

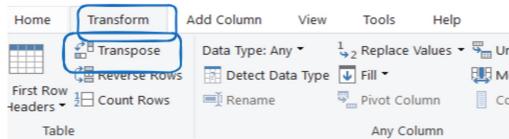
Power BI - Data Transformation - Text & Numerical Tools - Lecture 6

Power BI - Data Transformation - p4

Transposing a table : Converting row → column , Column - Row

ABC Column1	ABC Column2	ABC Column3	ABC Column4	ABC Column5	ABC Column6	ABC Column7
Valid Error Empty						
93% 0% 7%	80% 0% 20%	80% 0% 20%	80% 0% 20%	80% 0% 20%	80% 0% 20%	80% 0% 20%
15 distinct, 15 unique	13 distinct, 12 unique					
Revenue	Sep 2021	Dec 2021	Mar 2022	Jun 2022	Sep 2022	Dec 2022
Interest	23,478	24,314	24,999	26,159	28,850	31,619
Expenses +	10,093	10,372	10,634	11,089	11,997	12,978
Financing Profit	21,041	20,470	21,775	18,137	22,336	22,946
Financing Margin %	-7,656	-6,528	-7,410	-3,068	-5,483	-4,305
Other Income +	-33%	-27%	-30%	-12%	-19%	-14%
Depreciation	16,261	15,745	18,013	13,271	16,634	16,470
Profit before tax	0	0	0	0	0	0
Tax %	8,606	9,216	10,604	10,203	11,151	12,165
Net Profit +	24%	24%	24%	25%	25%	25%
EPS in Rs	6,571	6,960	8,089	7,698	8,361	9,166
Gross NPA %	8.78	9.41	11.11	10.62	11.49	12.60
Net NPA %						
Raw PDF						

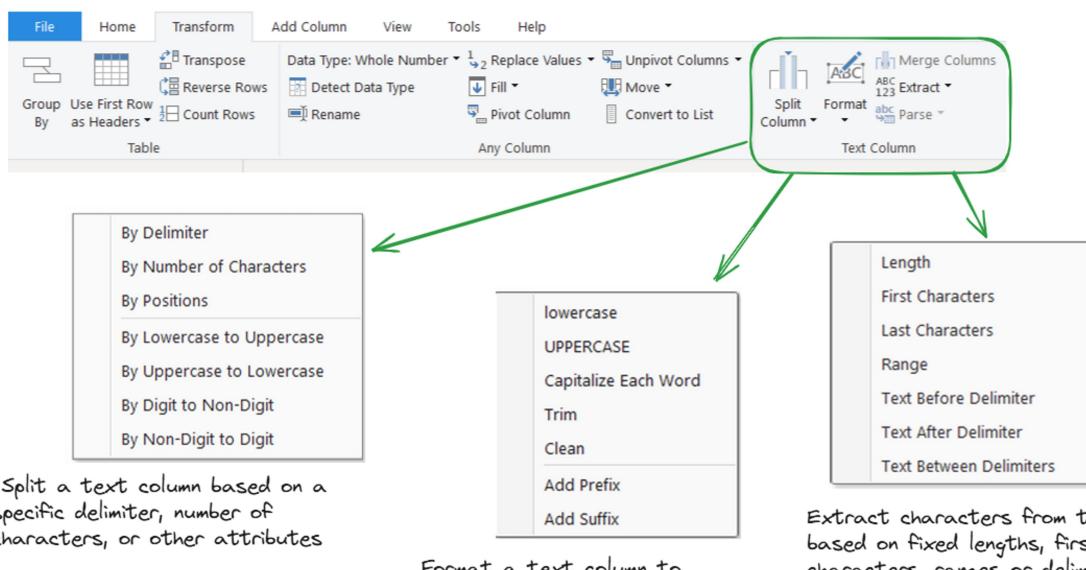
Promoted to Headers.



