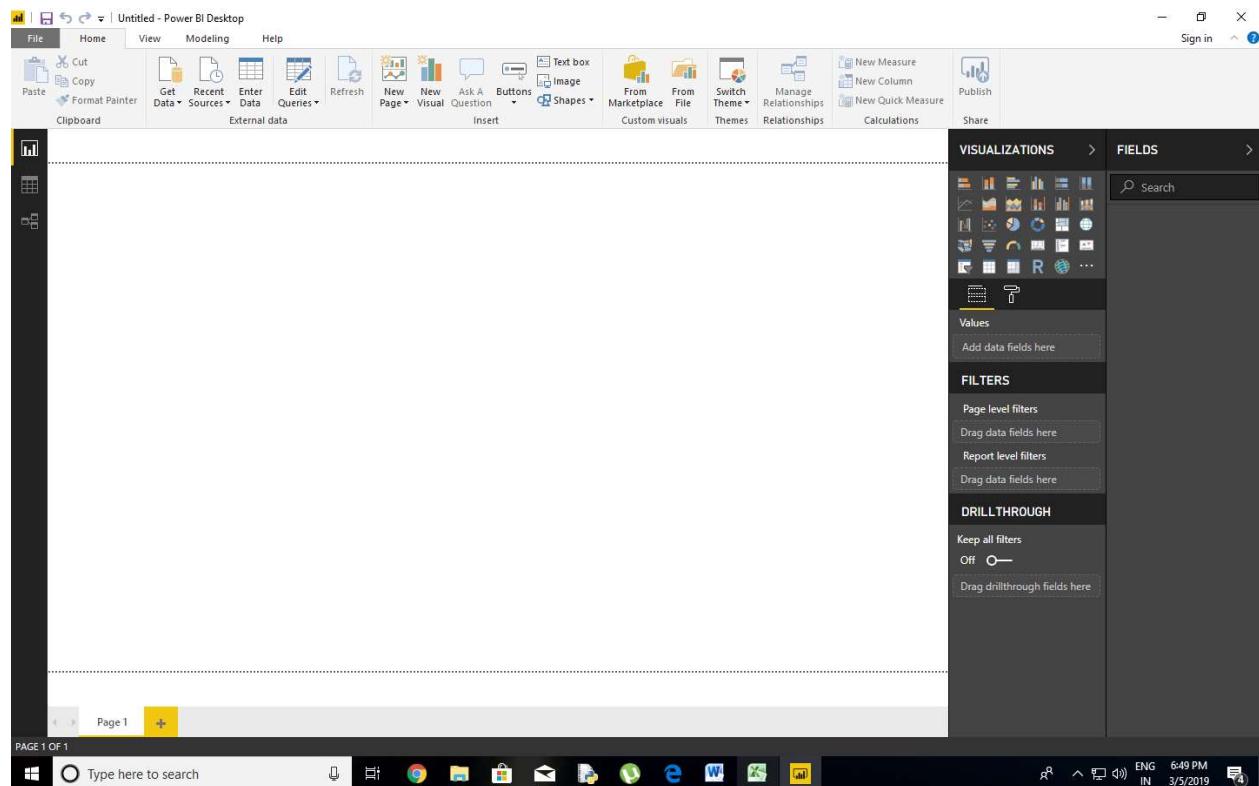
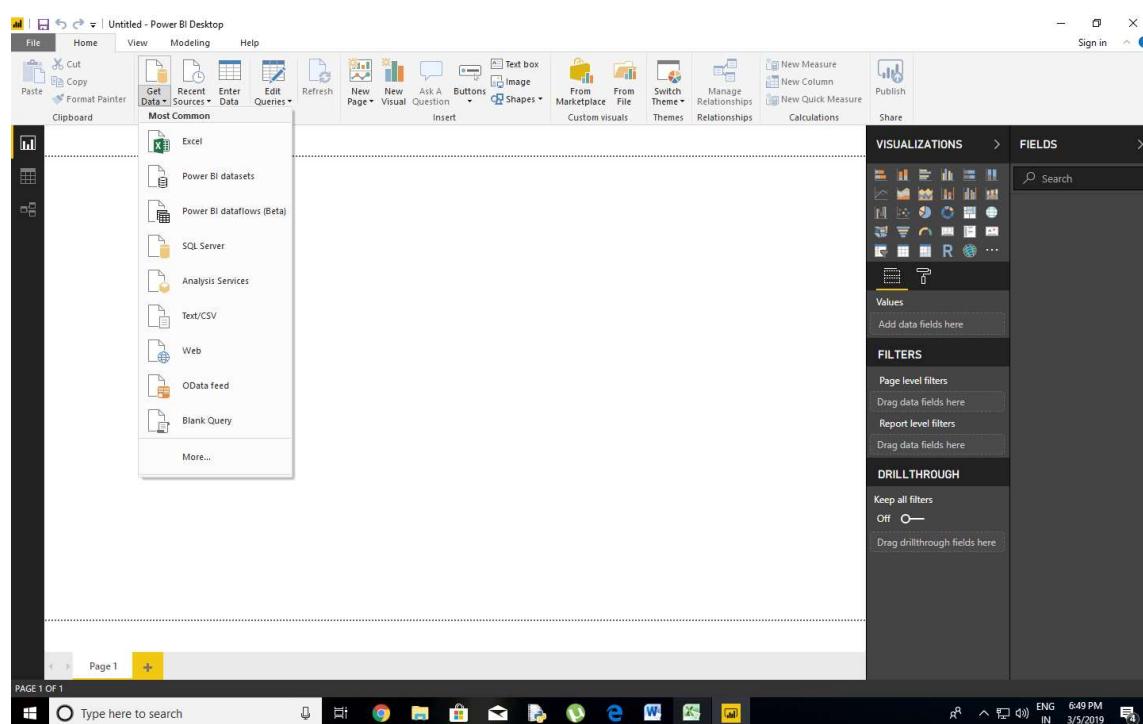


