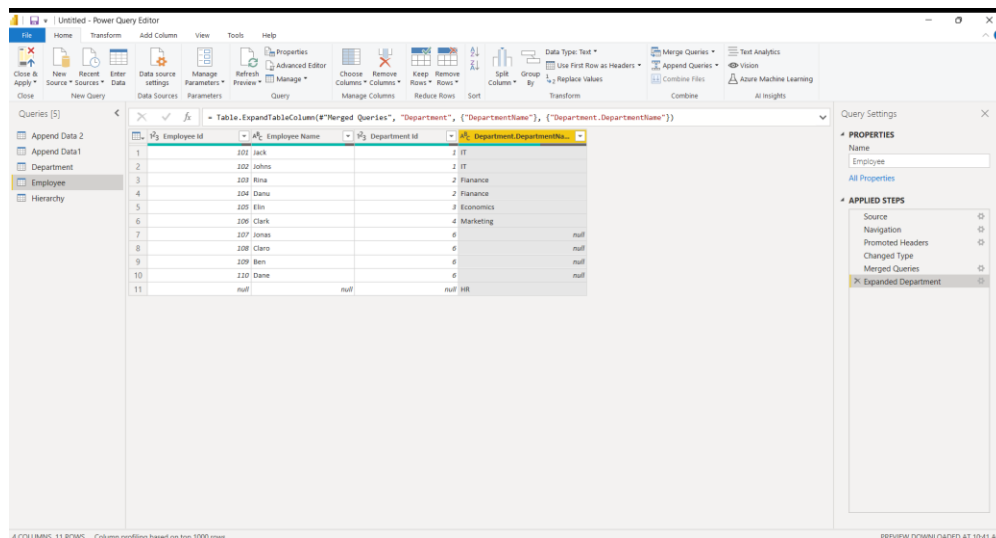


The screenshot shows the Power Query Editor interface. The main area displays a table with 7 rows and 4 columns: Employee Id, Employee Name, Department Id, and Department Name. The data is as follows:

Employee Id	Employee Name	Department Id	Department Name
202	Jack	2	IT
202	Johns	2	IT
203	Rina	2	Finance
204	Danu	2	Finance
205	Elin	3	Economics
206	Clark	4	Marketing
null		null	HR

The right-hand pane shows the 'Query Settings' for the 'Employee' query, with the 'Expanded Department' step applied.

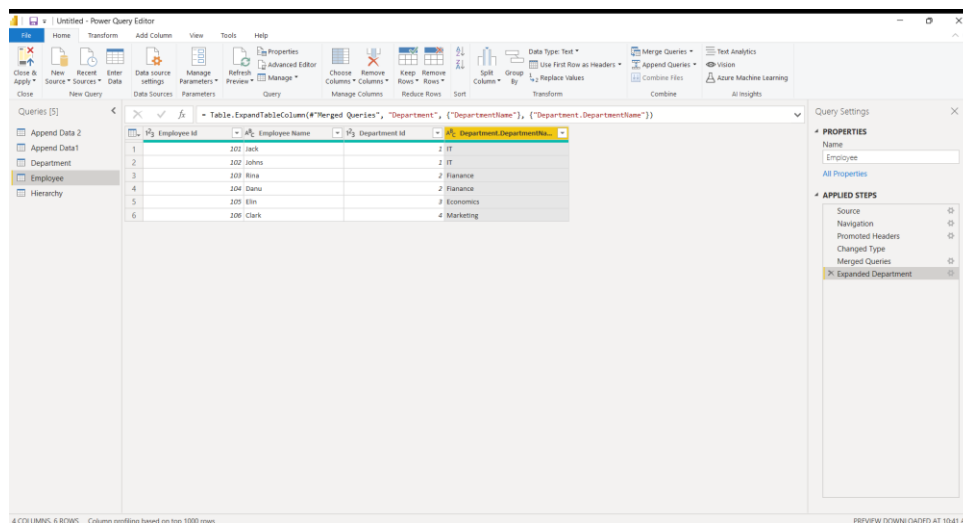
Full outer join : One of the join kinds available in the Merge dialog box in Power Query is a full outer join, which brings in all the rows from both the left and right tables.



