

MANIPULATING DATA WITH POWER QUERY

BY
JORDAN GOLDMEIER

LAB 1: MERGING DATA.

You have been tasked to use Excel to manipulate data using Power Query

MODULE REQUIREMENTS

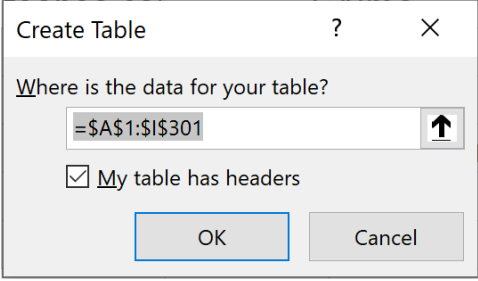
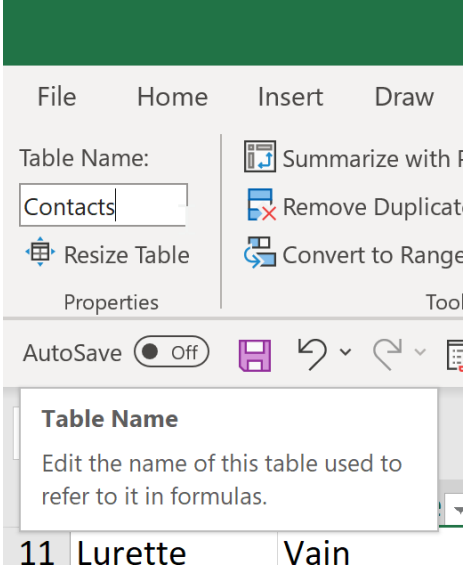
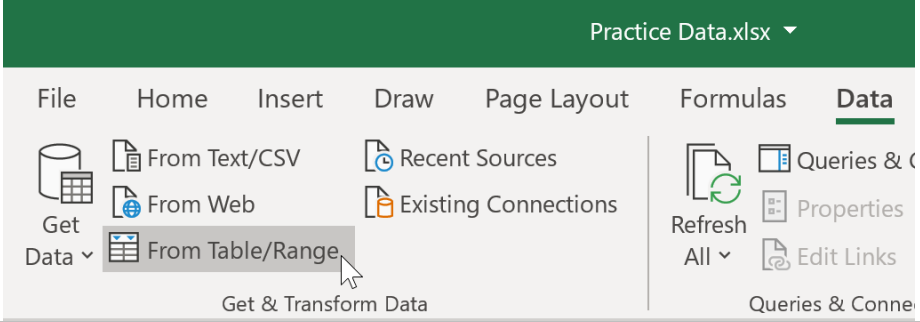
- ▶ Creating an Excel Table
- ▶ Opening Power Query
- ▶ Manipulating Data Power Query
- ▶ Closing and Loading To...

HINTS

Remember to play around with Power Queries different features.

