

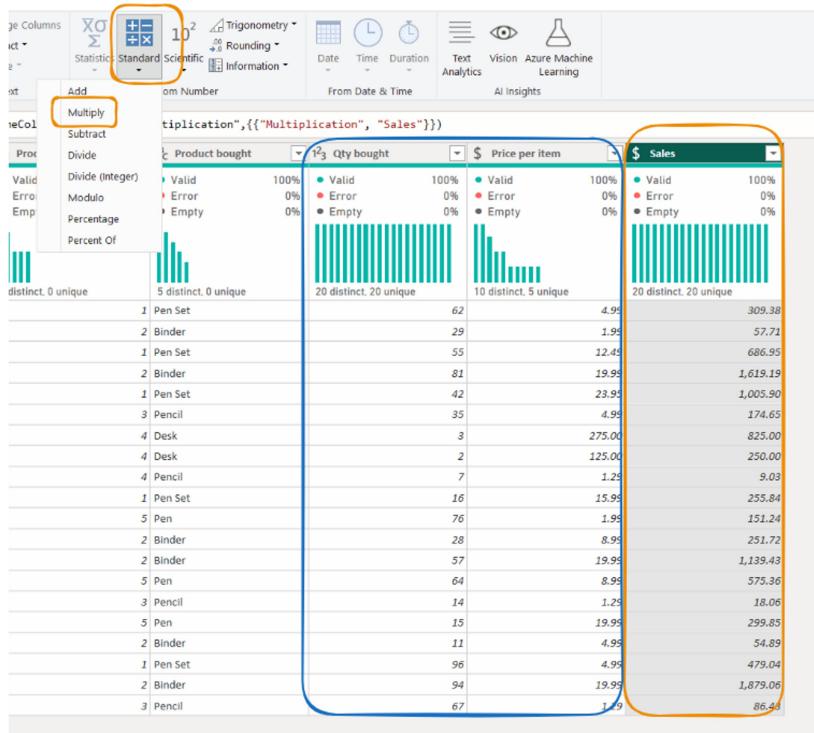
Advanced Power Query & Data Modelling - p1

- Invoke Custom Function - To build Rolling Calendar.
- Merge Queries.
- Append Queries.
- Pivot & Unpivot Tables.
- Statistics / Data Time / All Other Features of Power Query.
- Data Modelling Concepts.

`List.Dates(`

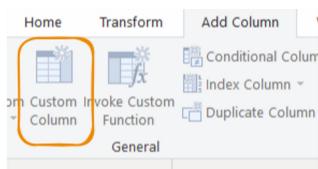
```
    Source,
    Number.From(DateTime.LocalNow()) - Number.From(Source),
    #duration(1, 0, 0, 0)
)
```

- `List.Dates(start, count, step)`



*Sales = Qty * Price per item.*

APPLIED STEPS	
Source	⚙
Promoted Headers	⚙
Changed Type	⚙
Removed Columns	⚙
Removed Blank Rows	⚙
Inserted Multiplication	⚙
Renamed Columns	⚙



Custom Column

Add a column that is computed from the other columns.

New column name

Sales

Custom column formula ⓘ

= [Qty bought] * [Price per item]