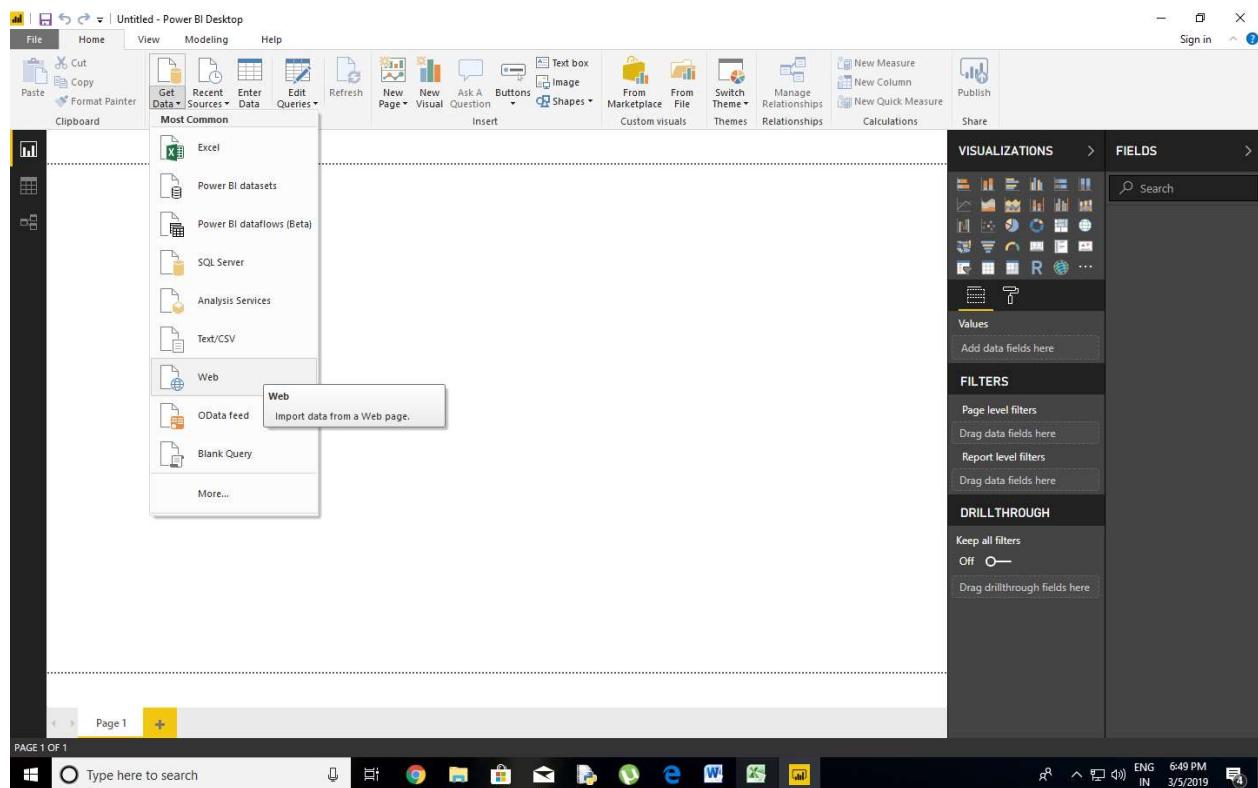
Practical 4(A): Create ETL Map and setup the schedule for execution.

Step 1: Open Power BI.

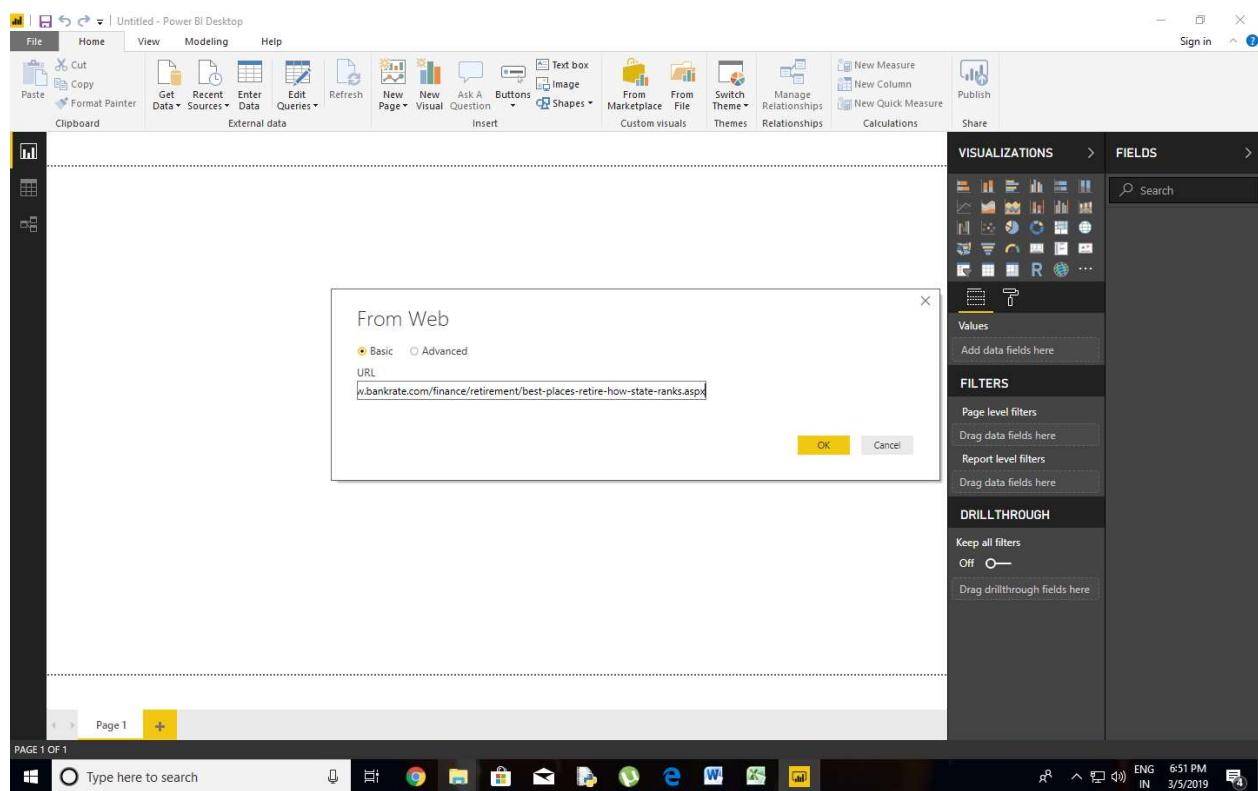


Step 2: Get Data → Web.