STEP-BY-STEP INSTRUCTIONS

Click Steps	Screen Shots											
<ol style="list-style-type: none"> 1. Open Practice Data.xlsx 2. From on the Practice Data tab, place the selector anywhere inside the contiguous data region. 	1	A	B	C	D	E	F	G	H	I	J	
	1	first_name	last_name	Email	City	Street	NurStreet	NarStreet	Suff	SSN	Telephone	Number
	2	Julio	Proffer	jproffer0@MosjÄ,en		8	Buena	VistPlace		319-62-20	558-331-5918	
	3	Fianna	Aberchird	faberchird	Kozloduy	47	Briar	CrestPlace		112-39-34	365-960-6855	
	4	Doyle	Winfindin	dwinfindir	Hengli	53	Bellgrove	Point		597-59-65	414-127-8818	
	5	Thurstan	Swanger	tswanger3	Birigui	8551	Amoth	Parkway		355-32-83	984-534-6710	
	6	Saleem	Crowest	scrowest4	Nong Ki	7	Warbler	Crossing		690-60-61	948-660-9653	
	7	Darcee	Duff	dduff5@cc	Jiujianfang	96334	Redwing	Crossing		522-04-15	695-160-1859	
	8	Pen	Saffin	psaffin6@unblog.fr		5	Br	chwooc	Crossing	415-81-23	101-647-8844	
	9	Eilis	Roots	eroots7@r	Gelap	804	Victoria	Drive		426-70-33	919-393-0284	
	10	Bobbie	January	bjanuary8	Huayllo	3529	Corben	Junction		796-57-22	423-816-3767	
	11	Lurette	Vain	lvain9@bt	General Se	97	Sycamore	Trail		816-17-19	268-346-3659	
	12	Sallie	Saville	ssavillea@taobao.com		1	Almo	Crossing		520-02-07	825-767-6535	
	13	Regen	Downing	rdowningt	Energetic	59	Emmet	Circle		360-03-63	418-795-9799	
	14	Hunfredo	Colmore	hcolmorec	Bokino	17	Forest	Rur	Alley	401-44-49	489-873-9618	
	15	Elbertine	Bucklee	ebuckleed	Motong	26	Carpenter	Drive		188-92-61	801-904-9977	
	16	Elise	Conti	econti@r	Gaopai	85509	Dayton	Circle		789-36-05	767-745-5114	
	17	Nydia	Shimuk	nshimukf@Passos		67	Almo	Road		457-30-61	902-422-6181	
	18	Goldie	Fulep	gfulepg@fotki.com		8	Scofield	Street		262-57-51	728-117-3415	
	19	Nanete	Caskey	ncaskeyh@Condega		11	Monica	Parkway		155-22-10	361-649-1911	
20	Ronda	Roffev	rroffevi@r	Panakura	6	Gravhawk	Park		423-29-35	196-577-1674		

Click Steps	Screen Shots
<ol style="list-style-type: none"> 1. Go to Insert >> Table or Press Ctrl + to insert a Table. 2. Ensure My Table has Headers is checked. 3. Ensure the data region references is = \$A\$1:\$I\$301. 4. Press OK. 	
<ol style="list-style-type: none"> 5. Immediately after creating your table, change the Table Name to Contacts. <p>You can edit a Table's name from on the Table Design tab.</p>	
<ol style="list-style-type: none"> 6. Pull the table into Power Query. Do this by going to Data > Table/Range while the Excel cursor is in the Table. 	

Click Steps

7. Power Query will load.
8. Once complete we can begin making edits to table.
9. We will first edit the first_name column. Double click into the column so all the text is highlight.
10. Replace this text with First Name.
11. Do the same for last_name. Change it to Last Name.

Screen Shots

Contacts - Power Query Editor

File Home Transform Add Column View

Formula Bar Monospaced Column distribution Always allow Advanced Editor Query Dependencies
 Show whitespace Column profile
 Column quality

Layout Data Preview Columns Parameters Advanced Dependencies

fx = Table.TransformColumnTypes(Source,{{"first_name", type text}, {"last_name", type text}}

	first_name	last_name	Email	City
1	Julio	Proffer	jproffer0@people.com.cn	MosjÃ,en
2	Fianna	Aberchirder	faberchirder1@friendfeed.com	Kozloduy
3	Doyle	Winfindine	dwinfindine2@imageshack.us	Hengli
4	Thurstan	Swanger	tswanger3@ca.gov	Birigui
5	Saleem	Crowest	scrowest4@dropbox.com	Nong Ki
6	Darcee	Duff	dduff5@cocolog-nifty.com	Jiujianfang
7	Pen	Saffin	psaffin6@unblog.fr	null
8	Ellis	Roots	eroots7@oalc.gov.au	Gelap
9	Bobbie	January	bjanuary8@dot.gov	Huayllo

Contacts - Power Query Editor

File Home Transform Add Column View

Formula Bar Monospaced Column distribution Always allow Advanced Editor Query Dependencies
 Show whitespace Column profile
 Column quality

Layout Data Preview Columns Parameters Advanced Dependencies

fx = Table.RenameColumns("#Changed Type",{{"first_name", "First Name"}})

	First Name	Last Name	Email	City
1	Julio	Proffer	jproffer0@people.com.cn	MosjÃ,en
2	Fianna	Aberchirder	faberchirder1@friendfeed.com	Kozloduy
3	Doyle	Winfindine	dwinfindine2@imageshack.us	Hengli