The screenshot shows the Power Query Editor interface. The main area displays a table with 11 rows and 4 columns: Employee ID, Employee Name, Department ID, and Department Name. The table contains data for 10 employees and one null row. The right sidebar shows the 'Query Settings' pane with 'Expanded Department' selected under 'APPLIED STEPS'.

Employee ID	Employee Name	Department ID	Department Name
1	202 Jack	2 IT	
2	202 Johns	2 IT	
3	203 Rina	2 Finance	
4	204 Danu	2 Finance	
5	205 Elin	3 Economics	
6	206 Clark	4 Marketing	
7	207 Jonas		null
8	208 Claro	6	null
9	209 Ben	6	null
10	210 Dane	6	null
11	null	null	HR

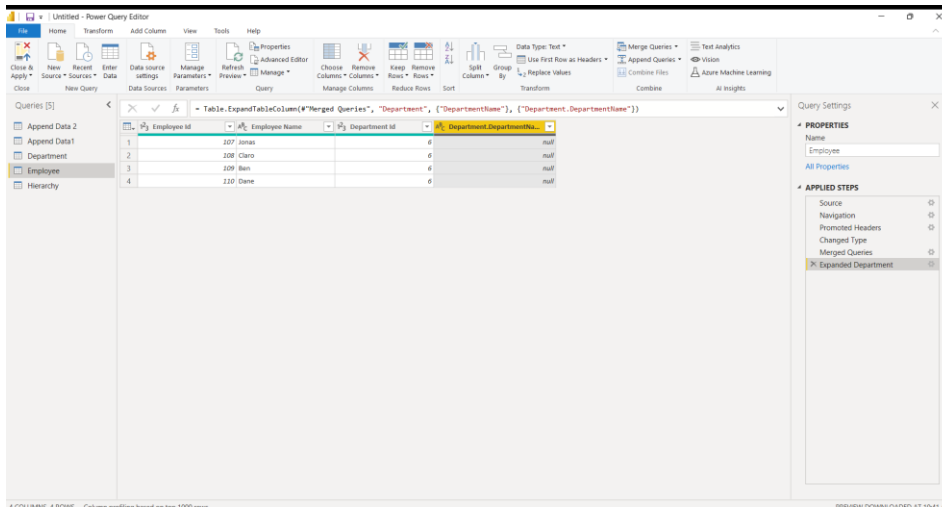
Inner join : An INNER JOIN is such type of join that returns all rows from both the participating tables where the key record of one table is equal to the key records of another table. This type of join required a comparison operator to match rows from the participating tables based on a common field or column of both the tables.



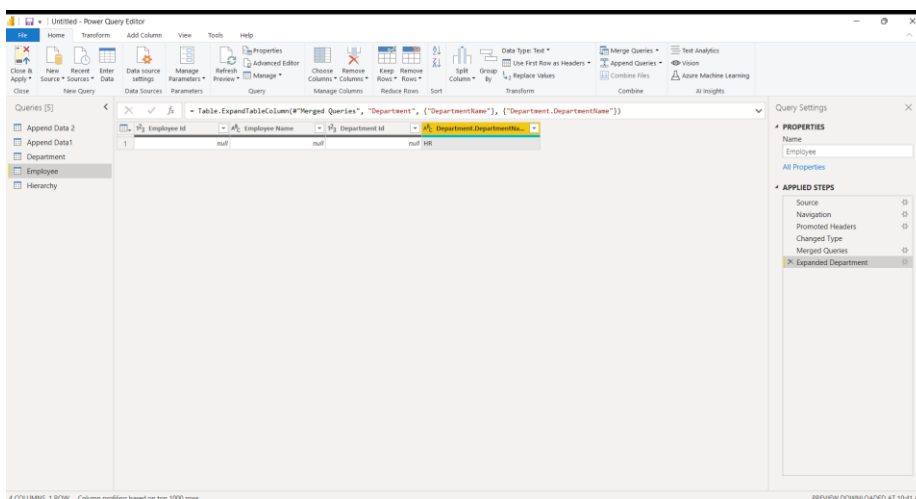
The screenshot shows the Power Query Editor interface. The main area displays a table with 6 rows and 4 columns: Employee ID, Employee Name, Department ID, and Department Name. The table contains data for 6 employees. The right sidebar shows the 'Query Settings' pane with 'Expanded Department' selected under 'APPLIED STEPS'.