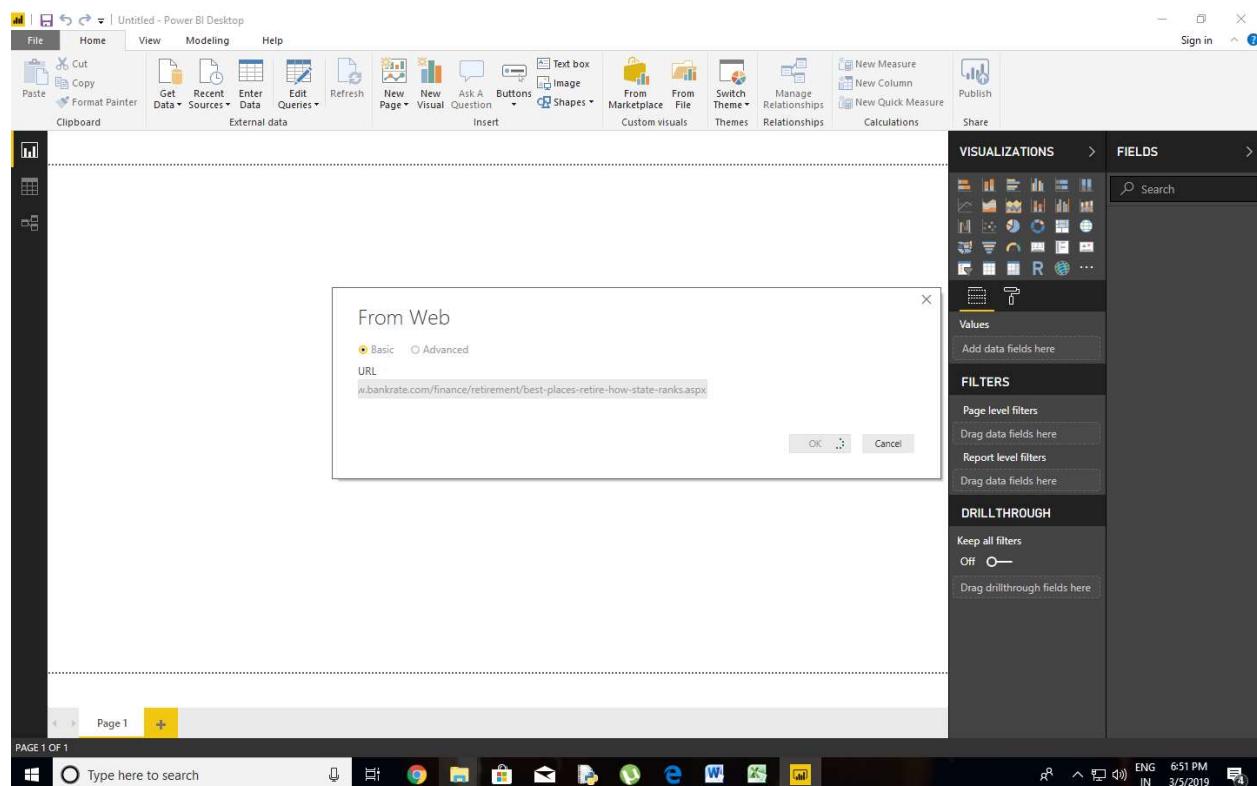




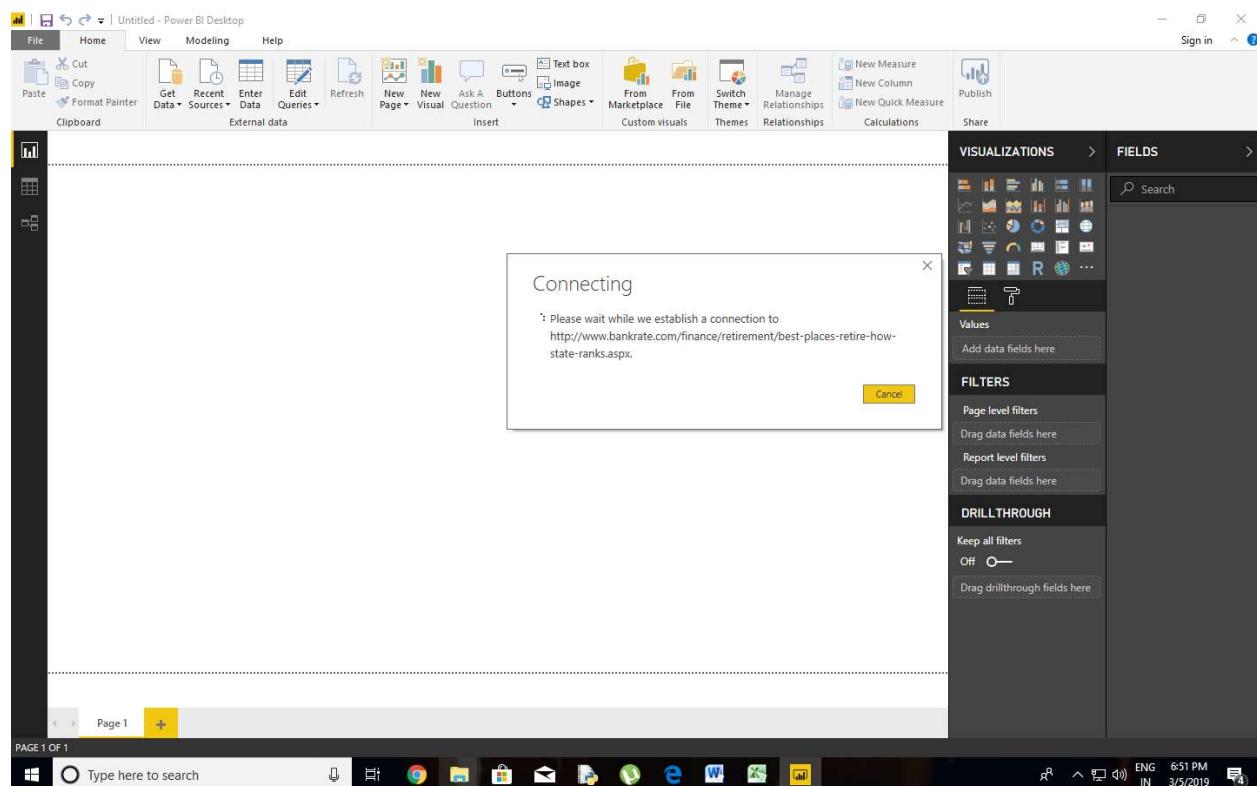
Step 3: Paste the link where your data resides.



Step 4: Click OK



Step 5: Connection might take a while.



Step 6: Select the table having your required data and click EDIT button.

The screenshot shows the Power BI Desktop interface with the 'Edit' dialog box open. The dialog displays a table titled 'Ranking of best and worst states for retirement'. The table has columns: State, Overall rank, Cost of living, Crime, and Culture. The data includes various US states with their respective ranks and scores. Below the table, there are 'Load' and 'Cancel' buttons. The background shows the Power BI desktop environment with a 'Navigator' pane and a 'FIELDS' pane.

State	Overall rank	Cost of living	Crime	Culture
South Dakota	1	19	21	1
Utah	2	25	22	2
Idaho	3	12	4	3
New Hampshire	4	43	1	4
Florida	5	27	33	20
Montana	6	23	26	1
North Carolina	6	12	29	4
Wyoming	8	28	9	10
Nebraska	9	17	18	2
Mississippi	10	1	23	4
Hawaii	11	48	35	1
Massachusetts	12	46	14	1
Virginia	13	30	4	1
Michigan	14	4	23	2
Missouri	15	3	41	2
Iowa	16	11	16	1
Colorado	17	35	28	1
Texas	17	20	36	4
Delaware	19	32	40	2
North Dakota	20	29	17	1
Tennessee	21	7	45	3

This screenshot is identical to the one above, showing the 'Edit' dialog box in Power BI Desktop. It displays the same table titled 'Ranking of best and worst states for retirement' with the same data and structure. The 'Load' and 'Cancel' buttons are visible at the bottom of the dialog.