ABC 123 Column1	ABC 123 Column2	ABC 123 Column3	ABC 123 Column4	ABC 123 Column5	ABC 123 Column6	ABC 123 Column7
Valid Error Empty						
100% 0% 0%						
Revenue	Interest	Expenses +	Financing Profit	Financing Margin %	Other Income +	
23,478	10,093	21,041	-7,656	-33%	16,261	
24,314	10,372	20,470	-6,528	-27%	15,745	
24,999	10,634	21,775	-7,410	-30%	18,013	
26,159	11,089	18,137	-3,068	-12%	13,271	
28,850	11,997	22,336	-5,483	-19%	16,634	
31,619	12,978	22,946	-4,305	-14%	16,470	
34,439	14,479	25,959	-6,000	-17%	19,735	
37,106	16,368	21,402	-663	-2%	15,229	
38,938	17,908	24,560	-3,530	-9%	18,690	
40,865	19,409	24,929	-3,473	-8%	18,874	
42,607	20,424	30,604	-8,421	-20%	24,802	
44,582	21,122	29,387	-5,927	-13%	22,745	
46,326	22,225	32,221	-8,120	-18%	26,662	

Promoted Headers

TEXT TOOLS



Split a text column based on a specific delimiter, number of characters, or other attributes

Format a text column to upper, lower or proper case, or add a prefix or suffix

Extract characters from text based on fixed lengths, first/last characters, ranges or delimiters

You can access many tools from both the "Transform" and "Add Column" menus - the difference is whether you want to ADD a new column or OVERWRITE an existing one

Tip: Use "Trim" to eliminate leading & trailing spaces, or "Clean" to remove non-printable characters

City_Country

Berlin_Germany
NovaScotia_Canada
London_UK
Delhi_India
Lahore_Pakistan

City

Berlin
NovaScotia
London
Delhi
Lahore

Country

Germany
Canada
UK
India
Pakistan

Text Tool : Assignment

1. Duplicate the email address column and name it "Domain Name"

2. In the new column, remove all text/characters except for the domain name

3. Use transformation steps to clean up and capitalize the domain names (i.e. "AdventureWorks")

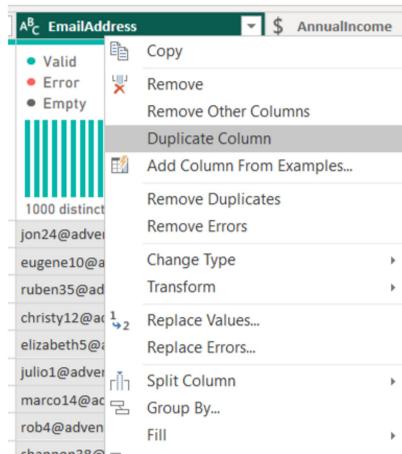
4. Save & Apply changes

adventure-works

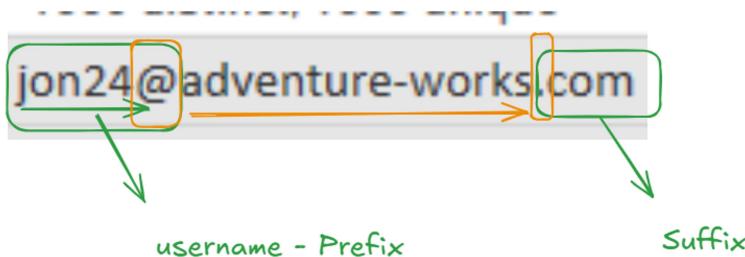
Replacing - with " " [Space]
Capitalize the text.

Step 1: Import the Customer Lookup Table . And promote Headers -> Change the Data types.

Step 2 :

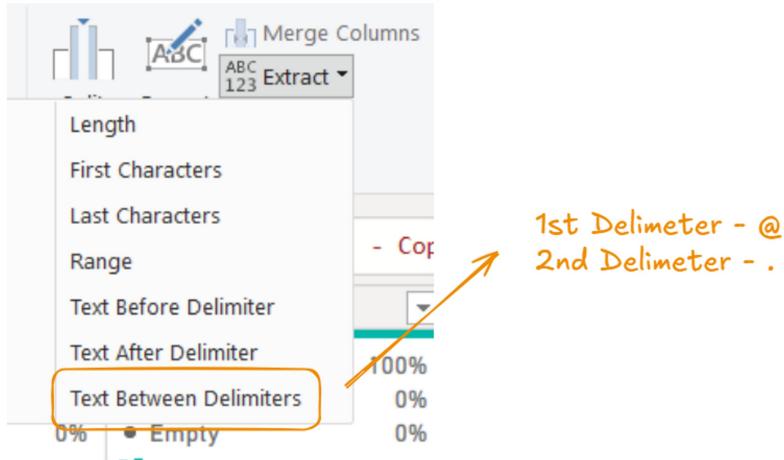


Duplicate the column. And rename it to Domain Name.