Employee ID	Employee Name	Department ID	Department Name
1	202 Jack	2 IT	
2	202 Johns	2 IT	
3	203 Rina	2 Finance	
4	204 Danu	2 Finance	
5	205 Elin	3 Economics	
6	206 Clark	4 Marketing	

Left anti join : One of the join kinds available in the Merge dialog box in Power Query is a left anti join, which brings in only rows from the left table that don't have any matching rows from the right table.



Right anti join : The join will be made between the following columns. The goal is to create a table like the following, where only the rows from the right table that don't match any from the left table are kept. As a common use case, you can find all the rows that are available in the right table but aren't found in the left table.



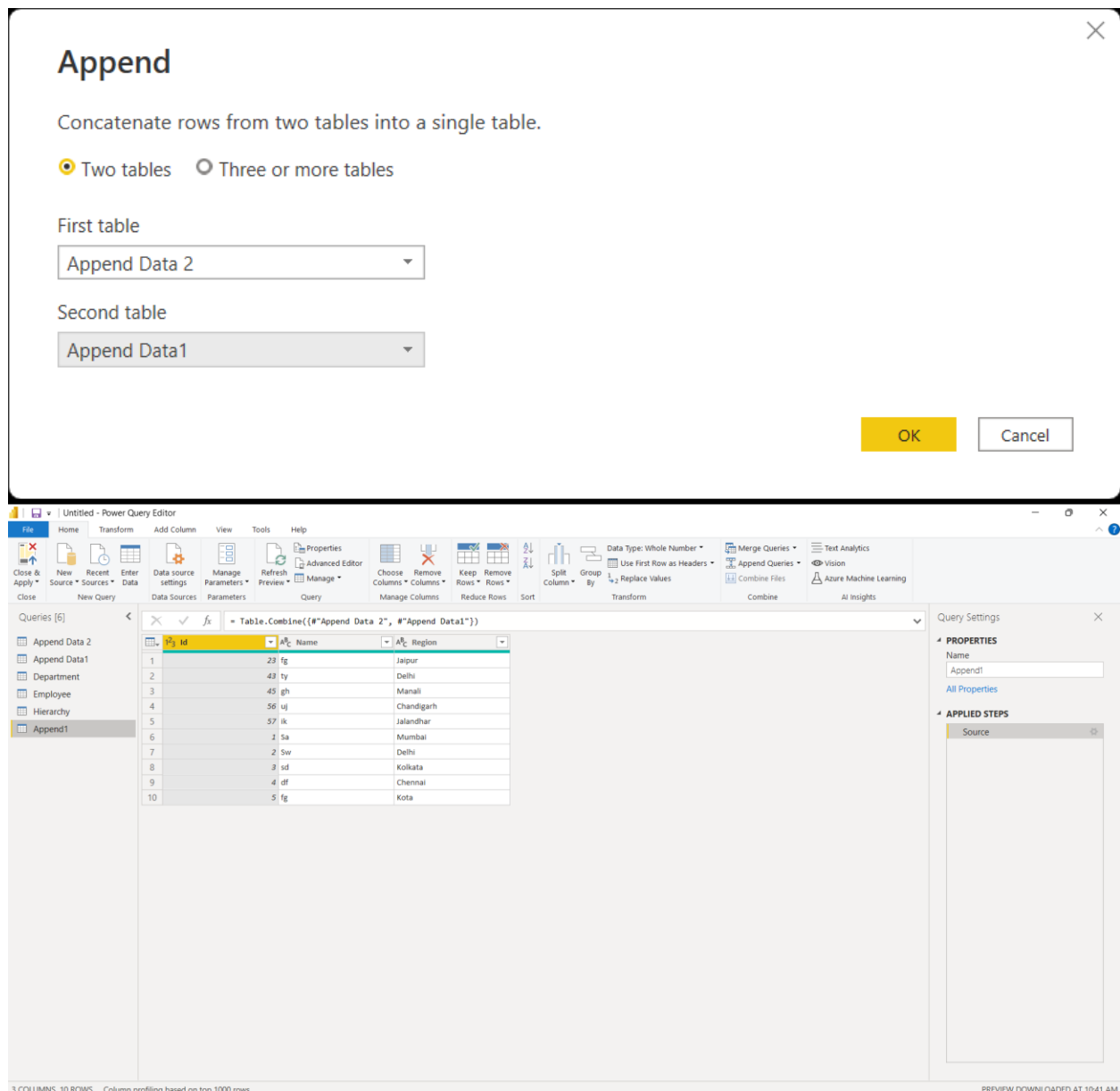
B. Explain Append Queries with an example?