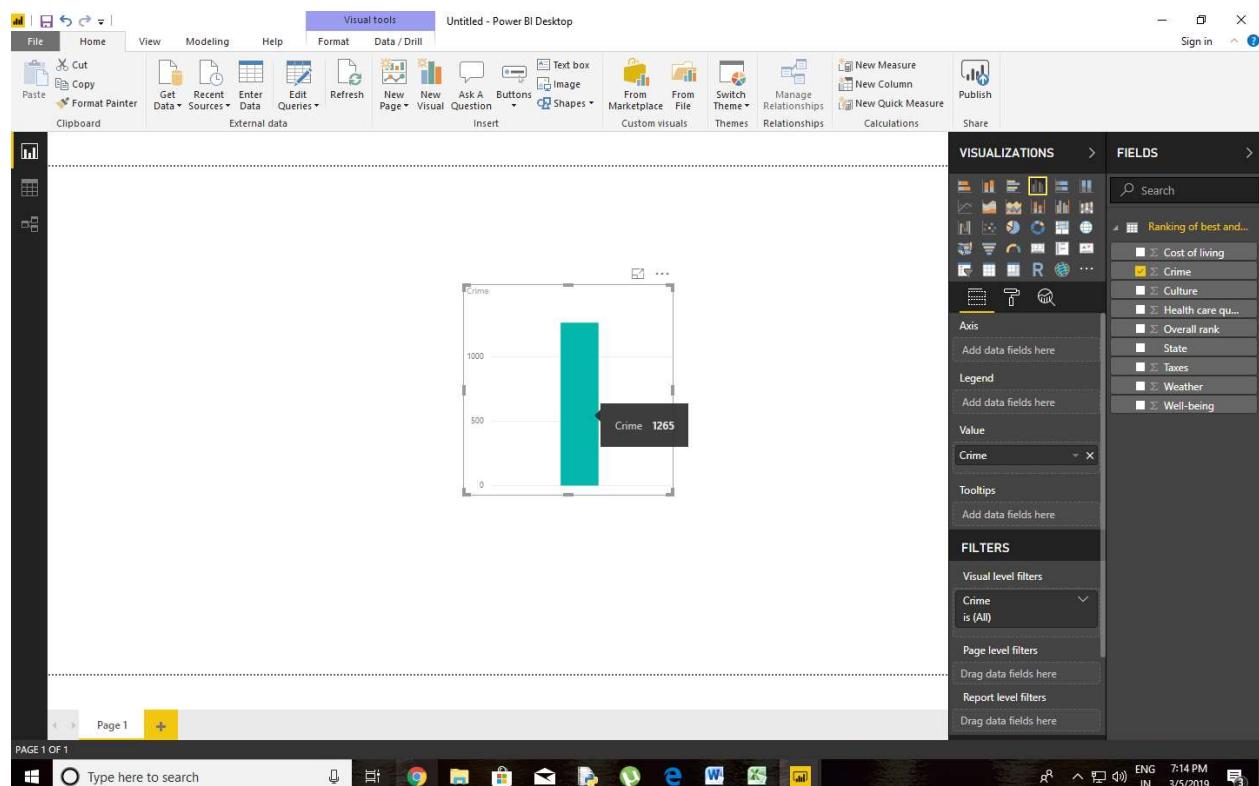
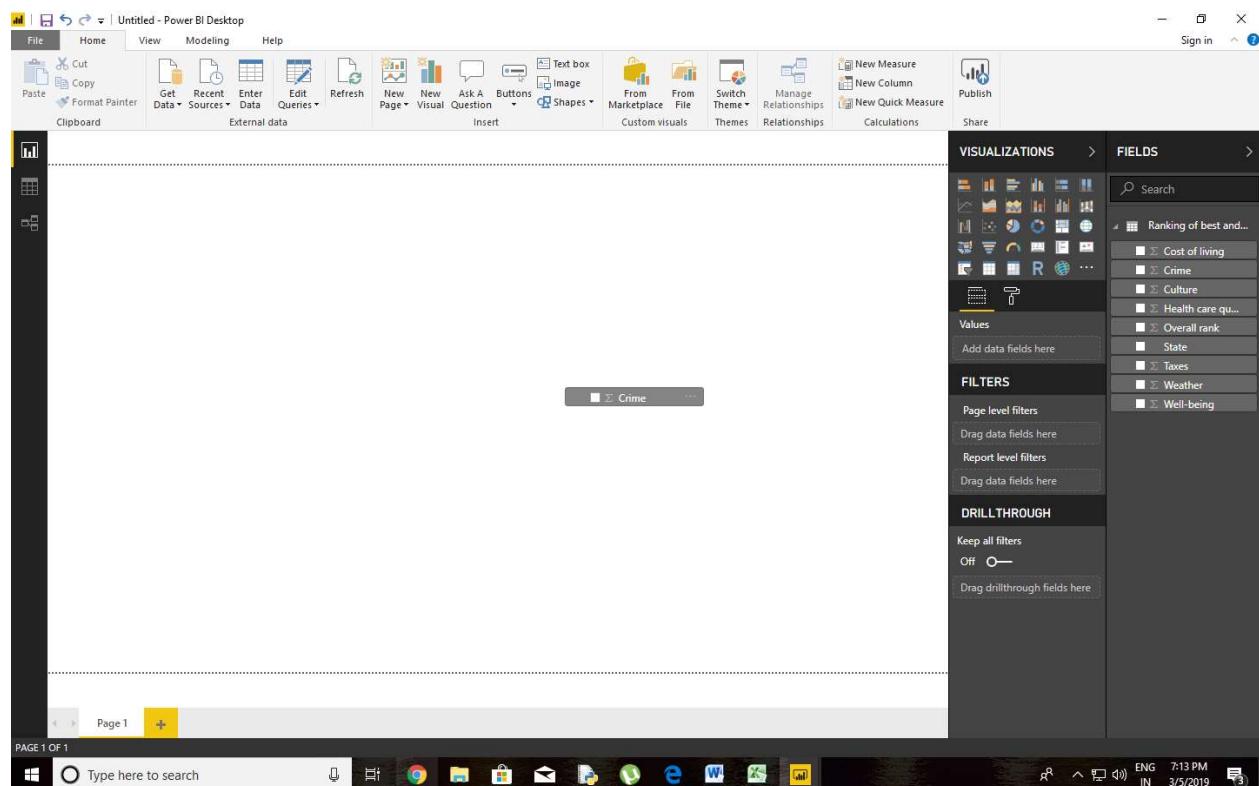
State	Overall rank	Cost of living	Crime	Culture
South Dakota	1	19	21	1
Utah	2	25	22	2
Idaho	3	12	4	3
New Hampshire	4	43	1	4
Florida	5	27	33	20
Montana	6	23	26	1
North Carolina	6	12	29	4
Wyoming	8	28	9	10
Nebraska	9	17	18	2
Mississippi	10	1	23	4
Hawaii	11	48	35	1
Massachusetts	12	46	14	1
Virginia	13	30	4	1
Michigan	14	4	23	2
Missouri	15	3	41	2
Iowa	16	11	16	1
Colorado	17	35	28	1
Texas	17	20	36	4
Delaware	19	32	40	2
North Dakota	20	29	17	1
Tennessee	21	7	45	3

Step 7: Right click on an column to change its type and select that type.

The screenshot shows the Power Query Editor interface with a table of data. A context menu is open over the 'Health care quality' column, specifically at the cell for South Dakota (value 12). The menu path 'Change Type' is highlighted. A submenu is open under 'Change Type' with several options: Whole Number (selected), Decimal Number, Fixed decimal number, Percentage, Date/Time, Date, Time, Date/Time/Timezone, Duration, Text, True/False, Binary, and Using Locale... . The 'APPLIED STEPS' pane on the right shows a step named 'Changed Type'.

This screenshot shows the same Power Query Editor session after the 'Changed Type' step has been applied. The 'Health care quality' column now contains whole numbers (12, 8, 20, etc.) instead of decimals. The 'APPLIED STEPS' pane now lists 'Source' and 'Navigation' under 'Changed Type'.

Step 8: Drag and drop the columns on workspace to see visual representation of data.



Step 9: Add Column→Custom Column.

