



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

Untitled - Power Query Editor

File Home Transform Add Column View Tools Help

Group By Use First Row as Headers Count Rows

Table

Data Type: Whole Number Detect Data Type Rename

Any Column

Split Column Format Merge Columns Extract Parse

Text Column

Statistics Standard Scientific

Number Column

Trigonometry Rounding Information

Date Time Duration

Date & Time Column

Structured Column

Run R script Run Python script

Scripts

Queries [1]

Sheet1

	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						

10 COLUMNS, 63 ROWS Column profiling based on top 1000 rows

PREVIEW DOWNLOADED AT 6:43 AM

Query Settings

PROPERTIES

Name

Sheet1

All Properties

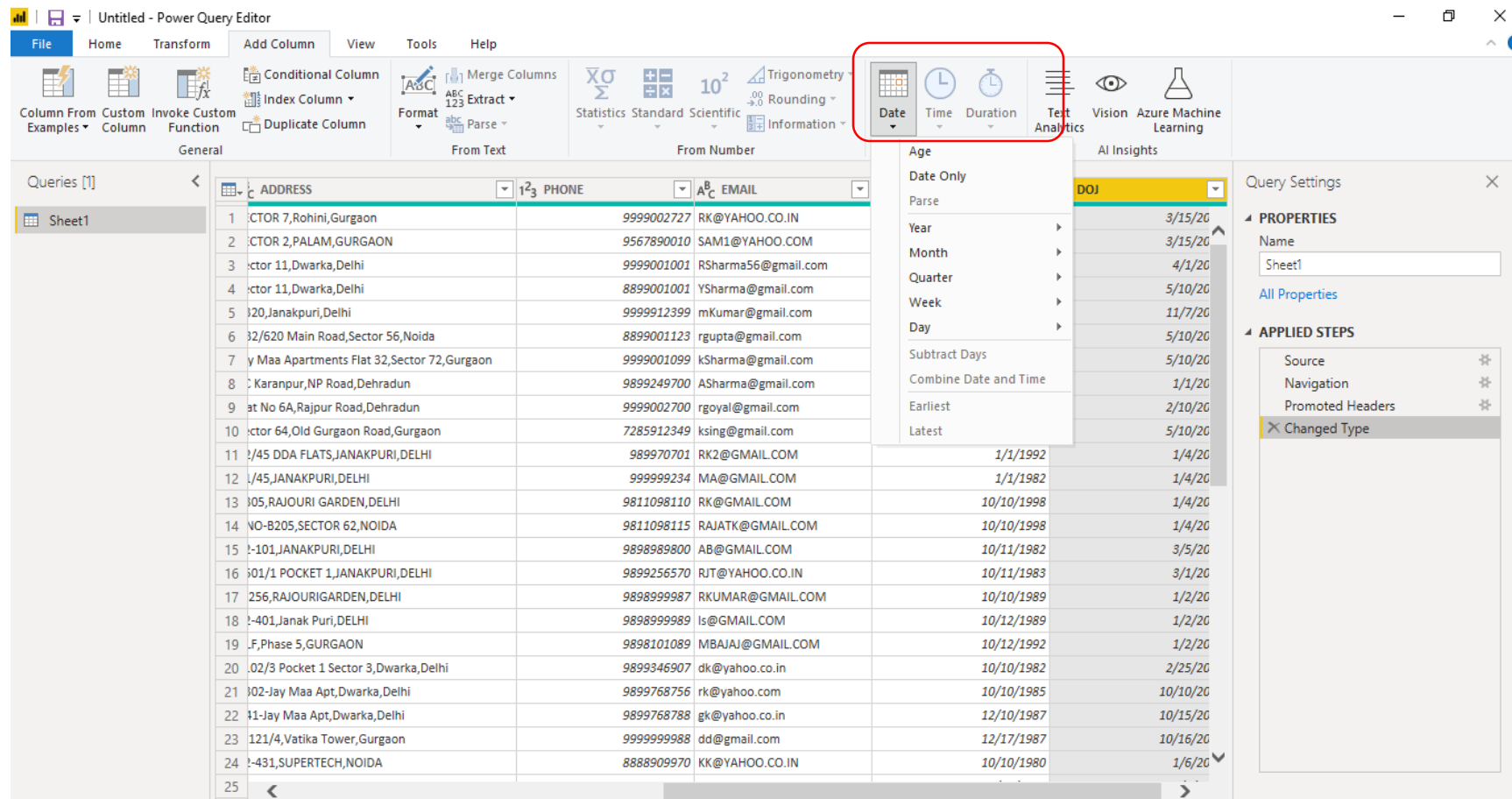
APPLIED STEPS

- Source
- Navigation
- Promoted Headers
- Changed Type
- Merged Columns
- Split Column by Delimiter
- Changed Type1
- Renamed Columns
- Replaced Value
- Replaced Value1
- Removed Columns
- Capitalized Each Word