Available columns

Customer ID
Product ID
Product bought
Qty bought
Price per item

<< Insert

Learn about Power Query formulas

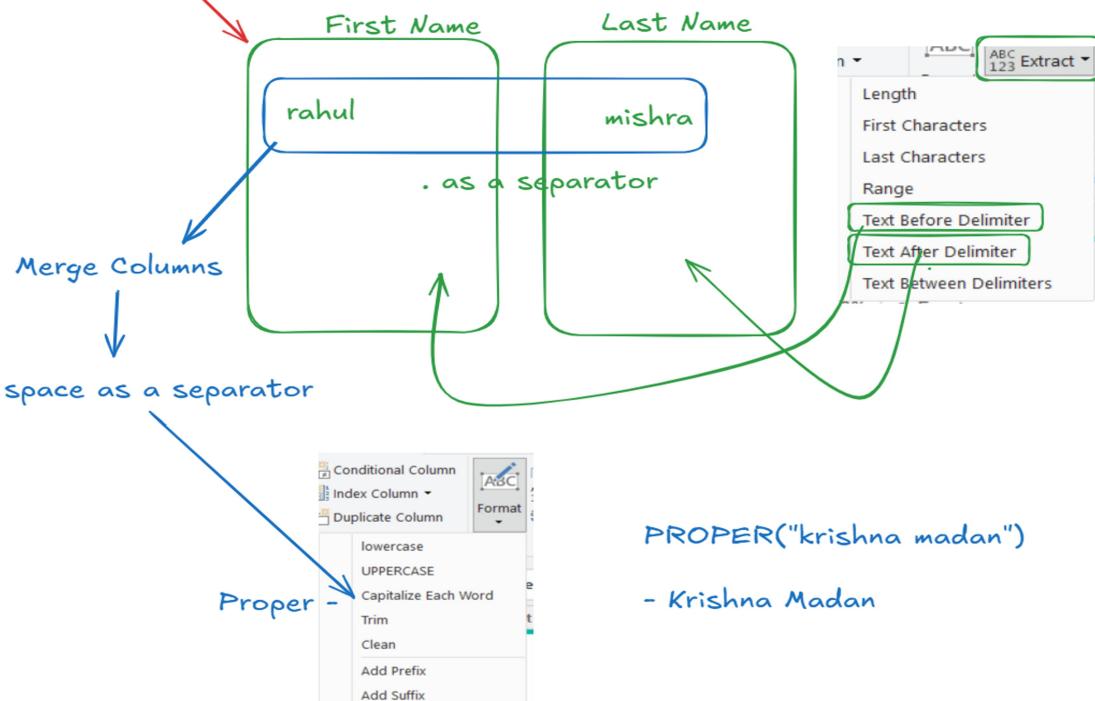
✓ No syntax errors have been detected.

OK Cancel

123 Qty bought	\$ Price per item	\$ Sales
Valid 100%	Valid 100%	Valid 100%
Error 0%	Error 0%	Error 0%
Empty 0%	Empty 0%	Empty 0%
20 distinct, 20 unique	10 distinct, 5 Unique	20 distinct, 20 unique
62	4.99	309.88
29	1.99	57.71
55	12.49	686.95
81	19.99	1,619.19
42	23.95	1,005.90
35	4.99	174.65
3	275.00	825.00
2	125.00	250.00
7	1.29	9.03
16	15.99	255.84
76	1.99	151.24
20	8.99	231.72
57	19.99	1,139.43
64	8.99	575.36
14	1.29	18.06
15	19.99	299.85
11	4.99	54.89
96	4.99	479.04
94	19.99	1,870.06
67	1.29	86.43

Column From Example -

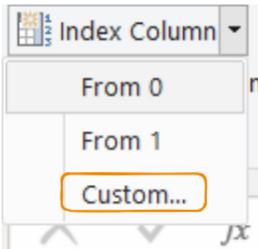
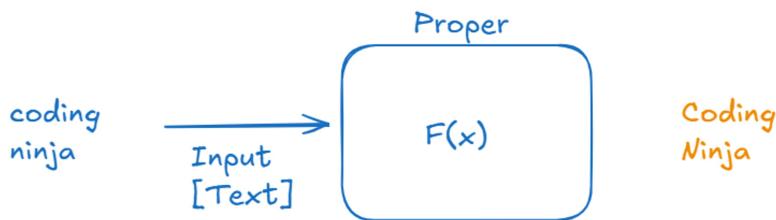
Email Address	Rank	Name	Customer Name
Valid 100%	Valid 100%	Valid 100%	Valid 100%
Error 0%	Error 0%	Error 0%	Error 0%
Empty 0%	Empty 0%	Empty 0%	Empty 0%
5 distinct, 5 unique	5 distinct, 5 unique	5 distinct, 5 unique	5 distinct, 5 unique
rahul.mishra@gmail.com	1232	Krishna	Rahul Mishra
shorav.verma@gmail.com	223	Manav	Shorav Verma
anjali.chaturvedi@gmail.com	334	Ankit	Anjali Chaturvedi
vikash.kumar@gmail.com	214533	Avinash	Vikash Kumar
anuj.gupta@gmail.com	5555	Anjali	Anuj Gupta



```

= let splitEmailAddress = Splitter.SplitTextByDelimiter(".", 
    QuoteStyle.None)([Email Address]), splitsplitEmailAddress1
= Splitter.SplitTextByDelimiter("@", QuoteStyle.None)
(splitEmailAddress{1}?) in Text.Combine({Text.Proper
(splitEmailAddress{0}?), " ", Text.Proper
(splitsplitEmailAddress1{0}?)})

```



Conditional Column

It is similar to IF(Expression, Result If True, Result If False) Function in Excel.

