

MANIPULATING DATA WITH POWER QUERY

BY
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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

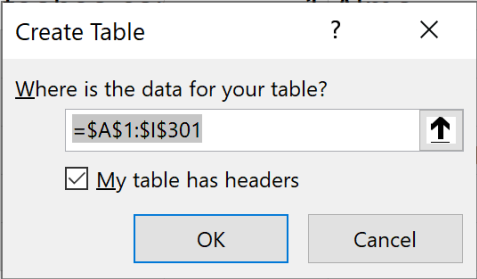
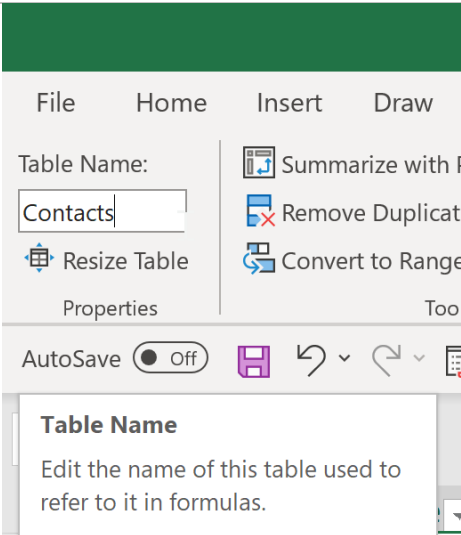
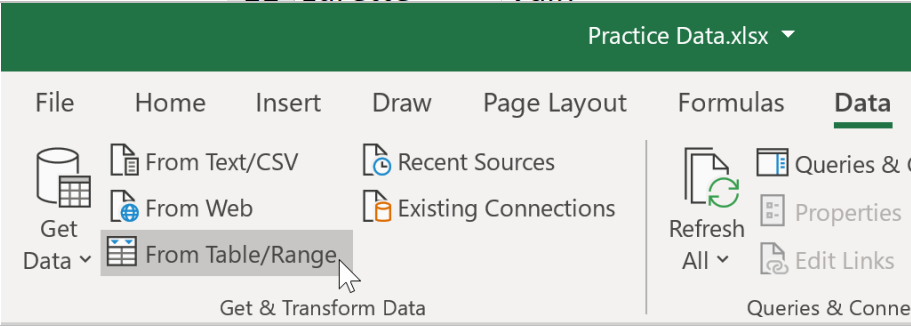
Click Steps

Screen Shots

1. Open Practice Data.xlsx

2. From on the Practice Data tab, place the selector anywhere inside the contiguous data region.

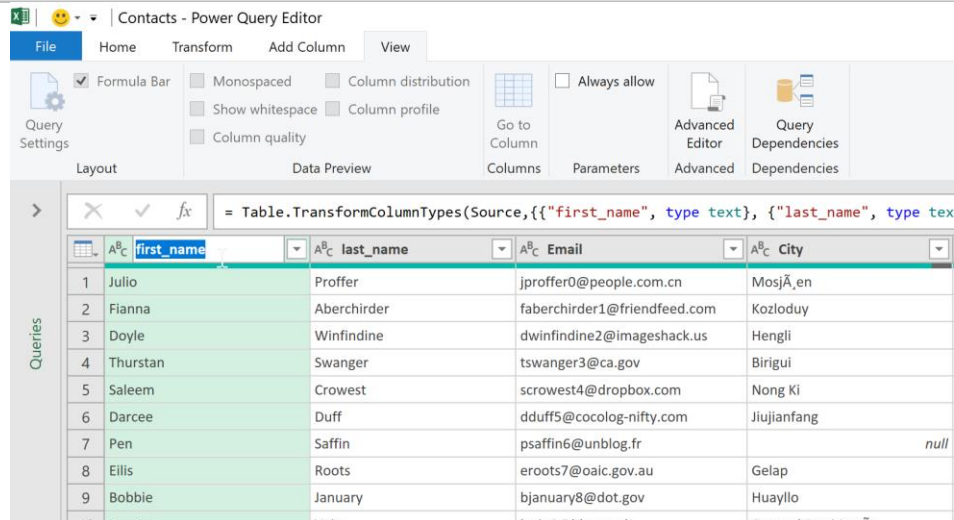
	A	B	C	D	E	F	G	H	I	J
1	first_name	last_name	Email	City	Street	Nur Street	Nar Street	Suff	SSN	Telephone Number
2	Julio	Proffer	jproffer0@	MosjÃ,en	8 Buena	Vist	Place	319-62-20	558-331-5918	
3	Fianna	Aberchird	faberchird	Kozloduy	47 Briar	Crest	Place	112-39-34	365-960-6855	
4	Doyle	Winfindine	dwinfindir	Hengli	53 Bell	grove	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@	crJuiuanfang	96334	Redwing	Crossing	522-04-15	695-160-1859	
8	Pen	Saffin	psaffin6@	unblog.fr	5	B.chwood	Crossing	415-81-23	101-647-8844	
9	Ellis	Roots	eroots7@	cGelap	804 Victoria		Drive	426-70-33	919-393-0284	
10	Bobbie	January	bjanuary8	iHuayllo	3529 Corben		Junction	796-57-22	423-816-3767	
11	Lurette	Vain	lvain9@	btGeneral Sa	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	Energetich	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	Buckle	ebuckleed	Motong	26 Carpenter		Drive	188-92-61	801-904-9977	
16	Elise	Conti	econti@	rGaopai	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@	rPanakura	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

