



Power Query

A ETL tool



Using Functions in Power Query

Power Query is a ETL tool (Extract Transform Load) which provide many function (Text Functions / Date Functions/ Number Functions)

Merge

Split

Change Case

Extract (left, right, substring, Delimiter)

The best part of Power Query is you do not have to write any formula.

To get the Power Query editor select the data source and click on Transform



Using Text Functions in Power Query

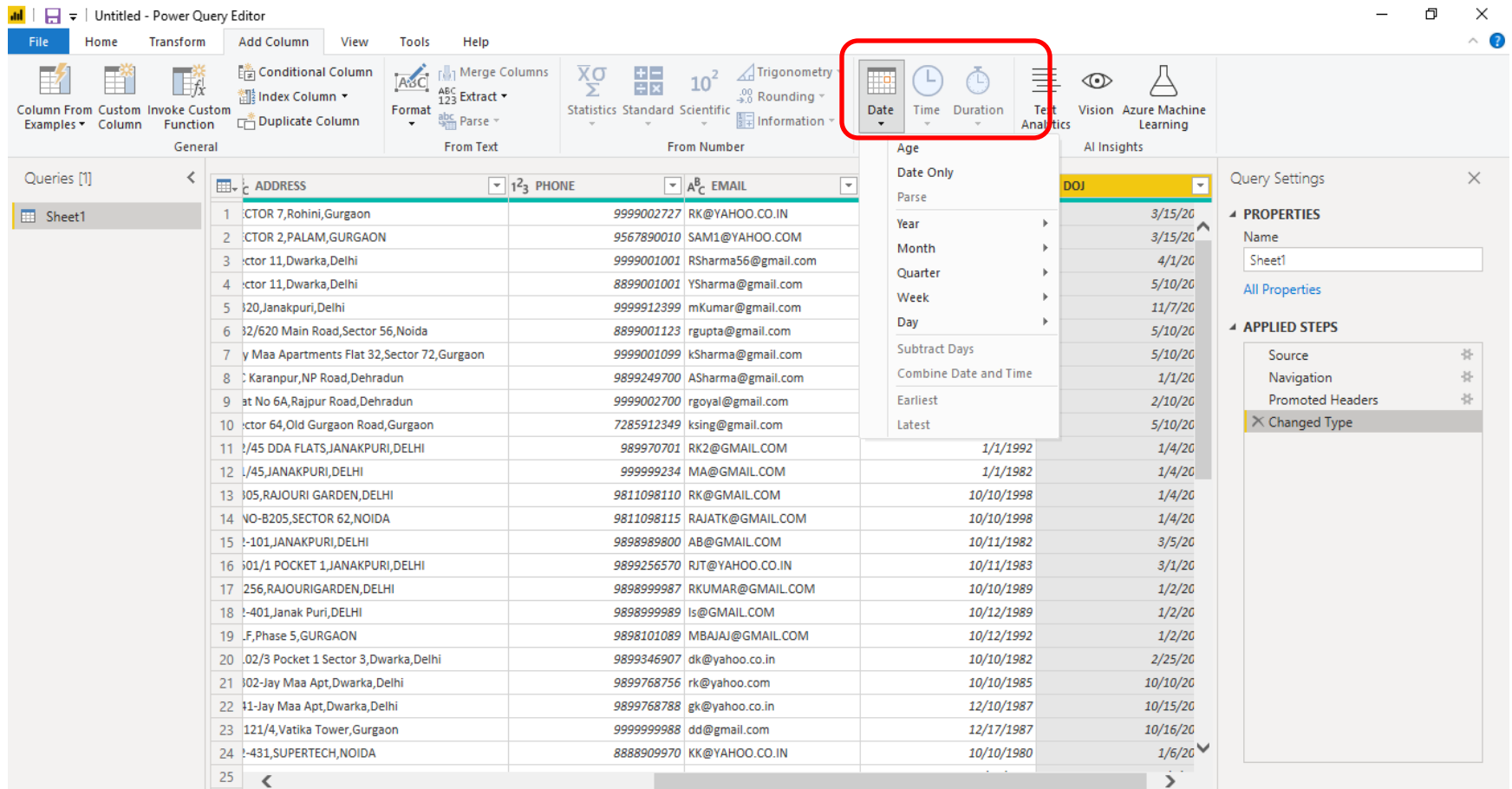
The screenshot displays the Power Query Editor interface. The 'Transform' tab is active, and the 'Text Column' group is highlighted with a red box. The 'Split Column' option is selected. The data table below shows columns for EID, NAME, FULL NAME, ADDRESS.1, ADDRESS.2, and CITY. The 'Query Settings' pane on the right shows the 'APPLIED STEPS' list, with 'Capitalized Each Word' selected.

