How to Use the Get & Transform Feature in Excel

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Get Data from a Website

This technique is handy for capturing data from a website. It especially useful for webpages that need to be accessed multiple times, such as a page of stock prices. Note that this will work with any web page that contains tabular data, but for best results the page should be available without a password. In this exercise we will get data from the Nasdaq After-Hour page, which is active between 4 and 8 pm Eastern US Time.

Procedure:

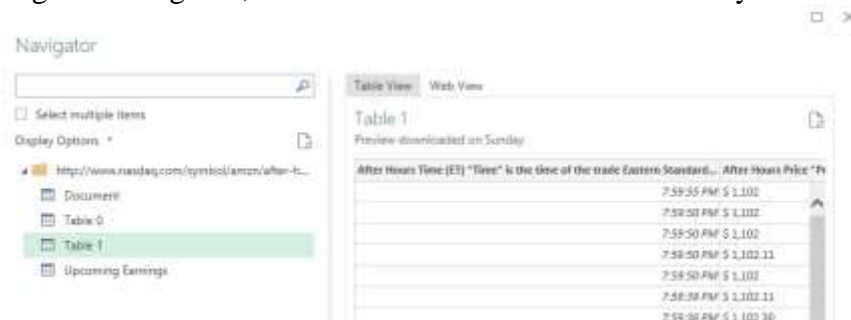Using a web browser, go to: http://www.nasdaq.com/symbol/amzn/after-hours

Copy the address of the web page.

In Excel 2016, click the Data tab.

In the Get & Transform group on the left, click: From Web

In the From Web dialog box, Paste the address of the web page.

In the Navigator dialog box, click the Table that contains the data you need.

Click: Load

A new sheet will appear with a formatted table containing the data from the web page.

On the right, a Queries & Connections pane will appear with the new query.

Right-click the new query and choose Rename.

Rename the query as: After-Hours Amazon Prices

Right-click the worksheet tab and rename the sheet as: After-Hours AMZN

Get Data from a Stepped Layout Table

A stepped table such as the one below may be easy to read, but it is not a standard dataset format. If data is not in a standard dataset format, it will be difficult to analyze the data with Pivot Tables and other techniques. Fortunately, the Get & Transform tool can easily transform such a table into a useful dataset.

Branch	Salesperson	Item	Sales
Atlanta			
	Ames		
		Apples	45
		Bananas	23
	Ames Total		68
	Allen		
		Apples	32
		Corn	76
	Allen Total		108
	Alvarez		
		Bananas	12
		Corn	57
	Alvarez Total		69
Atlanta Total			245

Procedure:

Download the file Stepped-Data-Table.xlsx and store it into an appropriate folder.
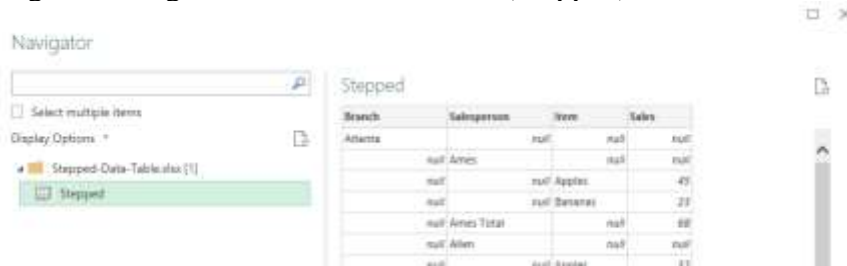
In Excel,

In Excel 2016, click the Data tab.

Find the Get & Transform group on the left

Click Get Data > From File > From Workbook

In the Import Data dialog box, browse to the folder containing the file and double-click the file.

In the Navigator dialog box, click the table icon (Stepped) on the left.
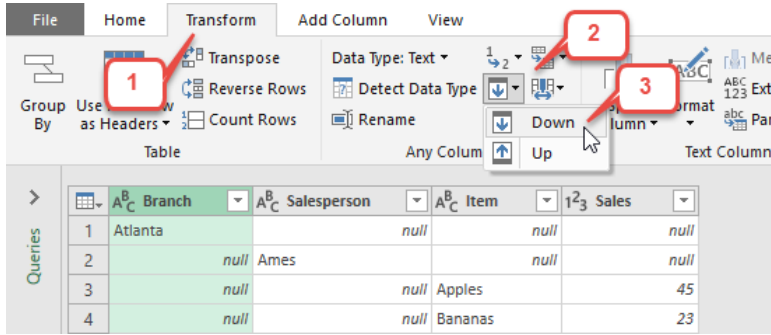

At the bottom of the Navigator dialog box, click: Edit

The Query Editor will appear showing the table.