123 Qty bought	
• Valid	100%
• Error	0%
• Empty	0%
20 distinct, 20 unique	
62	
29	
55	
81	
42	
35	
3	
2	
7	
15	

We will create a new column name "Order Category".
 $Qty \geq 50$ - Bulk Order, $Qty \geq 30$ - Medium Order
Else Regular Order.

Add Conditional Column

Add a conditional column that is computed from the other columns or values.

New column name

Order Category

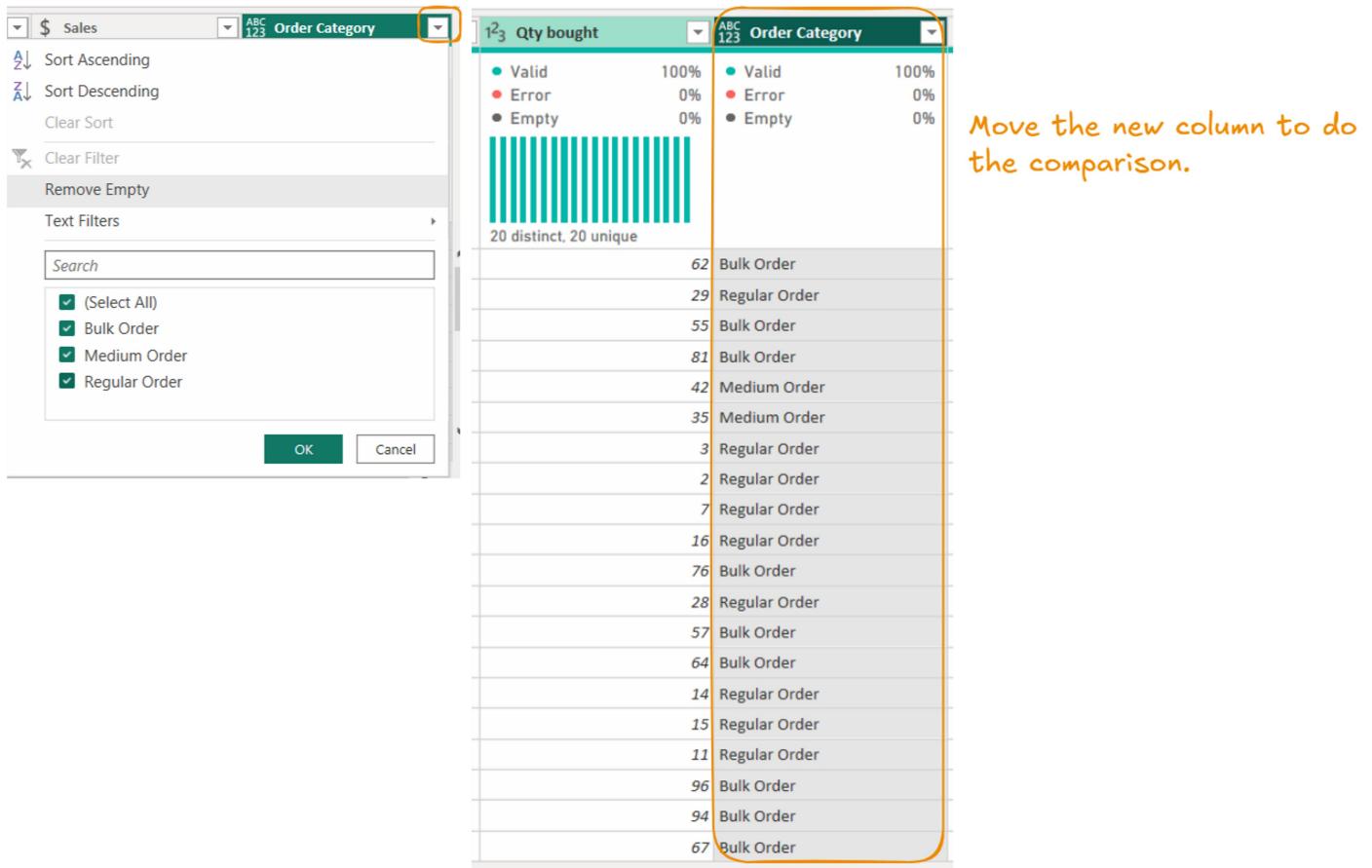
Column Name	Operator	Value	Output
If Qty bought	is greater than or...	ABC 123 50	Then ABC 123 Bulk Order
Else If Qty bought	is greater than or...	ABC 123 30	Then ABC 123 Medium Order