Screen Shots

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.



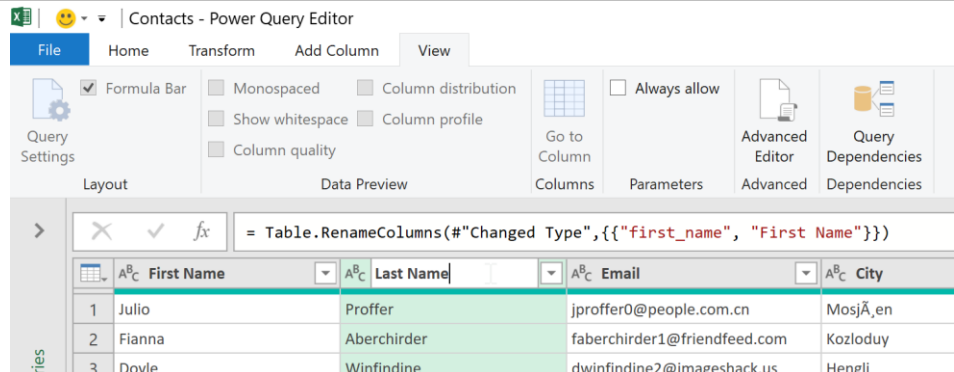
Contacts - Power Query Editor

File Home Transform Add Column View

Query Settings Layout Data Preview Columns Parameters Advanced Dependencies

Formula Bar: = 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
10	Lynette	Voia	lvia9@kbsc.co.kr	Caenel San MarÃ