jon24@adventure-works.com
eugene10@adventure-works.com
ruben35@adventure-works.com
christy12@adventure-works.com
elizabeth5@adventure-works.com
julio1@adventure-works.com
marco14@adventure-works.com
rob4@adventure-works.com
shannon38@adventure-works.com
jacquelyn20@adventure-works.com
curtis9@adventure-works.com
lauren11@adventure-works.com

Step 3 :



Text Between Delimiters

Enter the delimiters that mark the beginning and end of what you would like to extract.

Start delimiter
@

End delimiter
. .

► Advanced options

OK

Cancel

Step 4 : Replace the value from - to space.

Transform Add Column View Tools Help

Transpose Data Type: Text Replace Values

Reverse Rows Detect Data Type Fill

Count Rows Rename Pivot Column

Replace Values

Replace one value with another in the selected columns.

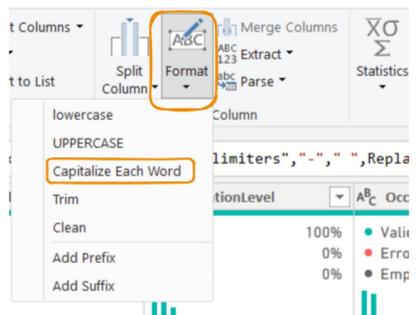
Value To Find
-

Replace With

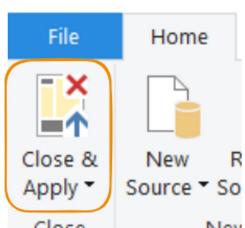
► Advanced options

OK Cancel

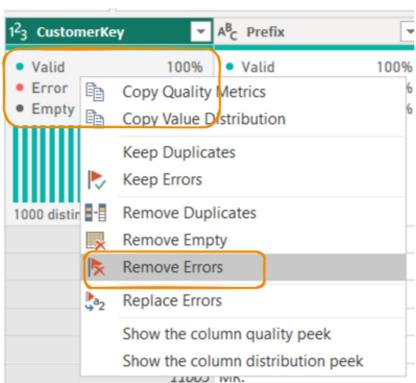
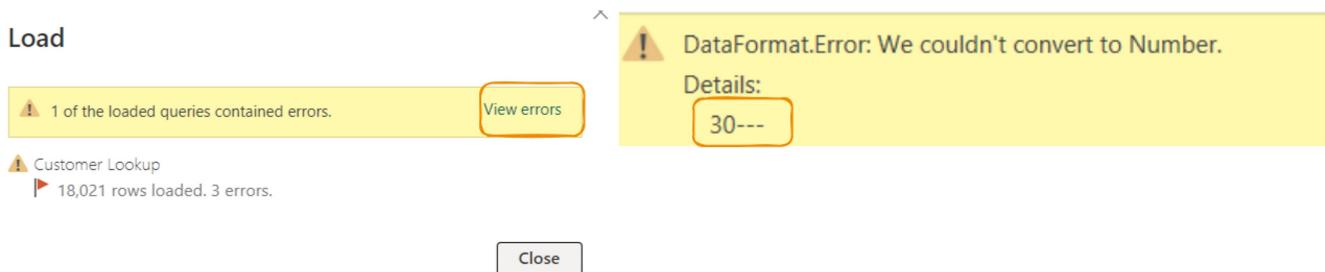
Step 5 : Capitalize Each Work to make "adventure works" look like "Adventure Works"



Step 6 : Close & Apply to load the data back to Front End.



Step 7 : Oops we got an error While loading.



NUMERICAL TOOLS

The screenshot shows the Power BI Data Editor ribbon with several tool groups highlighted:

- Transform**: Contains Transpose, Reverse Rows, Count Rows, Add Column, View, Tools, Help, Data Type: Whole Number, Replace Values, Unpivot Columns, Pivot Column, Fill, Move, Convert to List, Split Column, Format, ABC 123 Extract, Merge Columns, Text Column.
- Number Column**: Contains X σ , \sum , $\frac{d}{dx}$, 10^2 , Trigonometry, Statistics, Standard, Scientific, Rounding, Information.
- Information**: Contains Is Even, Is Odd, Sign.