An append operation creates a new query that contains all rows from a first query followed by all rows from a second query. The append operation requires at least two queries. These queries can also be based on different external data sources.

1. To open a query, locate one previously loaded from the Power Query Editor, select a cell in the data, and then select **Query > Edit**. For more information see [Create, load, or edit a query in Excel](#).

2. Select **Home > Append Queries**. The default action is to do an inline append. To do an intermediate append, select the arrow next to the command, and then select **Append Queries** as **New**.

The **Append** dialog box appears.



Decide the number of tables you want to append:

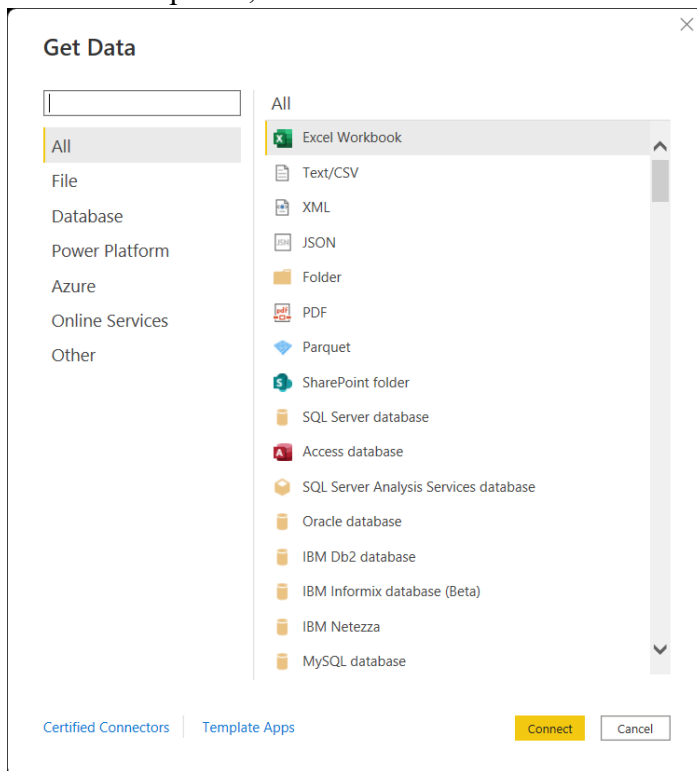
3. Select **Two tables**, and then select the second table in the drop down list box to append.
4. Select **Three or more tables**. From the Available tables box, add the tables you want to append to the Tables to append. Use the arrows on the right of that box to change sequence.
5. Select **OK**.

6. If you chose to do an inline append in step 2, a new step in the current query is created. You can continue adding steps to the same query to append additional queries.