The screenshot shows the Power Query Editor interface with a table containing data about states. A new column named 'Custom' has been added. The 'Custom Column' dialog is open, prompting for a new column name ('Custom') and a formula ('='). The formula bar contains the formula '='. An 'Available columns' dropdown menu lists the existing columns: State, Overall rank, Cost of living, Crime, Culture, Health care quality, Taxes, and Weather. The 'OK' button is highlighted in yellow.

Step 10: The Custom Column window will appear.

The screenshot shows the 'Custom Column' dialog box in Power BI Desktop. The dialog box has a title 'Custom Column' and contains a 'New column name' input field with the value 'Custom' and a 'Custom column formula' input field with the value '='. Below the formula is a link 'Learn about Power BI Desktop formulas'. At the bottom of the dialog box, there is a message 'No syntax errors have been detected.' with an 'OK' button. The background shows the Power BI desktop interface with a preview of the data and various settings.

Step 11: Rename the column and add the formula to calculate your new column data.

Custom Column

New column name: **New Rank**

Custom column formula:

```
=([Cost of living] + [Weather] + [Health care quality] + [Crime] + [Taxes] + [Culture] + [#Well-being]) / 7
```

Available columns:

- State
- Overall rank
- Cost of living
- Crime
- Culture
- Health care quality
- Taxes
- New Rank

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10 COLUMNS, 50 ROWS

	Cost of living	Crime	Culture	Health care quality	Taxes	Weather	Well-being	New Rank
1	19	21	10	12	2	38	1	12.875
2	25	22	15	10	8	32	9	15.125
3	12	4	31	8	20	41	8	15.5
4	43	1	9	5	7	43	7	14.375
5	27	33	26	36	4	2	12	17.5
6	23	26	7	19	6	45	10	17
7	12	29	40	30	11	12	19	19.125
8	28	9	16	22	1	46	16	17.25
9	17	18	25	12	25	29	17	17.875
10	1	23	48	26	24	5	47	21.75
11	48	35	3	17	27	1	3	16.75
12	46	14	2	3	22	34	11	16.5
13	30	4	17	24	31	16	18	17.5
14	4	23	27	32	12	40	32	21.25
15	3	41	28	35	16	17	39	22.375
16	11	16	18	12	40	33	21	18.875
17	35	28	12	15	18	37	6	18.875
18	20	36	43	44	13	4	13	21.625
19	32	40	24	6	15	18	40	21.875
20	29	17	14	8	30	49	5	19
21	7	45	36	46	14	13	29	23.75
22	39	2	8	4	28	47	24	19
23	9	30	42	38	9	25	42	24.375
24	6	44	47	17	35	7	38	24.25
25	14	31	34	32	23	19	33	23.25
26	41	3	1	2	47	44	2	17.5
27	21	15	19	6	38	42	27	21
28	26	11	23	1	46	48	4	19.875
29	34	43	39	27	21	11	15	23.75
30	^	^	^	^	^	^	^	^

PREVIEW DOWNLOADED AT 6:52 PM
10 COLUMNS, 50 ROWS

Step 12: Change the type of the newly calculated column data to whole number for regularity in data.

The screenshot shows the Power Query Editor interface with a table containing 30 rows and 10 columns. A context menu is open over the 'New Rank' column, specifically at the cell for row 1. The menu path 'ABC New Rank' is visible. The 'Change Type' option is highlighted in the menu, which contains options like Decimal Number, Fixed decimal number, Whole Number, Percentage, Date/Time, Date, Time, Duration, Text, True/False, Binary, and Using Locale... .

The screenshot shows the Power Query Editor interface after changing the type of the 'New Rank' column. The table now has 30 rows and 11 columns. The 'New Rank' column is now displayed as a whole number type. The 'QUERY SETTINGS' pane on the right shows the 'APPLIED STEPS' section, where 'Changed Type1' is listed under 'Added Custom2'. The status bar at the bottom indicates 'PREVIEW DOWNLOADED AT 6:52 PM'.

Step 13: Remove the irrelevant columns, you can select multiple columns by pressing CTRL key.

The screenshot shows the Power Query Editor interface with a table of data. The 'Transform' tab is selected, and the 'Remove Columns' button is highlighted. The 'APPLIED STEPS' pane on the right shows the step 'Removed Columns' has been applied. The table contains 10 columns and 50 rows, with the first column labeled 'Cost of living'.

	Cost of living	Crime	Culture	Health care quality	Taxes	Weather	Well-being	New Rank
1	19	21	10	12	2	38	1	
2	25	22	15	10	8	32	9	
3	12	4	31	8	20	41	8	
4	43	1	9	5	7	43	7	
5	27	33	26	36	4	2	12	
6	23	26	7	19	6	45	10	
7	12	29	40	30	11	12	19	
8	28	9	16	22	1	46	16	
9	17	18	25	12	25	29	17	
10	1	23	48	26	24	5	47	
11	48	35	3	17	27	1	3	
12	46	14	2	3	22	34	11	
13	30	4	17	24	31	16	18	
14	4	23	27	32	12	40	32	
15	3	41	28	35	16	17	39	
16	11	16	18	12	40	33	21	
17	35	28	12	15	18	37	6	
18	20	36	43	44	13	4	13	
19	32	40	24	6	15	18	40	
20	29	17	14	8	30	49	5	
21	7	45	36	46	14	13	29	
22	39	2	8	4	28	47	24	
23	9	30	42	38	9	25	42	
24	6	44	47	17	35	7	38	
25	14	31	34	32	23	19	33	
26	41	3	1	2	47	44	2	
27	21	15	19	6	38	42	27	
28	26	11	23	1	46	48	4	
29	34	43	39	27	21	11	15	
30								

Step 14: Move the removed columns action upwards to keep data consistency.

The screenshot shows the Power Query Editor interface with the same table as before. The 'Move Up' step is applied in the 'APPLIED STEPS' pane. The table now has 9 columns and 50 rows, with the first column labeled 'Overall rank'.

	Overall rank	Cost of living	Crime	Culture	Health care quality	Taxes	Weather	Well-being	New Rank
1	1	21	10	12	2	38	1		
2	2	22	15	10	8	32	9		
3	3	4	31	8	20	41	8		
4	4	1	9	5	7	43	7		
5	5	33	26	36	4	2	12		
6	6	26	7	19	6	45	10		
7	6	29	40	30	11	12	19		
8	8	9	16	22	1	46	16		
9	9	18	25	12	25	29	17		
10	10	23	48	26	24	5	47		
11	11	35	3	17	27	1	3		
12	12	14	2	3	22	34	11		
13	13	4	17	24	31	16	18		
14	14	23	27	32	12	40	32		
15	15	41	28	35	16	17	39		
16	16	16	18	12	40	33	21		
17	17	28	12	15	18	37	6		
18	17	36	43	44	13	4	13		
19	19	40	24	6	15	18	40		
20	20	17	14	8	30	49	5		
21	21	45	36	46	14	13	29		
22	22	2	8	4	28	47	24		
23	22	30	42	38	9	25	42		
24	24	44	47	17	35	7	38		
25	25	31	34	32	23	19	33		
26	26	3	1	2	47	44	2		
27	26	15	19	6	38	42	27		
28	28	11	23	1	46	48	4		
29	29	43	39	27	21	11	15		
30									

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Step 15: Due to the removal of columns our newly calculated column has values, modify the formula in the query bar to remove the error.