Click Steps

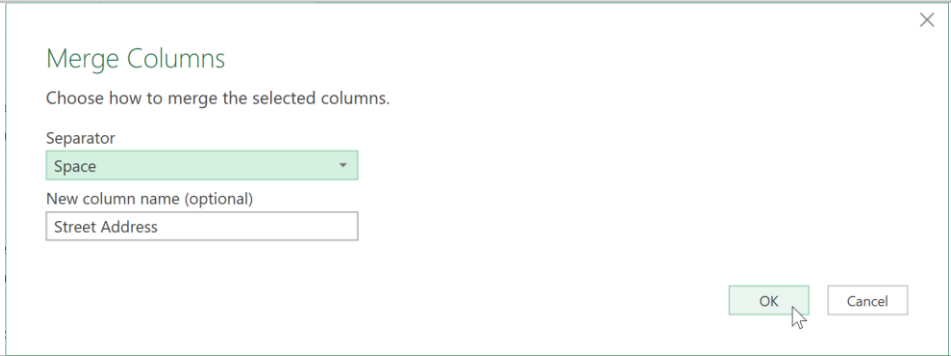
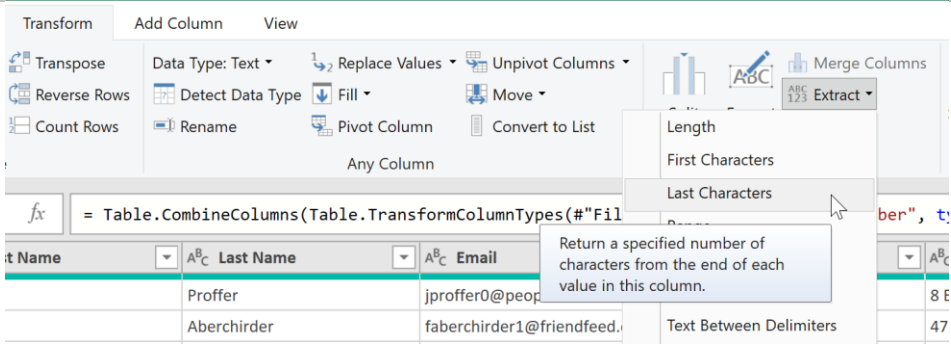
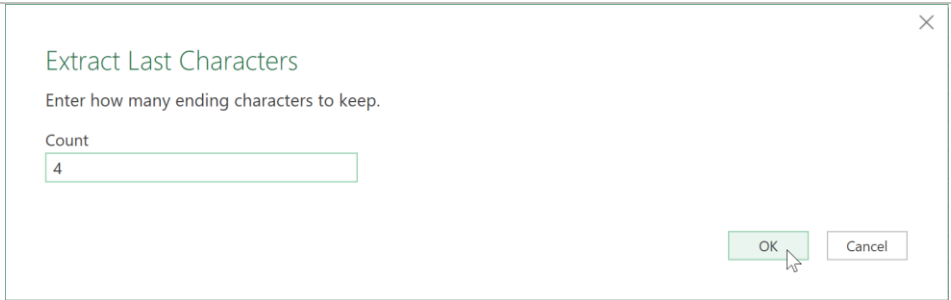
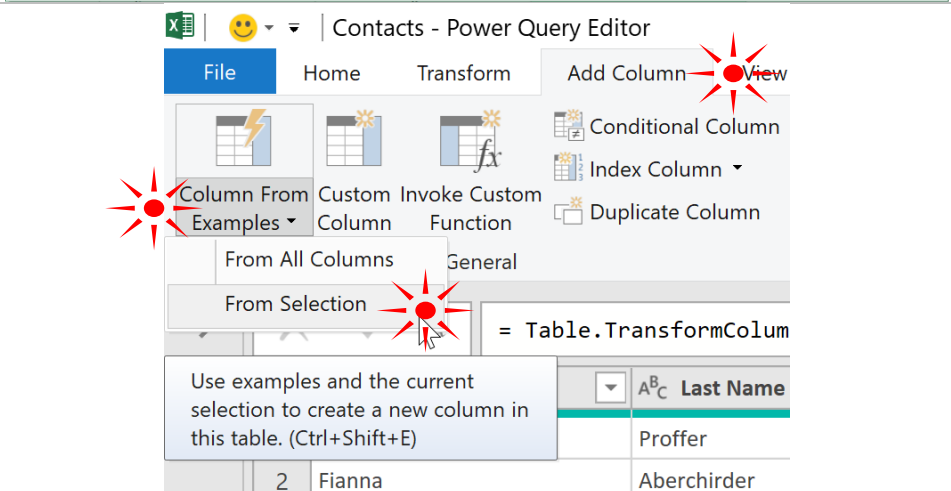
Screen Shots