Add Clause

Else	Value
ABC 123	Regular Order

OK

Cancel



Rolling Calendar → Invoke Custom Function.

Step1: Go to Home in Power Query Editor:
New Source > Blank Query

Step2: Write an initial date in the formula bar.

Queries [6]

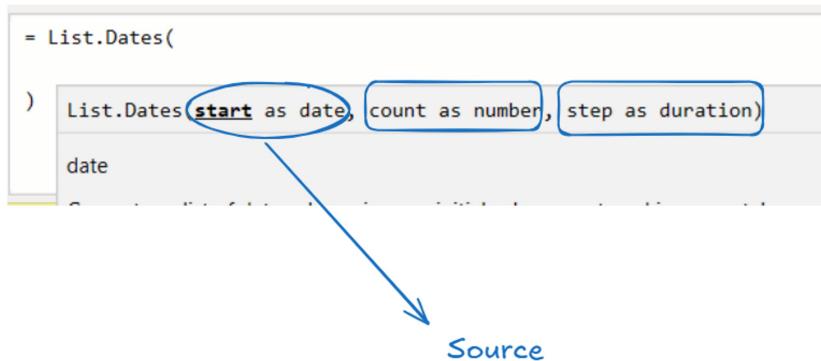
- Customers
- Sales
- Product Information
- Manual Data
- sample_json_column
- Query1

01-01-2022

=#date(2022,1,1) - (yyyy,mm,dd)

APPLIED STEPS

- Source
- Custom1



```
= List.Dates(
    Source,
    Number.From(DateTime.LocalNow()) - Number.From(Source),
    #duration(1,0,0,0)
)
```

Step - Convert the list into Tables.

Right click to see the option in your case.

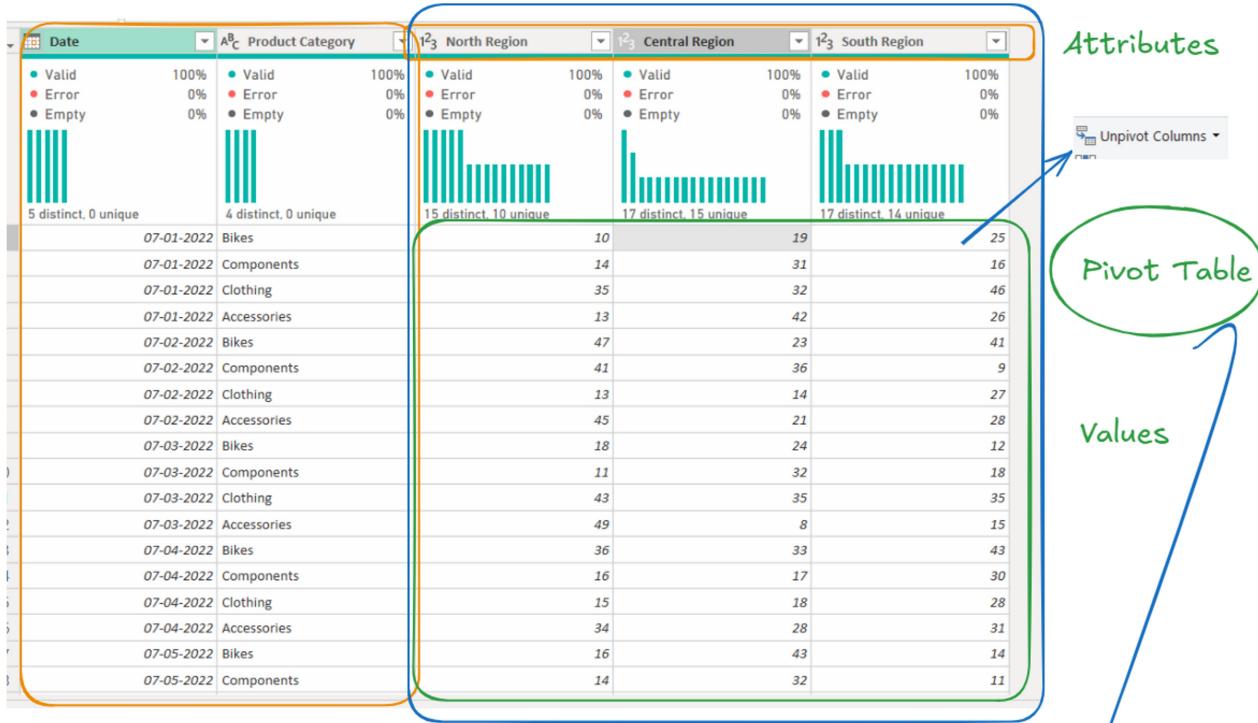
Date	Start of Year
Valid	100%
Error	0%
Empty	0%
1000 distinct, 1000 unique	3 distinct, 0 unique
58 27-02-2022	01-01-2022
59 28-02-2022	01-01-2022
	01-02-2022