	EID	NAME	FULL NAME	ADDRESS.1	ADDRESS.2	CITY
1	1001	RAMESH GUPTA	Ramesh Gupta	SECTOR 7	Rohini	Gurgaon
2	1002	Sandeep Sharma	Sandeep Sharma	SECTOR 2	PALAM	GURGAON
3	1003	Rajesh Sharma	Rajesh Sharma	Sector 11	Dwarka	Delhi
4	1004	Yogeshwar Sharma	Yogeshwar Sharma	Sector 11	Dwarka	Delhi
5	1005	Manoj Kumar	Manoj Kumar	B320	Janakpuri	Delhi
6	1006	Rohit Gupta	Rohit Gupta	A32/620 Main Road	Sector 56	Noida
7	1007	Kapil Sharma	Kapil Sharma	Jay Maa Apartments Flat 32	Sector 72	Gurgaon
8	1008	Archana Sharma	Archana Sharma	5C Karanpur	NP Road	Dehradun
9	1009	Ranjeeta Goyal	Ranjeeta Goyal	Flat No 6A	Rajpur Road	Dehradun
10	1010	Komal Singh	Komal Singh	Sector 64	Old Gurgaon Road	Gurgaon
11	1011	AMIT KAPOOR	Amit Kapoor	B2/45 DDA FLATS	JANAKPURI	DELHI
12	1012	MONIKA ARORA	Monika Arora	B1/45	JANAKPURI	DELHI
13	1013	ROHAN KUMAR	Rohan Kumar	B305	RAJOURI GARDEN	DELHI
14	1014	RAJAT KUMAR	Rajat Kumar	HNO-B205	SECTOR 62	NOIDA
15	1015	ABHISHEK SHARMA	Abhishek Sharma	C2-101	JANAKPURI	DELHI
16	1019	RAJAT KAPOOR	Rajat Kapoor	B501/1 POCKET 1	JANAKPURI	DELHI
17	1020	Rohan Kumar	Rohan Kumar	B-256	RAJOURIGARDEN	DELHI
18	1021	Lalit Sharma	Lalit Sharma	C2-401	Janak Puri	DELHI
19	1022	Monika Bajaj	Monika Bajaj	DLF	Phase 5	GURGAON
20	1023	Devender Kapoor	Devender Kapoor	E102/3 Pocket 1 Sector 3	Dwarka	Delhi
21	1024	Ravinder Kumar	Ravinder Kumar	B302-Jay Maa Apt	Dwarka	Delhi
22	1025	GAURAV GUPTA	Gaurav Gupta	D41-Jay Maa Apt	Dwarka	Delhi
23	1026	David	David	M121/4	Vatika Tower	Gurgaon
24	1027	KONIKA KAPOOR	Konika Kapoor	C2-431	SUPERTECH	NOIDA
25						

To get the Power Query editor select the data source and click on Transform



Using Date Functions in Power Query



The screenshot displays the Power Query Editor interface. The 'Date' function menu is open, showing options like 'Date Only', 'Parse', 'Year', 'Month', 'Quarter', 'Week', 'Day', 'Subtract Days', 'Combine Date and Time', 'Earliest', and 'Latest'. The 'Date' menu is highlighted with a red box. The main data table has columns: ADDRESS, PHONE, and EMAIL. The 'Query Settings' pane on the right shows the 'Properties' tab with 'Name' set to 'Sheet1' and 'Applied Steps' including 'Source', 'Navigation', 'Promoted Headers', and 'Changed Type'.