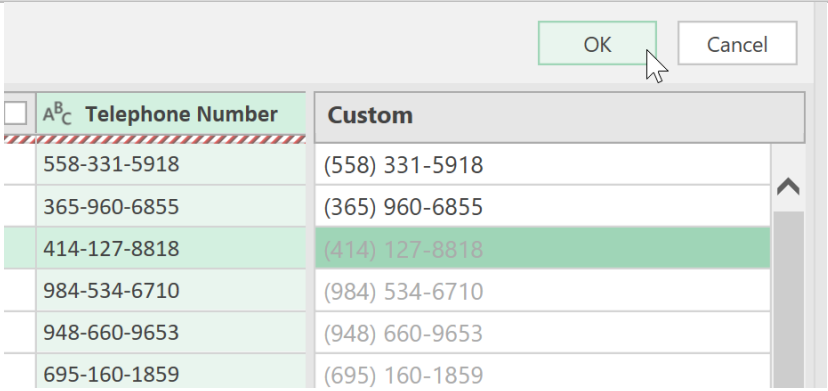
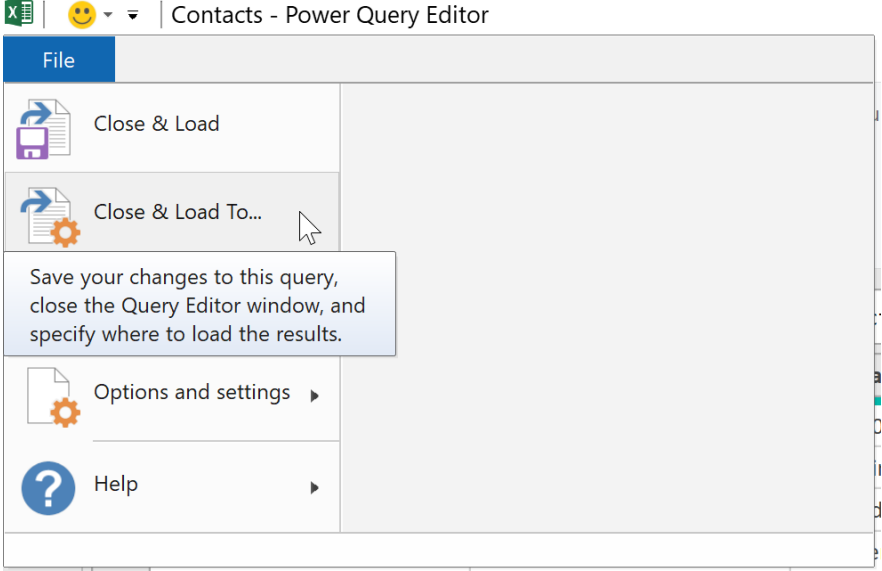
12. Let's filter out the null values from City.
13. Click on the dropdown arrow to the right of the City column.
14. Uncheck (null)
15. Then click the OK button at the bottom of the dropdown popup.

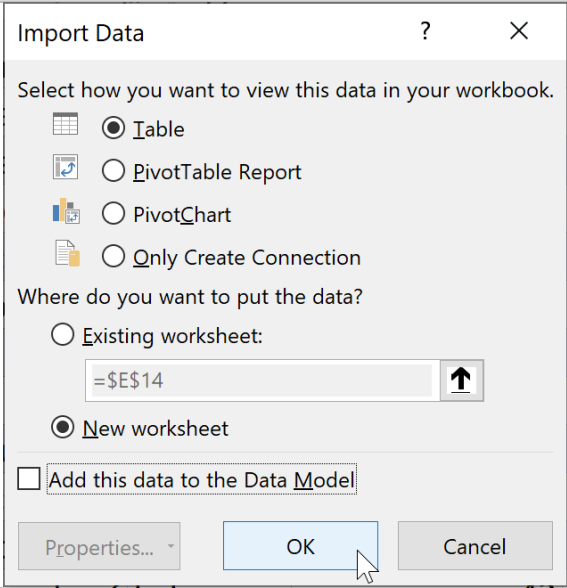
16. Let's merge the columns Street Number, Street Name, and Street Suffix into one column called Street Address.
17. While holding shift click Street Number, Street Name, and Street Suffix