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Step 16: Drop down click on column → Sort Ascending (to sort data in ascending order)

The screenshot shows the Power Query Editor interface. A table titled "Ranking of best and worst..." is displayed. The columns include Cost of living, Crime, Culture, Health care quality, Taxes, Weather, Well-being, and New Rank. The "New Rank" column is currently selected. In the top ribbon, the "Transform" tab is active. On the far right, the "QUERY SETTINGS" pane is open, showing the query name "Ranking of best and worst states for retire". The "APPLIED STEPS" pane lists several steps, including "Changed Type1". The status bar at the bottom right indicates "PREVIEW DOWNLOADED AT 6:52 PM" and the date "3/5/2019".

Step 17: Replace the values if you want. Always agree to insert steps in between.

The screenshot shows the Power Query Editor interface. A table titled "Ranking of best and worst..." is displayed. The columns include State, Overall rank, Cost of living, Crime, Culture, Health care quality, Taxes, Weather, and New Rank. The "New Rank" column is currently selected. In the top ribbon, the "Transform" tab is active. A context menu is open over the "New Rank" column, with "Replace Values..." highlighted. The "APPLIED STEPS" pane lists "Changed Type2". The status bar at the bottom right indicates "PREVIEW DOWNLOADED AT 6:52 PM" and the date "3/5/2019".

Power Query Editor

Queries [1]

= Table.AddColumn(#"Removed Columns", "New Rank", each ([Weather] + [Health care quality] + [Crime] + [Taxes] + [Culture] + [#"Well-being"]) / 6)

State	Overall rank	Cost of living	Crime	Culture	Health care quality	Taxes	Weather
sas	25	14	31	34	32	23	19
mont	26	41	3	1	2	47	44
consin	26	21	15	19	6	38	42
nesota	28				46	48	
ona	29				21	11	
tucky	30				33	15	
nsviana	31				26	30	
Jersey	32				50	24	
it Virginia	33				19	22	
de Island	34				41	28	
necticut	35				44	31	
ka	36				3	50	
rgia	37	15	38	49	40	36	6
o	38	5	20	33	36	45	26
gon	39	37	27	22	42	10	35
ohoma	40	7	41	44	47	32	10
th Carolina	41	23	46	41	27	37	8
ada	42	33	38	32	47	5	27
hington	43	38	37	29	34	17	36
ils	44	36	25	35	30	29	23
	45						

Insert Step

Are you sure you want to insert a step? Inserting an intermediate step may affect subsequent steps, which could cause your query to break.

QUERY SETTINGS

Name: Ranking of best and worst states for retire

APPLIED STEPS

- Source
- Navigation
- Changed Type
- Added Custom
- Removed Columns
- Added Custom1
- Removed Columns1
- Removed Columns2
- Added Custom2
- Changed Type2
- Sorted Rows

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3/5/2019

Power Query Editor

Queries [1]

= Table.AddColumn(#"Removed Columns", "New Rank", each ([Weather] + [Health care quality] + [Crime] + [Taxes] + [Culture] + [#"Well-being"]) / 6)

State	Overall rank	Cost of living	Crime	Culture	Health care quality	Taxes	Weather
sas	25	14	31	34	32	23	19
mont	26				44		
consin	27				42		
nesota	28				48		
ona	29				11		
tucky	30				15		
nsviana	31				30		
Jersey	32				24		
it Virginia	33				22		
de Island	34				28		
necticut	35				31		
ka	36				50		
rgia	37				6		
o	38				26		
gon	39	37	27	22	42	10	35
ohoma	40	7	41	44	47	32	10
th Carolina	41	23	46	41	27	37	8
ada	42	33	38	32	47	5	27
hington	43	38	37	29	34	17	36
ils	44	36	25	35	30	29	23
	45						

Replace Values

Replace one value with another in the selected columns.

Value To Find: 11
Replace With: 2

QUERY SETTINGS

Name: Ranking of best and worst states for retire

APPLIED STEPS

- Source
- Navigation
- Changed Type
- Added Custom
- Removed Columns
- Added Custom1
- Removed Columns1
- Removed Columns2
- Added Custom2
- Changed Type2
- Sorted Rows

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3/5/2019

Step 18: Open one more data file to merge it with our current data. Import from web again.

The screenshot shows the Power Query Editor interface. In the 'Queries' list, 'Ranking of best and worst states for retire' is selected. The preview pane displays a table with columns: State, Overall rank, Cost of living, Crime, Culture, Health care quality, Taxes, and Weather. The 'Applied Steps' pane on the right lists several steps, including 'Replaced Value' and 'Changed Type2'. The status bar at the bottom indicates 'PREVIEW DOWNLOADED AT 6:52 PM'.

This screenshot shows the Power Query Editor with a 'From Web' dialog box overlaid. The dialog box contains a table with columns: State, Overall rank, Cost of living, Crime, Culture, Health care quality, Taxes, and Weather. Below the table, there are options for 'Basic' or 'Advanced' mode and a URL input field containing 'http://en.wikipedia.org/wiki/List_of_U.S._state_abbreviations'. The 'OK' button is highlighted. The main Power Query Editor window shows the same table as the previous screenshot. The status bar at the bottom indicates 'PREVIEW DOWNLOADED AT 6:52 PM'.

Ranking of best and worst states for retire

Connecting

Please wait while we establish a connection to http://en.wikipedia.org/wiki/List_of_U.S._state_abbreviations.

Cancel

PREVIEW DOWNLOADED AT 6:52 PM

Step 19: Select the appropriate table.

Ranking of best and worst states for retire

Codes and abbreviations for U.S. states, federal district, territories and D.C.

Header Name and status

Codes: ISOISO 3166 codes (2-letter, 3-letter, and 3-digit codes from ISO Alabama

Codes: ISOISO 3166 codes (2-letter, 3-letter, and 3-digit codes from ISO Alaska

Codes: ISOISO 3166 codes (2-letter, 3-letter, and 3-digit codes from ISO Arizona

Codes: ISOISO 3166 codes (2-letter, 3-letter, and 3-digit codes from ISO Arkansas

Codes: ISOISO 3166 codes (2-letter, 3-letter, and 3-digit codes from ISO California

Codes: ISOISO 3166 codes (2-letter, 3-letter, and 3-digit codes from ISO Colorado

Codes: ISOISO 3166 codes (2-letter, 3-letter, and 3-digit codes from ISO Connecticut

Codes: ISOISO 3166 codes (2-letter, 3-letter, and 3-digit codes from ISO Delaware

Codes: ISOISO 3166 codes (2-letter, 3-letter, and 3-digit codes from ISO District of Columbia

Codes: ISOISO 3166 codes (2-letter, 3-letter, and 3-digit codes from ISO Florida

Codes: ISOISO 3166 codes (2-letter, 3-letter, and 3-digit codes from ISO Georgia

Codes: ISOISO 3166 codes (2-letter, 3-letter, and 3-digit codes from ISO Hawaii

Codes: ISOISO 3166 codes (2-letter, 3-letter, and 3-digit codes from ISO Idaho

Codes: ISOISO 3166 codes (2-letter, 3-letter, and 3-digit codes from ISO Illinois

Codes: ISOISO 3166 codes (2-letter, 3-letter, and 3-digit codes from ISO Indiana

Codes: ISOISO 3166 codes (2-letter, 3-letter, and 3-digit codes from ISO Iowa

Codes: ISOISO 3166 codes (2-letter, 3-letter, and 3-digit codes from ISO Kansas

Add table using examples OK Cancel

PREVIEW DOWNLOADED AT 6:52 PM

Step 20: Make data relevant by adjusting its headers properly.