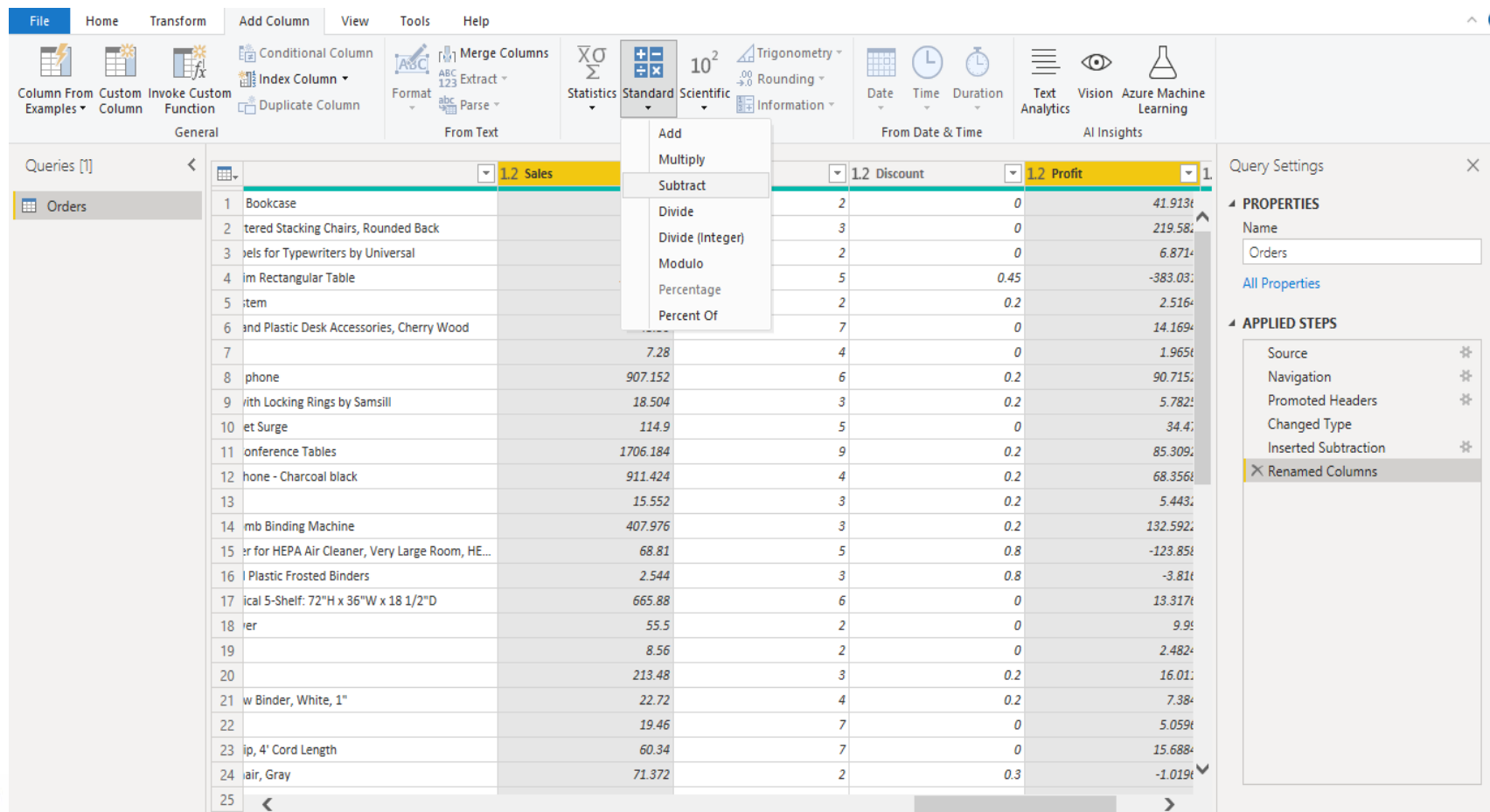
	ADDRESS	PHONE	EMAIL
1	CTOR 7,Rohini,Gurgaon	9999002727	RK@YAHOO.CO.IN
2	CTOR 2,PALAM,GURGAON	9567890010	SAM1@YAHOO.COM
3	ctor 11,Dwarka,Delhi	9999001001	RSharma56@gmail.com
4	ctor 11,Dwarka,Delhi	8899001001	YSharma@gmail.com
5	020,Janakpuri,Delhi	9999912399	mKumar@gmail.com
6	02/620 Main Road,Sector 56,Noida	8899001123	rgupta@gmail.com
7	y Maa Apartments Flat 32,Sector 72,Gurgaon	9999001099	kSharma@gmail.com
8	C Karanpur,NP Road,Dehradun	9899249700	ASharma@gmail.com
9	at No 6A,Rajpur Road,Dehradun	9999002700	rgoyal@gmail.com
10	ctor 64,Old Gurgaon Road,Gurgaon	7285912349	ksing@gmail.com
11	045 DDA FLATS,JANAKPURI,DELHI	989970701	RK2@GMAIL.COM
12	045,JANAKPURI,DELHI	999999234	MA@GMAIL.COM
13	005,RAJOURI GARDEN,DELHI	9811098110	RK@GMAIL.COM
14	NO-B205,SECTOR 62,NOIDA	9811098115	RAJATK@GMAIL.COM
15	01-101,JANAKPURI,DELHI	9898989800	AB@GMAIL.COM
16	001/1 POCKET 1,JANAKPURI,DELHI	9899256570	RJT@YAHOO.CO.IN
17	256,RAJOURIGARDEN,DELHI	9898999987	RKUMAR@GMAIL.COM
18	0401,Janak Puri,DELHI	9898999989	Is@GMAIL.COM
19	F,Phase 5,GURGAON	9898101089	MBAIAJ@GMAIL.COM
20	02/3 Pocket 1 Sector 3,Dwarka,Delhi	9899346907	dk@yahoo.co.in
21	002-Jay Maa Apt,Dwarka,Delhi	9899768756	rk@yahoo.com
22	011-Jay Maa Apt,Dwarka,Delhi	9899768788	gk@yahoo.co.in
23	121/4,Vatika Tower,Gurgaon	9999999988	dd@gmail.com
24	0431,SUPERTECH,NOIDA	8888909970	KK@YAHOO.CO.IN
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Date functions like Day, Month Year, Subtract, Day Name, Month Name, calculate Age