Click the Branch column header to select the column (if not already selected).

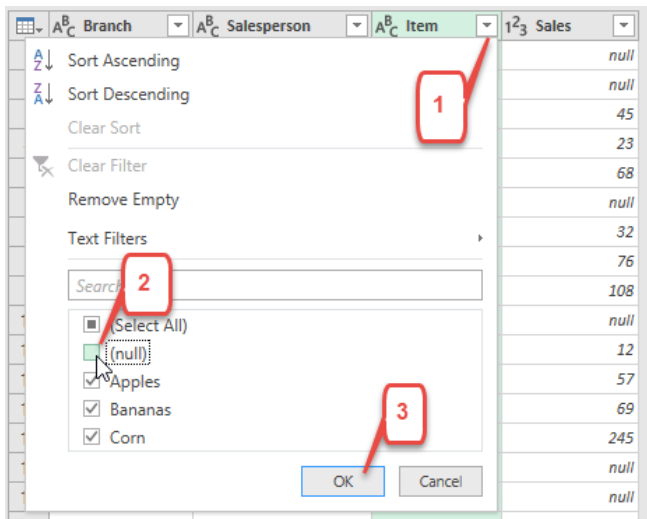Click the Transform tab and then click the Fill button and choose Down:

Click the Salesperson column header and repeat the above Fill procedure.
Now we can remove the Totals rows, which each have a null in the Item column.
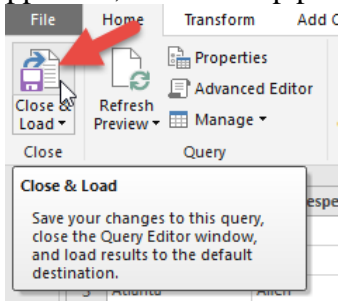Click the Item column header to select it.
Click the Filter button in the Item column header, then uncheck the (null) check box, and click OK.

Locate the Query Settings task pane on the right.
Rename the query as: Get Stepped Table
In the upper left, click the top part of the button Close & Load.

A new worksheet will appear with a formatted table showing the imported data:

Branch	Salesperson	Item	Sales
Atlanta	Ames	Apples	45
Atlanta	Ames	Bananas	23
Atlanta	Allen	Apples	32
Atlanta	Allen	Corn	76
Atlanta	Alvarez	Bananas	12
Atlanta	Alvarez	Corn	57
Boston	Boggs	Apples	32
Boston	Boggs	Bananas	43
Boston	Bellini	Apples	41
Boston	Bellini	Corn	62
Boston	Barton	Bananas	42
Boston	Barton	Corn	59

Rename the worksheet tab as: Stepped Data

Get Data from a Multi-Column Table

A multi-column table provides a great amount of information in a small space, but it is not a standard dataset format. If data is not in a standard dataset format, it will be difficult to analyze it with Pivot Tables and other techniques. Fortunately, the Get & Transform tool can easily transform such a table into a useful dataset. Also, note that the Get & Transform feature can handle text files such as .csv as easily as Excel workbook files.

Salesperson	Apples	Bananas	Corn	Dill	Grand Total
Allen	55	21	45	18	139
Alvarez	35	43	47	11	136
Ames	38	23	22	20	103
Barton	42	32	43	18	135
Bellini	41	15	62	25	143
Boggs	17	34	43	43	137
Grand Total	228	168	262	135	793

Procedure:

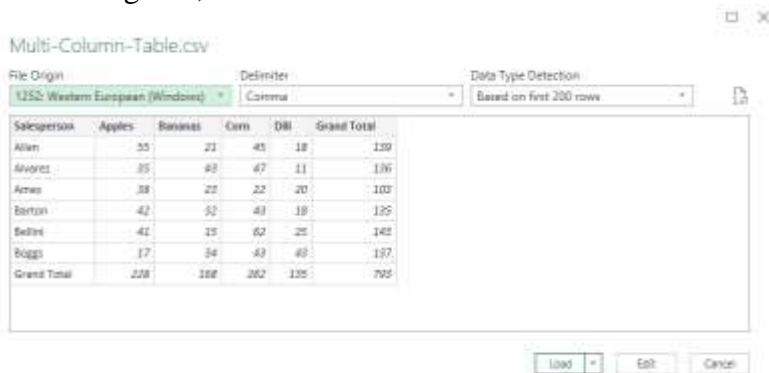Download the file Stepped-Data-Table.xlsx and store it into an appropriate folder.
In Excel,
In Excel 2016, click the Data tab.
Find the Get & Transform group on the left
Click From Text/CSV
In the Import Data dialog box, browse to the folder containing the file and double-click the file.
In the dialog box, click Edit