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 ribbon at the top includes 'File', 'Home', 'Transform', 'Add Column', 'View', 'Tools', and 'Help'. The 'Transform' tab is active, showing various options like 'Conditional Column', 'Index Column', 'Duplicate Column', 'Merge Columns', 'Extract', 'Format', 'Parse', 'Statistics', 'Standard', 'Scientific', 'Rounding', 'Information', 'Date', 'Time', 'Duration', 'Text Analytics', 'Vision', and 'Azure Machine Learning'. The 'Date' function group is highlighted with a red box, and its dropdown menu is open, showing options like 'Age', 'Date Only', 'Parse', 'Year', 'Month', 'Quarter', 'Week', 'Day', 'Subtract Days', 'Combine Date and Time', 'Earliest', and 'Latest'. The main data area shows a table with 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
CTOR 7,Rohini,Gurgaon	9999002727	RK@YAHOO.CO.IN
CTOR 2,PALAM,GURGAON	9567890010	SAM1@YAHOO.COM
ctor 11,Dwarka,Delhi	9999001001	RSharma56@gmail.com
ctor 11,Dwarka,Delhi	8899001001	YSharma@gmail.com
020,Janakpuri,Delhi	9999912399	mKumar@gmail.com
32/620 Main Road,Sector 56,Noida	8899001123	rgupta@gmail.com
y Maa Apartments Flat 32,Sector 72,Gurgaon	9999001099	kSharma@gmail.com
C Karanpur,NP Road,Dehradun	9899249700	ASharma@gmail.com
at No 6A,Rajpur Road,Dehradun	9999002700	rgoyal@gmail.com
ctor 64,Old Gurgaon Road,Gurgaon	7285912349	ksing@gmail.com
12/45 DDA FLATS,JANAKPURI,DELHI	989970701	RK2@GMAIL.COM
12/45,JANAKPURI,DELHI	999999234	MA@GMAIL.COM
105,RAJOURI GARDEN,DELHI	9811098110	RK@GMAIL.COM
14 NO-B205,SECTOR 62,NOIDA	9811098115	RAJATK@GMAIL.COM
15 101,JANAKPURI,DELHI	9898989800	AB@GMAIL.COM
16 101/1 POCKET 1,JANAKPURI,DELHI	9899256570	RJT@YAHOO.CO.IN
17 256,RAJOURIGARDEN,DELHI	9898999987	RKUMAR@GMAIL.COM
18 401,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 11-Jay Maa Apt,Dwarka,Delhi	9899768788	gk@yahoo.co.in
23 121/4,Vatika Tower,Gurgaon	9999999988	dd@gmail.com
24 431,SUPERTECH,NOIDA	8888909970	KK@YAHOO.CO.IN
25		

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 Power Query interface. The 'Add Column' tab is active, and the 'Standard' category is selected. The 'Multiply' option is highlighted in the dropdown menu. The background shows a data table with columns for 'Sales', 'Discount', and 'Profit'.

	1.2 Sales	1.2 Discount	1.2 Profit
1 Bookcase		2	41.913
2 tered Stacking Chairs, Rounded Back		3	219.58
3 els for Typewriters by Universal		2	6.871
4 im Rectangular Table		5	-383.03
5 tem		2	2.516
6 and Plastic Desk Accessories, Cherry Wood		7	14.169
7	7.28	4	1.965
8 phone	907.152	6	90.715
9 with Locking Rings by Samsill	18.504	3	5.782
10 et Surge	114.9	5	34.4
11 onference Tables	1706.184	9	85.309
12 hone - Charcoal black	911.424	4	68.356
13	15.552	3	5.443
14 mb Binding Machine	407.976	3	132.592
15 er for HEPA Air Cleaner, Very Large Room, HE...	68.81	5	-123.85
16 l Plastic Frosted Binders	2.544	3	-3.81
17 ical 5-Shelf: 72"H x 36"W x 18 1/2"D	665.88	6	13.317
18 er	55.5	2	9.9
19	8.56	2	2.482
20	213.48	3	16.01
21 w Binder, White, 1"	22.72	4	7.38
22	19.46	7	5.059
23 ip, 4' Cord Length	60.34	7	15.688
24 air, Gray	71.372	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 background shows a table with columns: Date, Policy Id, premium, and Comm. The 'Sales2020' sheet is selected in the left pane.

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

The screenshot displays the 'Merge' dialog in Power Query. The 'SAL' table is selected as the first table, and 'Sheet1' is selected as the second table. The 'Join Kind' is set to 'Left Outer (all from first, matching from second)'. The 'Merge Queries' button is highlighted with a red box. The 'Query Settings' pane on the right shows the 'PROPERTIES' and 'APPLIED STEPS' sections.

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

EID	NAME	FNAME	LNAME	ADDRESS	PHONE	EMAIL	DOB
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.

OK Cancel



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

Columns From Example in Power Query

CFE is Just like Fast Fill In Excel. Many of the Text & date functions can be utilized without writing any function, Just by few clicks. (Split, Merge, Date Parts, Part of AlphaNumeric Data)

The screenshot displays the Microsoft Power Query Editor interface. The main area shows a data table with the following columns: Row ID, Order ID, Order Date, Ship Date, Ship Mode, and Customer ID. The 'Orders' query is selected in the left pane. The right pane shows 'Query Settings' with 'Properties' and 'Applied Steps'.

Query Settings

- PROPERTIES**
 - Name: Orders
- APPLIED STEPS**
 - Source
 - Navigation
 - Promoted Headers
 - Changed Type
 - Inserted Text Between Delimit...
 - Reordered Columns

22 COLUMNS, 999+ ROWS Column profiling based on top 1000 rows PREVIEW DOWNLOADED AT 7:37 AM