The screenshot shows the Power Query Editor interface with two queries loaded. The second query, 'Codes and abbreviations...', is selected. A context menu is open over the first row of the table, specifically over the header 'Codes: ISOISO 3166 codes (2-letter, 3-letter, and 3-digit codes from I...'. The menu is titled 'Remove Top Rows' and includes options: 'Remove Bottom N Rows', 'Remove Top N Rows from this table', 'Remove Alternates', 'Remove Duplicates', 'Remove Blank Rows', and 'Remove Errors'. The 'Remove Top N Rows from this table' option is highlighted. The 'APPLIED STEPS' pane on the right shows a step named 'Removed Top Rows'.

The screenshot shows the Power Query Editor interface with the 'Remove Top Rows' dialog box open. The dialog box is titled 'Remove Top Rows' and asks 'Specify how many rows to remove from the top.' Below this, there is a text input field labeled 'Number of rows' containing the value '4'. At the bottom of the dialog box are 'OK' and 'Cancel' buttons. The background shows the same Power Query Editor interface as the previous screenshot, with the 'Codes and abbreviations...' query selected and the 'APPLIED STEPS' pane showing the 'Removed Top Rows' step.

Step 21: Reduce the data to avoid redundancy.

The screenshot shows the Power Query Editor interface with two queries in the Queries [2] pane. The top query is a formula: `= Table.Skip(#"Changed Type", 2)`. The bottom query is labeled "Codes and abbreviations..." and has a preview table showing ISO codes and state abbreviations. A context menu is open over the preview table, with the "Remove Top Rows" option highlighted. A tooltip for this option says "Remove the bottom N rows from this table." The "APPLIED STEPS" pane on the right shows a step named "Removed Top Rows".

The screenshot shows the Power Query Editor interface with the same setup as the previous one. A dialog box titled "Remove Bottom Rows" is open, prompting the user to "Specify how many rows to remove from the bottom." An input field shows the value "24". Below the input field are buttons for "OK" and "Cancel". The "APPLIED STEPS" pane still shows the "Removed Top Rows" step.

Step 22: Our data doesn't have federal district, remove it by right clicking on the column of states and uncheck federal district.

The screenshot shows the Power Query Editor interface with two queries in the 'Queries [2]' pane. The top query is a formula: `= Table.RemoveLastN(#"Removed Top Rows", 26)`. The bottom query is a header row. The 'APPLIED STEPS' pane on the right shows the step `Removed Top Rows` applied. A context menu is open over the 'State' column in the bottom table, with the 'Federal district' option checked. The status bar at the bottom indicates 'PREVIEW DOWNLOADED AT 8:35 PM'.

The screenshot shows the Power Query Editor interface with two queries in the 'Queries [2]' pane. The top query is a formula: `= Table.SelectRows(#"Removed Bottom Rows", each ([Name and status of region] >> "Federal district"))`. The bottom query is a header row. The 'APPLIED STEPS' pane on the right shows the steps `Removed Top Rows` and `Removed Bottom Rows` applied. A context menu is open over the 'State' column in the bottom table, with the 'Federal district' option unchecked. The status bar at the bottom indicates 'PREVIEW DOWNLOADED AT 8:35 PM'.

Step 23: Select and remove unnecessary columns.

The screenshot shows the Power Query Editor interface with two queries selected: "Ranking of best and worst states" and "Codes and abbreviations". The "Codes and abbreviations" query is currently being edited. A context menu is open over the "Other abbreviations" column, specifically the cell containing "Other abbreviations". The menu item "Remove columns from this table" is highlighted. The "APPLIED STEPS" pane on the right shows the step "Removed Bottom Rows" has been applied.

	ABC 123 ISO	ABC 123 ANSI	ABC 123 ANSI2	ABC 123 USPS	ABC 123 USCG	ABC 123 GPO	ABC 123 AP	ABC 123 Other abbreviations
1	null	null	null	null	null	GPO	AP	Other abbreviations
2	US	US	00		null	U.S.	U.S.	U.S.A.
3	USA 840							
4	US-AL	AL	01	AL	AL	Ala.	Ala.	
5	US-AK	AK	02	AK	AK	Alaska	Alaska	Alas.
6	US-AZ	AZ	04	AZ	AZ	Ariz.	Ariz.	Az.
7	US-AR	AR	05	AR	AR	Ark.	Ark.	
8	US-CA	CA	06	CA	CA	Calif.	Calif.	Ca., Cal.
9	US-CO	CO	08	CO	CO	Colo.	Colo.	Col.
10	US-CT	CT	09	CT	CT	Conn.	Conn.	Ct.
11	US-DE	DE	10	DE	DE	Del.	Del.	De.
12	US-FL	FL	12	FL	FL	Fla.	Fla.	Fl., Flor.
13	US-GA	GA	13	GA	GA	Ga.	Ga.	Geo.
14	US-HI	HI	15	HI	HI	Hawaii	Hawaii	H.I.
15	US-ID	ID	16	ID	ID	Idaho	Idaho	Id., Ida.
16	US-IL	IL	17	IL	IL	Ill.	Ill.	Ill., Ills., Ill's
17	US-IN	IN	18	IN	IN	Ind.	Ind.	In.
18	US-IA	IA	19	IA	IA	Iowa	Iowa	Ia., Ioa.
19	US-KS	KS	20	KS	KS	Kans.	Kan.	Ks., Ka.
20	US-KY	KY	21	KY	KY	Ky.	Ky.	Ken., Kent.
21	US-LA	LA	22	LA	LA	La.	La.	
22	US-ME	ME	23	ME	ME	Maine	Maine	Me.
23	US-MD	MD	24	MD	MD	Md.	Md.	
24	US-MA	MA	25	MA	MA	Mass.	Mass.	

Step 24: Rename columns.

The screenshot shows the Power Query Editor interface with the same two queries selected. The "Codes and abbreviations" query is being edited. A context menu is open over the "US-KS" column, specifically the cell containing "KS". The menu item "Rename..." is highlighted. The "APPLIED STEPS" pane shows the step "Removed Columns" has been applied.