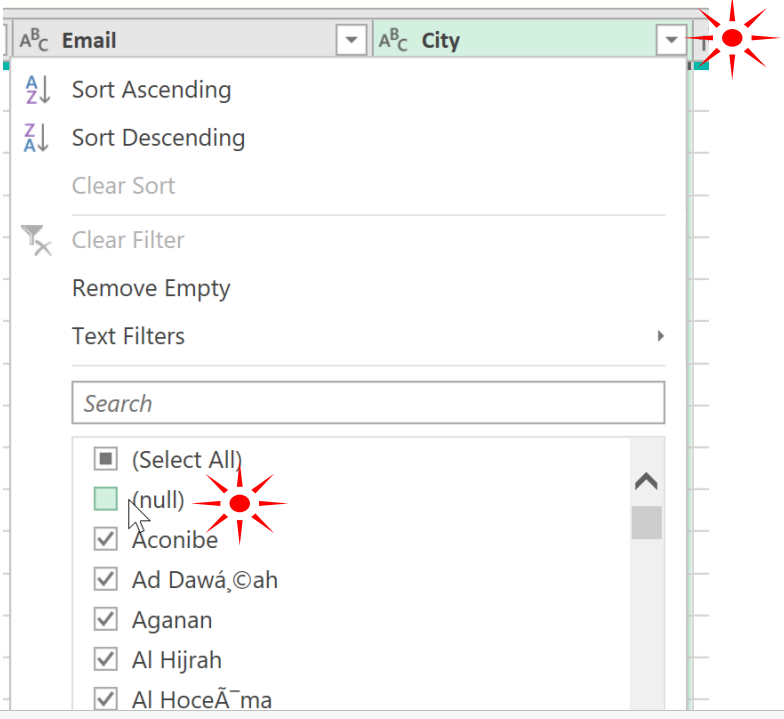
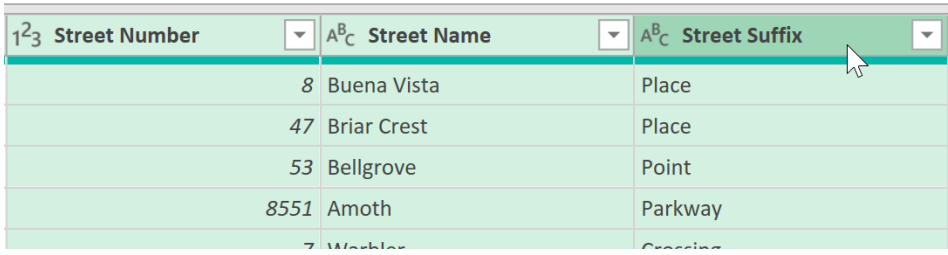
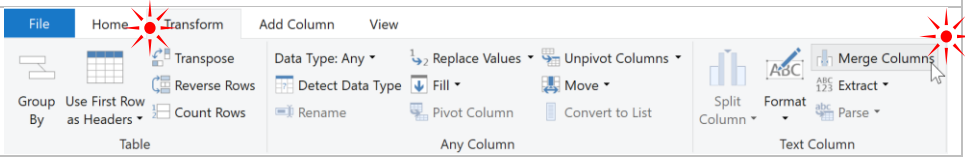
Contacts - Power Query Editor