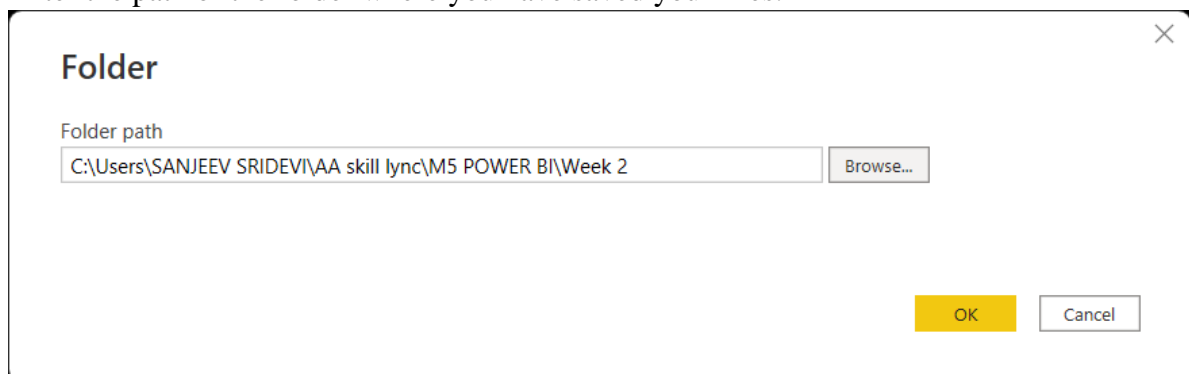
If you chose to do an intermediate append in step 2, a new query is created. You can continue creating additional queries.

C. Explain how to load multiple files from a folder?

1. Select “Get data” from the top toolbar.
2. Under the options, select “Folder” and click “Connect”.



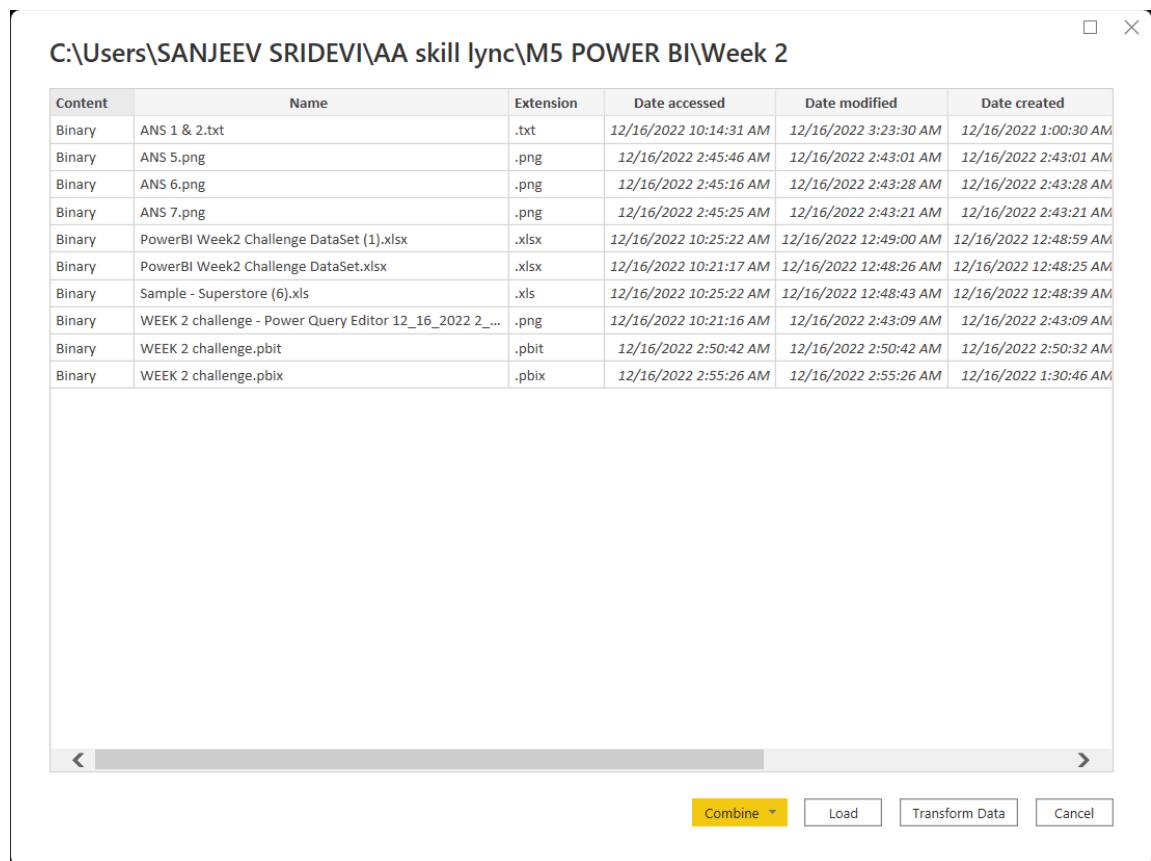
3. Enter the path of the folder where you have saved your files.