Earliest means the more it is far to today's date.
Latest means the more it is closer to today's date.

Pivot & Unpivot Tables

PIVOTING & UNPIVOTING,

Pivoting describes the process of turning distinct row values into columns, and unpivoting describes the process of turning distinct columns into rows



20 rows at initial * 3 Regions[Columns] into rows - 60 rows.

A screenshot of a Power BI report showing four columns: Date, Product Category, Region, and Qty. The Region column is highlighted with a blue border. A blue arrow points from the Region column to a callout bubble labeled "Row to Columns".

Date	Product Category	Region	Qty
07-04-2022	Bikes	North Region	36
07-04-2022	Bikes	Central Region	33
07-04-2022	Bikes	South Region	43
07-04-2022	Components	North Region	16
07-04-2022	Components	Central Region	17
07-04-2022	Components	South Region	30
07-04-2022	Clothing	North Region	15
07-04-2022	Clothing	Central Region	18
07-04-2022	Clothing	South Region	28
07-04-2022	Accessories	North Region	34
07-04-2022	Accessories	Central Region	28
07-04-2022	Accessories	South Region	31
07-05-2022	Bikes	North Region	16
07-05-2022	Bikes	Central Region	43
07-05-2022	Bikes	South Region	14
07-05-2022	Components	North Region	14
07-05-2022	Components	Central Region	32
07-05-2022	Components	South Region	11
07-05-2022	Clothing	North Region	11
07-05-2022	Clothing	Central Region	25
07-05-2022	Clothing	South Region	46
07-05-2022	Accessories	North Region	10
07-05-2022	Accessories	Central Region	21
07-05-2022	Accessories	South Region	25

Unpivot
Table

A screenshot of the Power BI Power Query Editor showing the "Pivot Column" dialog box. The "Values Column" is set to "Qty" and the "Aggregate Value Function" is set to "Don't Aggregate". The "OK" button is highlighted with a green circle.

The Power Query ribbon shows the "Pivot Column" option selected. The formula bar shows the command: `Table.RenameColumns(#"Unpivoted Columns", {"Attribute", "Region"}, {"Value", "Qty"})`.

Attribute	Region	Value
0% 0 unique	North Region	36
0%	Central Region	33
0%	South Region	43
100%	North Region	16
0%	Central Region	17
0%	South Region	30
100%	North Region	15
0%	Central Region	18
0%	South Region	28
100%	North Region	34
0%	Central Region	28
0%	South Region	31
100%	North Region	16
0%	Central Region	43
0%	South Region	14
100%	North Region	14
0%	Central Region	32
0%	South Region	11
100%	North Region	11
0%	Central Region	25
0%	South Region	46
100%	North Region	10
0%	Central Region	21
0%	South Region	25