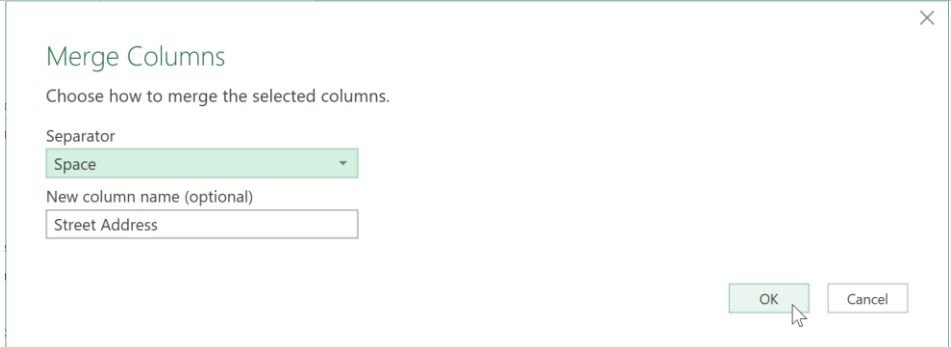
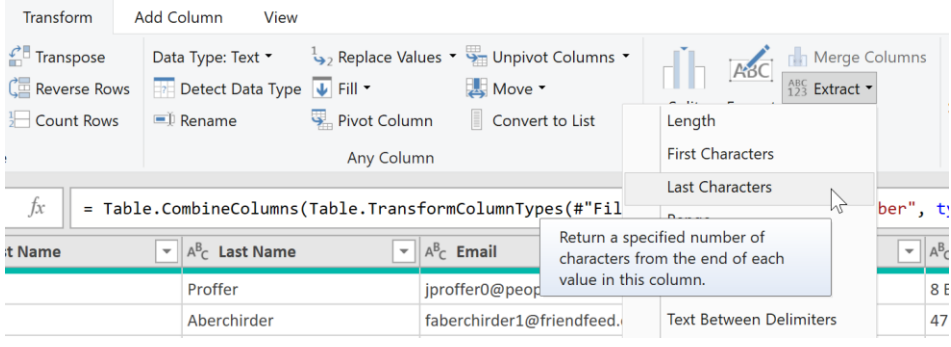
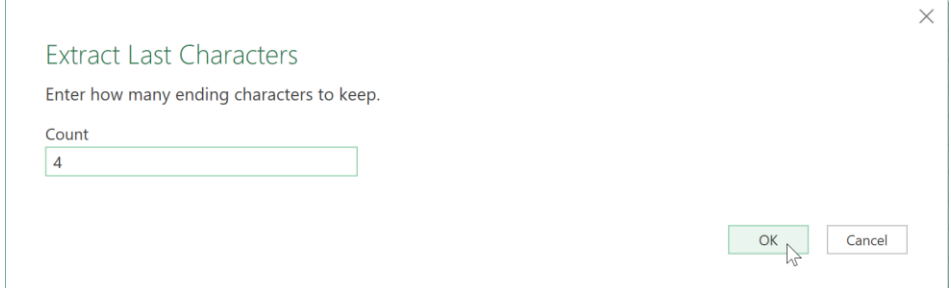
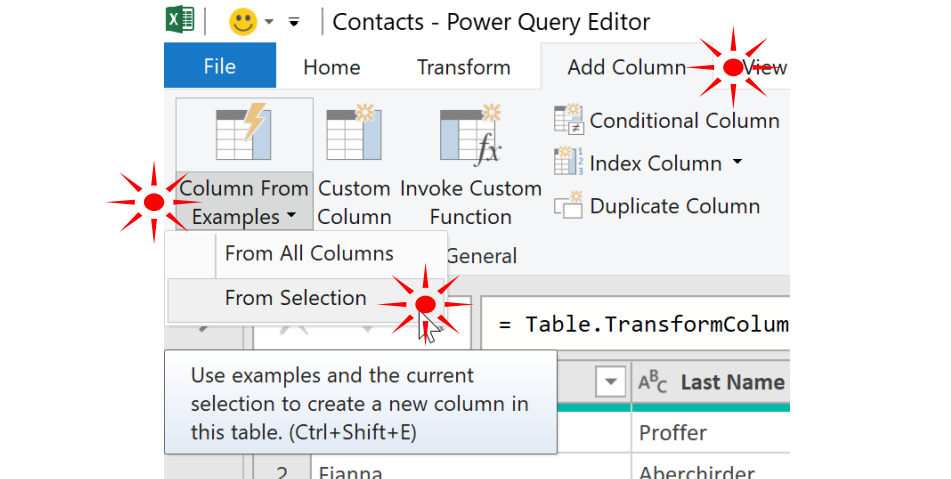
File Home Transform Add Column View