Using Number Functions in Power Query

In Power Query you can use around 32 calculations without writing any formula just simple button clicks. Add, Subtract, Multiply Divide, Percentage, Percentage of, Round, Sign, Is Even, Is Odd



The screenshot displays the Microsoft Power Query interface. The ribbon at the top includes tabs for File, Home, Transform, Add Column, View, Tools, and Help. The 'Add Column' tab is active, showing various calculation options. A context menu is open over the 'Add' button, listing functions: Add, Multiply, Subtract, Divide, Divide (Integer), Modulo, Percentage, and Percent Of. The main data area shows a table with columns for '1.2 Sales', '1.2 Discount', and '1.2 Profit'. The table contains 25 rows of data. The right sidebar shows the 'Query Settings' pane with 'Properties' and 'Applied Steps' sections.

	1.2 Sales	1.2 Discount	1.2 Profit
1	Bookcase	2	41.913
2	tered Stacking Chairs, Rounded Back	3	219.58
3	pels for Typewriters by Universal	2	6.871
4	im Rectangular Table	5	-383.03
5	stem	2	2.516
6	and Plastic Desk Accessories, Cherry Wood	7	14.169
7		4	1.965
8	phone	6	90.715
9	with Locking Rings by Samsill	3	5.782
10	et Surge	5	34.4
11	onference Tables	9	85.309
12	hone - Charcoal black	4	68.356
13		3	5.443
14	mb Binding Machine	3	132.592
15	er for HEPA Air Cleaner, Very Large Room, HE...	5	-123.85
16	Plastic Frosted Binders	3	-3.81
17	ical 5-Shelf: 72"H x 36"W x 18 1/2"D	6	13.317
18	er	2	9.9
19		2	2.482
20		3	16.01
21	w Binder, White, 1"	4	7.38
22		7	5.059
23	ip, 4' Cord Length	7	15.688
24	air, Gray	2	-1.019
25			



ASSIGNMENT



- Create a visual to display the average shipping days per state.
- Bifurcate the Regional sales count on the basis of profit & loss
- Create a visual to display the sales pattern on the basis of week day
- Create a employee code containing 1st character of 1st name, 1st character of last name and last 4 digits of EID.
- Create a visual to display Monthly Birthday Status of the employees



Appending Sheets in Power Query

Multiple sheets in Excel can be appended as a single sheet in Power BI.

Go To Append Queries -> Append Query as New -> Select The sheets to be appended -> Click Add -> Ok

The screenshot displays the Power Query 'Append' dialog box. The 'Available tables' list includes APR20, FEB20, JAN20, MAR20, and Sales2020. The 'Tables to append' list contains Sales2020. The 'Three or more tables' radio button is selected. The background shows a data table with the following structure:

Date	Policy Id	premium	Comm
1/1/2020	P0001	10000	1000
1/2/2020	P0002	30000	3000
1/3/2020			
1/4/2020			
1/5/2020			
1/6/2020			
1/7/2020			
1/8/2020			
1/9/2020			
1/10/2020			
1/11/2020			
2/1/2020			
2/2/2020			
2/3/2020			
2/4/2020			
2/5/2020			
2/6/2020			
2/7/2020			
2/8/2020			
2/9/2020			
2/10/2020			
3/1/2020			
3/2/2020			
3/3/2020	P0003	40000	4000
3/4/2020	P0004	20000	2000

Note: Columns Name should be same.

To display only the appended sheet in Power BI clear the ENABLE LOAD option for other sheets.



Merging Sheets in Power Query

Merging Sheets in Power Query can be considered as advanced lookup.

Go To Merge Queries -> Select The tables to be merged -> Select the common field -> Specify the join type -> Ok

Merge

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

SAL

EID	DEPT	DESI	SALARY
1001	OPS	Director	400000
1002	OPS	VP	250000
1003	ADMIN	SR MANAGER	134165
1004	MIS	Manager	104175
1005	HR	ASSOCIATE	321021

Sheet1

EID	NAME	FNAME	LNAME	ADDRESS	PHONE	EMAIL	DO
1001	RAMESH GUPTA	RAMESH	GUPTA	SECTOR 7,Rohini,Gurgaon	9999002727	RK@YAHOO.CO.IN	9/1
1002	Sandeep Sharma	Sandeep	Sharma	SECTOR 2,PALAM,GURGAON	9567890010	SAM1@YAHOO.COM	9/15
1003	Rajesh Sharma	Rajesh	Sharma	Sector 11,Dwarka,Delhi	9999001001	RSharma56@gmail.com	3/16
1004	Yogeshwar Sharma	Yogeshwar	Sharma	Sector 11,Dwarka,Delhi	8899001001	YSharma@gmail.com	9/25

Join Kind

Left Outer (all from first, matching from second)

☐ Use fuzzy matching to perform the merge

Fuzzy matching options

✓ The selection matches 41 of 42 rows from the first table.

Query Settings

PROPERTIES

Name: SAL

APPLIED STEPS

Source, Navigation, Promoted Headers, X Changed Type

Merging Sheets can also be done in multiple data source & Multiple Columns