	ABC 123 ISO	ABC 123 ANSI	ABC 123 ANSI2	ABC 123 USPS	ABC 123 USCG	ABC 123 GPO	ABC 123 AP	ABC 123 Other abbreviations
1	null	null	null	null	null	GPO	AP	Other abbreviations
2	United States of America	US	USA	840				
3	Alabama	US-AL	Add Column From Examples...					
4	Alaska	US-AK	Remove Duplicates					
5	Arizona	US-AZ	Remove Errors					
6	Arkansas	US-AR	Change Type					
7	California	US-CA	Transform					
8	Colorado	US-CC						
9	Connecticut	US-CT	Replace Values...					
10	Delaware	US-DE	Replace Errors...					
11	Florida	US-FL	Split Column					
12	Georgia	US-GA	Group By...					
13	Hawaii	US-HI	Fill					
14	Idaho	US-ID	Unpivot Columns					
15	Illinois	US-IL	Unpivot Other Columns					
16	Indiana	US-IN	Unpivot Only Selected Columns					
17	Iowa	US-IA						
18	Kansas	US-KS	Rename...					
19	Kentucky	US-KY	Move					
20	Louisiana	US-LA	Drill Down					
21	Maine	US-ME	Add as New Query					
22	Maryland	US-MD						
23	Massachusetts	US-MA						
24	Michigan	US-MI						
25	Minnesota	US-MN						

Queries [2]

= Table.Skip(#"Renamed Columns",1)

	ABC Name and status of region	USC StateCodes
1.	United States of America	US
		USA
		840
2.	Alabama	US-AL
3.	Alaska	US-AK
4.	Arizona	US-AZ
5.	Arkansas	US-AR
6.	California	US-CA
7.	Colorado	US-CO
8.	Connecticut	US-CT
9.	Delaware	US-DE
10.	Florida	US-FL
11.	Georgia	US-GA
12.	Hawaii	US-HI
13.	Idaho	US-ID
14.	Illinois	US-IL
15.	Indiana	US-IN
16.	Iowa	US-IA
17.	Kansas	US-KS
18.	Kentucky	US-KY
19.	Louisiana	US-LA
20.	Maine	US-ME
21.	Maryland	US-MD
22.	Massachusetts	US-MA
23.	Michigan	US-MI
24.	Minnesota	US-MN
25.	Mississippi	US-MS

2 COLUMNS, 51 ROWS

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Step 25: Combine → Merge Queries → Merge Queries as New.

Queries [2]

= Table.Sort(#"Changed Type2",{{"New Rank", Order.Ascending}})

	A ¹ State	t ² Overall rank	t ² Cost of living	t ² Crime	t ² Culture	t ² Health care quality	t ² Taxes	t ² Weather
1.	New Hampshire	4	43	1	9	5	7	
2.	Massachusetts	12	46	14	2	3	22	
3.	South Dakota	1	19	21	10	12	2	
4.	Hawaii	11	48	35	3	17	27	
5.	Vermont	26	41	3	1	2	47	
6.	Utah	2	25	22	15	10	8	
7.	Wyoming	8	28	9	16	22	1	
8.	Virginia	13	30	4	17	24	31	
9.	Idaho	3	12	4	31	8	20	
10.	Colorado	17	35	28	12	15	18	
11.	Maine	22	39	2	8	4	28	
12.	Florida	5	27	33	26	36	4	
13.	Montana	6	23	26	7	19	6	
14.	North Dakota	20	29	17	14	8	30	
15.	Nebraska	9	17	18	25	12	25	
16.	Connecticut	35	44	4	4	23	44	
17.	New Jersey	32	42	4	11	10	50	
18.	Minnesota	28	26	11	23	1	46	
19.	Iowa	16	11	16	18	12	40	
20.	Rhode Island	34	40	8	6	16	41	
21.	Wisconsin	26	21	15	19	6	38	
22.	Delaware	19	32	40	24	6	15	
23.	California	45	49	32	20	19	48	
24.	North Carolina	6	12	29	40	30	11	
25.	Pennsylvania	31	31	12	30	21	26	
26.	Arizona	29	34	43	39	27	21	

10 COLUMNS, 50 ROWS

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Step 26: Choose your Tables to merge and press OK.

Merge

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

Ranking of best and worst states for retirement

State	Overall rank	Cost of living	Crime	Culture	Health care quality	Taxes	Weather	W
New Hampshire	4	43	1	9	5	7	43	
Massachusetts	12	46	14	2	3	22	34	
South Dakota	1	19	21	10	12	2	38	
Hawaii	11	48	35	3	17	27	1	
Vermont	26	41	3	1	2	47	44	
Utah								
Wyoming								
Virginia								
Idaho								
Colorado								
Maine								
Florida								
Montana								
North Dakota								
Nebraska								
Connecticut								
New Jersey								
Minnesota								
Iowa								
Rhode Island								
Wisconsin								
Delaware								
California	45	49	32	20	19	48		
North Carolina	6	12	29	40	30	11		
Pennsylvania	31	31	12	30	21	26		
Arizona	29	34	43	39	27	21		

Codes and abbreviations for U S stat...

Join Kind: Left Outer (all from first, matching from second)

OK Cancel

QUERY SETTINGS

Name: Ranking of best and worst states for retire

APPLIED STEPS

- Source
- Navigation
- Changed Type
- Added Custom
- Removed Columns
- Added Custom1
- Removed Columns1
- Removed Columns2
- Added Custom2
- Replaced Value
- Changed Type2
- Sorted Rows

Merge

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

Ranking of best and worst states for retirement

State	Overall rank	Cost of living	Crime	Culture	Health care quality	Taxes	Weather	W
New Hampshire	4	43	1	9	5	7	43	
Massachusetts	12	46	14	2	3	22	34	
South Dakota	1	19	21	10	12	2	38	
Hawaii	11	48	35	3	17	27	1	
Vermont	26	41	3	1	2	47	44	
Utah								
Wyoming								
Virginia								
Idaho								
Colorado								
Maine								
Florida								
Montana								
North Dakota								
Nebraska								
Connecticut								
New Jersey								
Minnesota								
Iowa								
Rhode Island								
Wisconsin								
Delaware								
California	45	49	32	20	19	48		
North Carolina	6	12	29	40	30	11		
Pennsylvania	31	31	12	30	21	26		
Arizona	29	34	43	39	27	21		

Codes and abbreviations for U S stat...

Join Kind: Left Outer (all from first, matching from second)

OK Cancel

QUERY SETTINGS

Name: Ranking of best and worst states for retire

APPLIED STEPS

- Source
- Navigation
- Changed Type
- Added Custom
- Removed Columns
- Added Custom1
- Removed Columns1
- Removed Columns2
- Added Custom2
- Replaced Value
- Changed Type2
- Sorted Rows

Step 27: Here we just want to display the State Codes data from the entire table so we drop down click and select only that column.

The screenshot shows the Power Query Editor interface with two queries in the 'Queries [2]' pane. The first query is 'Ranking of best and worst states for retire'. The second query is 'Codes and abbreviations'. A context menu is open over the 'Codes and abbreviations' query, specifically over the 'StateCodes' column. A dialog box titled 'Search Columns to Expand' is displayed, containing two radio buttons: 'Expand' (selected) and 'Aggregate'. Below this are two checkboxes: '(Select All Columns)' (checked) and '[StateCodes]' (checked). At the bottom of the dialog is a checked checkbox 'Use original column name as prefix'. The 'OK' button is highlighted in yellow.

The screenshot shows the Power Query Editor interface with the same two queries. The context menu over the 'Codes and abbreviations' query is now closed, and the 'Rename Columns' dialog box is open. It shows the formula = Table.RenameColumns(#"Expanded Codes and abbreviations for US states, federal district, territories, and other", {"StateCodes", "StateCodes"}). The 'OK' button is highlighted in yellow.