1 ² 3 Street Number	A ^B C Street Name	A ^B C Street Suffix
8	Buena Vista	Place
47	Briar Crest	Place
53	Bellgrove	Point
8551	Amoth	Parkway
7	Marble	Crossing

18. From on the Transform tab select Merge Columns.

Click Steps	Screen Shots
<p>19. In the Merge Columns dialog box, select Space as the separator. Renamed the new column to be Street Address.</p> <p>20. Click OK.</p>	
<p>21. Let's only show the last for digits of the social security numbers provided.</p> <p>22. Click on SSN column header.</p> <p>23. From the Transform tab select Extract > Last Characters.</p>	
<p>24. In the Extract Last Characters dialog box set the count to 4.</p> <p>25. Press OK to have it take effect.</p>	
<p>26. Let's adjust the telephone number format to (###) ###-####.</p> <p>27. First select the Telephone Number column header.</p> <p>28. From on the Add Column ribbon, select Column From Examples > From Selection</p>	

Click Steps	Screen Shots														
<p>29. While referencing the Telephone Number rewrite the first two entries in the correct format.</p> <p>Use the screenshot to the right as a reference.</p> <p>The dark black font represents the first two entries I retyped. The grey font reflects what Excel learned through my efforts.</p> <p>Press OK.</p>	 <table border="1" data-bbox="646 457 1448 751"> <thead> <tr> <th data-bbox="646 457 954 506">A^BC Telephone Number</th> <th data-bbox="954 457 1448 506">Custom</th> </tr> </thead> <tbody> <tr> <td data-bbox="646 506 954 548">558-331-5918</td> <td data-bbox="954 506 1448 548">(558) 331-5918</td> </tr> <tr> <td data-bbox="646 548 954 590">365-960-6855</td> <td data-bbox="954 548 1448 590">(365) 960-6855</td> </tr> <tr> <td data-bbox="646 590 954 632">414-127-8818</td> <td data-bbox="954 590 1448 632">(414) 127-8818</td> </tr> <tr> <td data-bbox="646 632 954 674">984-534-6710</td> <td data-bbox="954 632 1448 674">(984) 534-6710</td> </tr> <tr> <td data-bbox="646 674 954 716">948-660-9653</td> <td data-bbox="954 674 1448 716">(948) 660-9653</td> </tr> <tr> <td data-bbox="646 716 954 751">695-160-1859</td> <td data-bbox="954 716 1448 751">(695) 160-1859</td> </tr> </tbody> </table>	A ^B C Telephone Number	Custom	558-331-5918	(558) 331-5918	365-960-6855	(365) 960-6855	414-127-8818	(414) 127-8818	984-534-6710	(984) 534-6710	948-660-9653	(948) 660-9653	695-160-1859	(695) 160-1859
A ^B C Telephone Number	Custom														
558-331-5918	(558) 331-5918														
365-960-6855	(365) 960-6855														
414-127-8818	(414) 127-8818														
984-534-6710	(984) 534-6710														
948-660-9653	(948) 660-9653														
695-160-1859	(695) 160-1859														
<p>30. We're now finished data wrangling.</p> <p>31. Click File > Close & Load To...</p>	 <p>Contacts - Power Query Editor</p> <p>File</p> <ul style="list-style-type: none"> Close & Load Close & Load To... Options and settings Help <p>Save your changes to this query, close the Query Editor window, and specify where to load the results.</p>														

Click Steps	Screen Shots
<p>32. Select Table in the top half. New worksheet in the bottom half.</p> <p>33. Click OK.</p>	
<p>34. Congratulations! You have created a new query with Power Query.</p> <p>35. Remember, you can have the query refresh any time by pressing the Refresh button from on the Table Design tab.</p>	