4. Your files will show up and give you three options.
 Load Data,
 Transform Data
 Combine Data – this option is new for this type of file upload.
5. Click on “Combine”, and two options will appear:
 Combine & Transform Data
 Combine & Load.

If your folder contains only the files you want and nothing else, you can go ahead and select Combine & Load.

If you need to filter out files or do any other transformation, you need to select Combine & Transform. In this example, we will be selecting Combine & Transform Data



6. A pop-up will ask you to review the combined files.

It will show you sample data and ask you to give it the specifications for each file, for example, the delimiter type.

You will just select “OK” at the bottom in most cases.

Combine Files

Specify the settings for each file. [Learn more](#)

Sample File:

First file

File Origin

1252: Western European (Windows)

Delimiter

Comma

Data Type Detection

Based on first 200 rows



Column1	Column2	Column3	Column4	Column5	Column6
1. Explain Power BI Query Editor Components along wit...					
a. Home tab: It includes common query task and tasks...	add columns				
remove rows	remove column	split column	group by	enter data	use as first row hea
b. Transform query: it includes common transformation...					
column split column data	time				
c. Add column: It creates new columns with the types o...	index column	duplicate column			
2. FORMULA BAR("M" CODE)					
3. QUERY PANE					
4. TABLE NAME & PROPERTIES					
5. APPLIED STEPS					
2. Explain Text	Number and Data Transformations				
A) Numbers Transformation Tools:					

☐ Skip files with errors

OK

Cancel

D. Create Product Hierarchy in Power BI Desktop

The image displays the Power BI Desktop interface. The main window shows a table with the following data:

Product Name	Product Category	Product Sub Category
a	Furniture	Bookcases
c	Furniture	Bookcases
d	Furniture	Bookcases
d	Iron	Gate
f	Iron	Gate
g	Iron	Gate
h	Iron	Gate
i	Stone	Glass
j	Stone	Glass
k	Stone	Glass
l	Stone	Glass
o	Stone	Glass
p	Stone	Glass
r	Furniture	Bookcases
r	Iron	Gate
x	Iron	Gate

The right-hand pane shows the 'Visualizations' and 'Fields' panes. The 'Fields' pane shows a hierarchy structure: Product Name Hierarchy > Product Category > Product Sub Category > Product Name. The 'Columns' pane shows the hierarchy structure: Product Name Hierarchy > Product Category > Product Sub Category > Product Name. The 'Filters' pane shows filters on this visual, filters on this page, and filters on all pages.

The bottom window shows the Power Query Editor. The query is named 'Table.TransformColumnTypes(#Promoted Headers,{{"Product Category", type text}, {"Product Sub Category", type text}, {"Product Name", type text}})'. The 'Columns' pane shows the hierarchy structure: Product Name Hierarchy > Product Category > Product Sub Category > Product Name. The 'Applied Steps' pane shows the steps: Source, Navigation, Changed Type, Promoted Headers, and Changed Type1.

This is a image of hierarchy Product Hierarchy in Power BI Desktop.