Click the Salesperson column header to select the column, if not already selected.
Click the Transform tab.
Click the arrow to the right of the Unpivot button and choose Unpivot Other Columns
Right-click the Attribute column header and rename it as Item
Right-click the Value column header and rename it as Amount
Click the Filter button for the Attribute column and uncheck the box for Grand Total
Click the Filter button for the Salesperson column and uncheck the box for Grand Total
Click the Home tab.
Click the top part of the Close & Load button.
A new worksheet will appear with a formatted table showing the imported data:
Rename the new worksheet tab as: Multi-Column Data

Get and Append Data

You can use the Get & Transform feature to get several data files and append them to each other to form an Excel table. The great thing is that you don't have to name the files; you can simply point to a fold that contains them. Once you set up the query, you can import data into Excel just by placing the data files into the proper folder!

In this exercise, we will combine two Excel spreadsheets: Atlanta.xlsx and Boston.xlsx. Note that in addition to appending the files, we will also include the filenames as a field in the resulting data table, identifying the city where each salesperson is located.

Note that all of the data files have to have the same layout, i.e., the same column headers and the same type of data in the respective columns. Also, the files should use the new ".xlsx" or ".xlsm" formats. The older ".xls" format could cause problems.

Procedure:

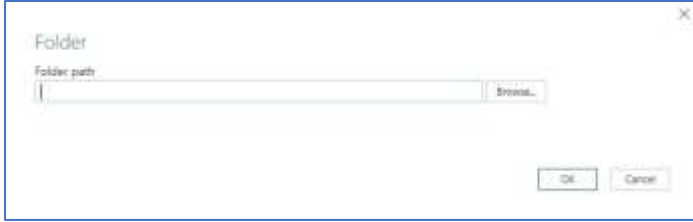Create a folder called Sales Data (or similar) and copy the Atlanta.xlsx and Boston.xlsx files into it.
Open an Excel file (which could be blank)
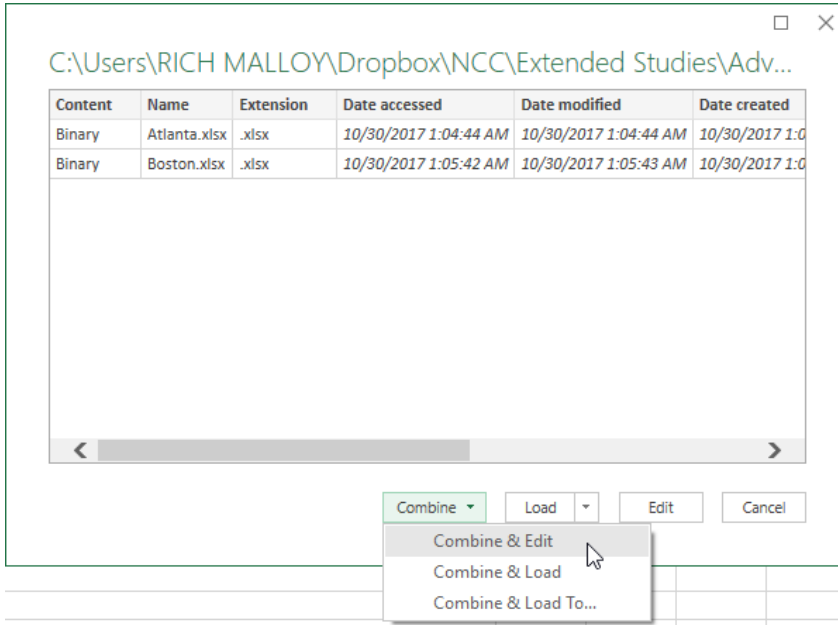Click Data > Get Data > From File > From Folder
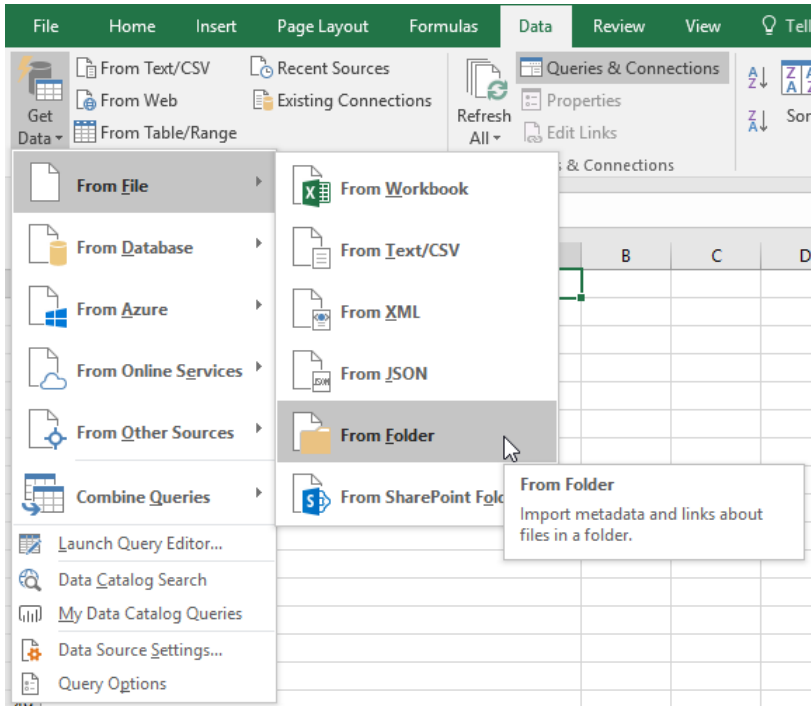
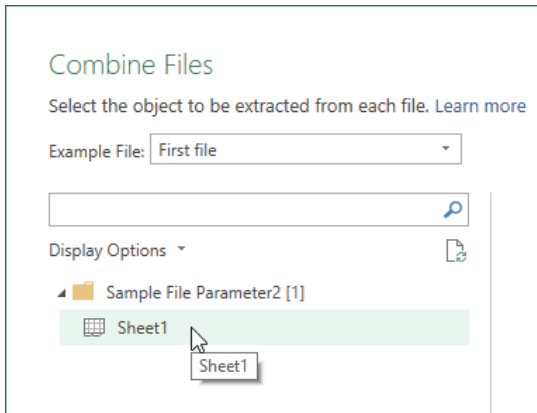Browse to the folder containing the data files
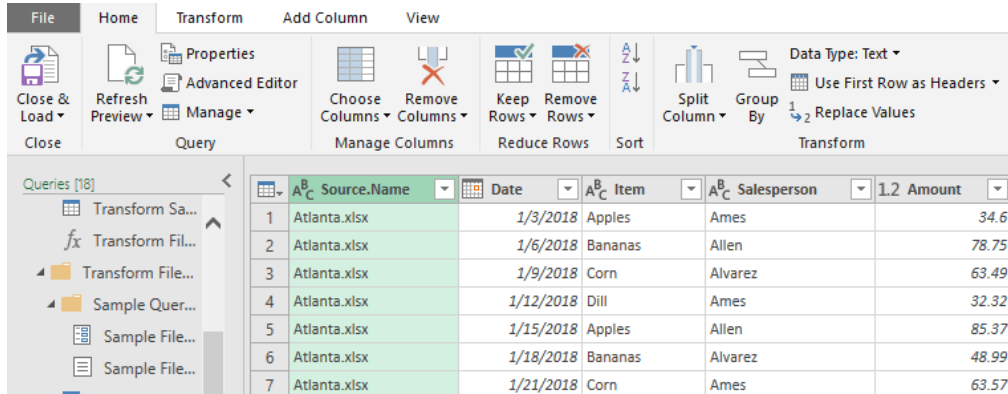
Click: Combine > Combine & Edit