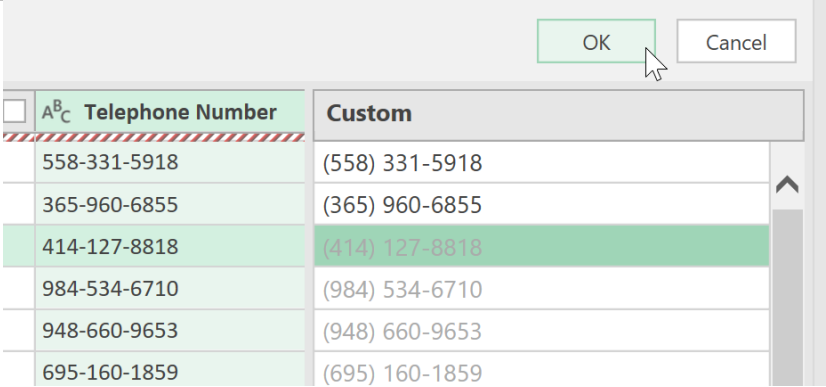
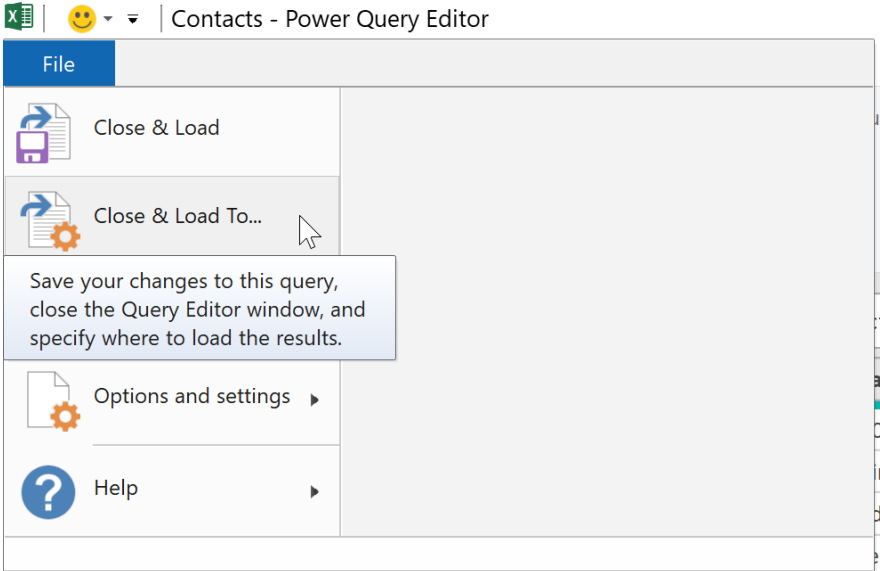
Query Settings Layout Data Preview Columns Parameters Advanced Dependencies

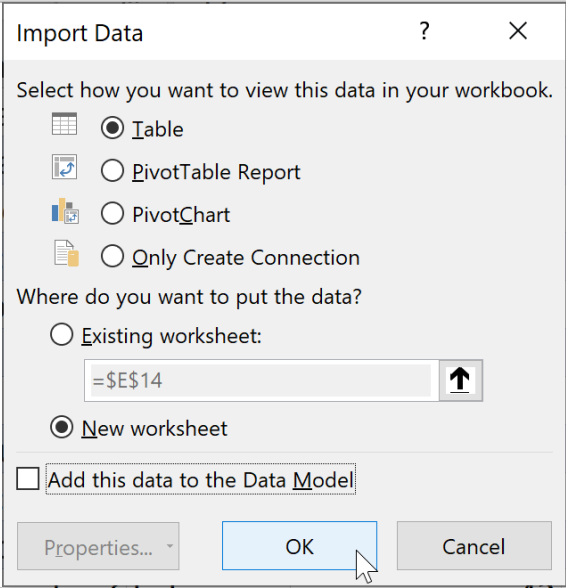
Formula Bar: = Table.RenameColumns(#"Changed Type",{{"first_name", "First Name"}})

	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
<div>12. Let's filter out the null values from City.</div> <div>13. Click on the dropdown arrow to the right of the City column.</div> <div>14. Uncheck (null)</div> <div>15. Then click the OK button at the bottom of the dropdown popup.</div>	
<div>16. Let's merge the columns Street Number, Street Name, and Street Suffix into one column called Street Address.</div> <div>17. While holding shift click Street Number, Street Name, and Street Suffix</div>	
<div>18. From on the Transform tab select Merge Columns.</div>	

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><thead><tr><th>A^BC Telephone Number</th><th>Custom</th></tr></thead><tbody><tr><td>558-331-5918</td><td>(558) 331-5918</td></tr><tr><td>365-960-6855</td><td>(365) 960-6855</td></tr><tr><td>414-127-8818</td><td>(414) 127-8818</td></tr><tr><td>984-534-6710</td><td>(984) 534-6710</td></tr><tr><td>948-660-9653</td><td>(948) 660-9653</td></tr><tr><td>695-160-1859</td><td>(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
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<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 & LoadClose & Load To...Options and settingsHelp <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>	