Select the table Sheet1

Click: OK
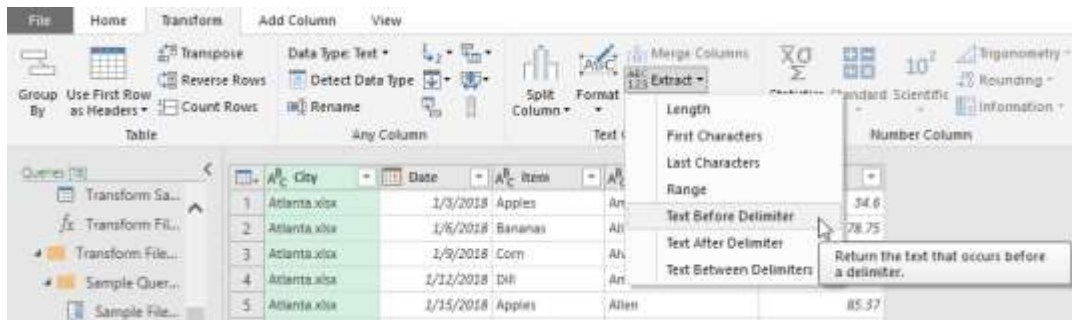Fix the first column (City):

Right-click the column header for the first column and choose Rename

Enter: City

With the City column selected, click Transform > Extract > Text After Delimiter
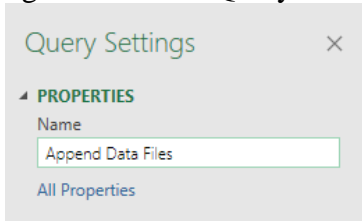

Type a period and Click: OK

Drag the City column header and position between the columns Item and Salesperson
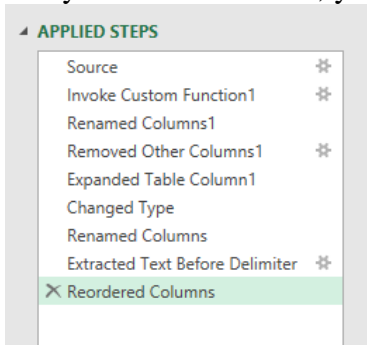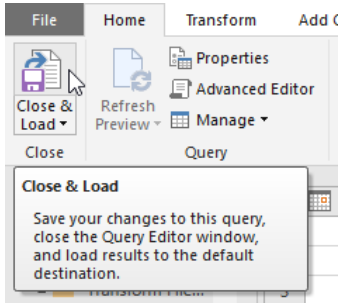
On the right side of the Query Editor, give the query a suitable name:

Note that if you make a mistake, you can undo any step by deleting it from the list on the right:

Click: Home > Close & Load

A new worksheet will appear in your current workbook with the result of the query:

	A	B	C	D	E	F
1	Date	Item	City	Salesperson	Amount	
2	1/3/2018	Apples	Atlanta	Ames	34.6	
3	1/6/2018	Bananas	Atlanta	Allen	78.75	
4	1/9/2018	Corn	Atlanta	Alvarez	63.49	
5	1/12/2018	Dill	Atlanta	Ames	32.32	
6	1/15/2018	Apples	Atlanta	Allen	85.37	
7	1/18/2018	Bananas	Atlanta	Alvarez	48.99	
8	1/21/2018	Corn	Atlanta	Ames	63.57	

Rename the worksheet tab as desired

To update the query:

Copy the Cleveland.xlsx file into the Sales Data folder
In Excel, display the Queries by clicking: Data > Queries & Connections
Right-click the query and choose: Refresh

For More Information:

For more details on this technique, including some very powerful additional features, check out the following video:

https://www.youtube.com/watch?v=yEmQHGv6KXs

Get and Merge Data

In this exercise, we have two workbooks: a table of sales, and a table of margins. With the Get & Transform feature, we are going to merge the two workbooks together in order to calculate the net profit for each salesperson.

Procedure:

1. Import the Sales file and choose **Edit**.
2. Name the query: **SalesWithoutMargins**
3. Close and Load to: **a Connection only**
4. Import the Margins file and choose **Edit**.
5. Name the query: **MarginsLookupTable**
6. Close and Load to: **a Connection only**
7. Click: **Import > Combine Queries**
8. Select the queries above
9. Select the matching columns
10. Choose: **Inner Join**
11. Adjust last column in new table to show only **Margin**
12. In the above step, be sure to uncheck the box
13. Click: **Add a Column > Custom**
14. Create formula: **Number.Round([Price]*[Margin],2)**
15. Note that formula is case sensitive"