Arrows point from the ribbon sections to their respective tool groups:

- An arrow points from the **Transform** section to the **Statistics** group.
- An arrow points from the **Transform** section to the **Standard** group.
- An arrow points from the **Transform** section to the **Scientific** group.
- An arrow points from the **Transform** section to the **Trigonometry** group.
- An arrow points from the **Information** section to the **Information** group.

Below the ribbon, three boxes show examples of each group:

- Statistics** (Sum, Minimum, Maximum, Median, Average, Standard Deviation, Count Values, Count Distinct Values)
- Standard** (Add, Multiply, Subtract, Divide, Integer-Divide, Modulo, Percentage, Percent Of)
- Scientific** (Absolute Value, Power, Square Root, Exponent, Logarithm, Factorial)
- Trigonometry** (Sine, Cosine, Tangent, Arcsine, Arccosine, Arctangent)

Notes in callout boxes:

- Note: These tools return a **SINGLE** value, and are commonly used to explore a table rather than prepare it for loading.
- Note: Unlike the Statistics tools, these are applied to each row in the table.

Text descriptions:

- Statistics functions allow you to evaluate basic stats for a selected column (sum, min/max, average, count, count distinct, etc.)
- Standard, Scientific and Trigonometry tools allow you to apply standard operations (addition, multiplication, division, etc.) or more advanced calculations (power, logarithm, sine, tangent, etc.) to each value in a column.
- Information tools allow you to define binary flags (1/0 or TRUE/FALSE) to mark rows as even, odd, positive or negative.

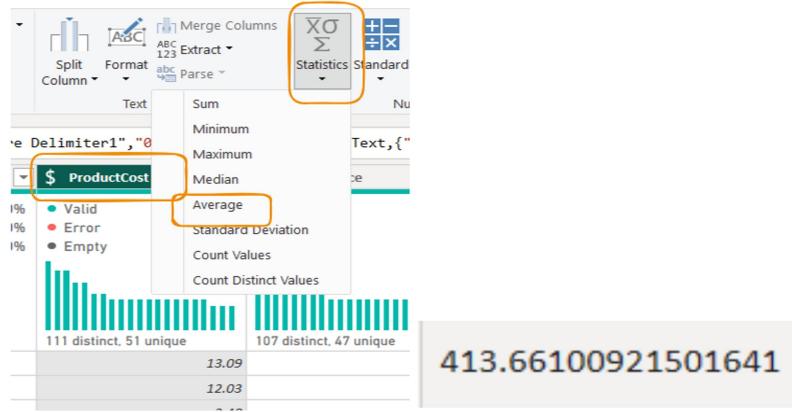
NUMERICAL TOOLS : Assignment

- What is our **average product cost?** **413.66**
- How many **colors** do we sell our products in? **10**
- How many **distinct customers** do we have? **18018**
- What is the **maximum annual customer income?** **170000**
- Return the tables to their original state

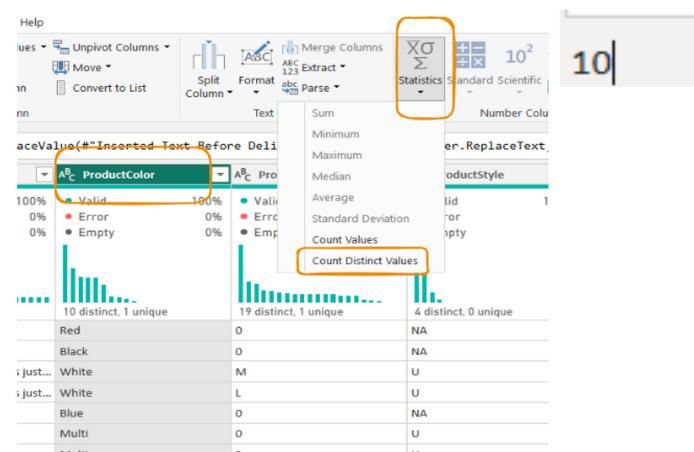
Ans - 1

Closing the applied step after use to get the tabular data back.

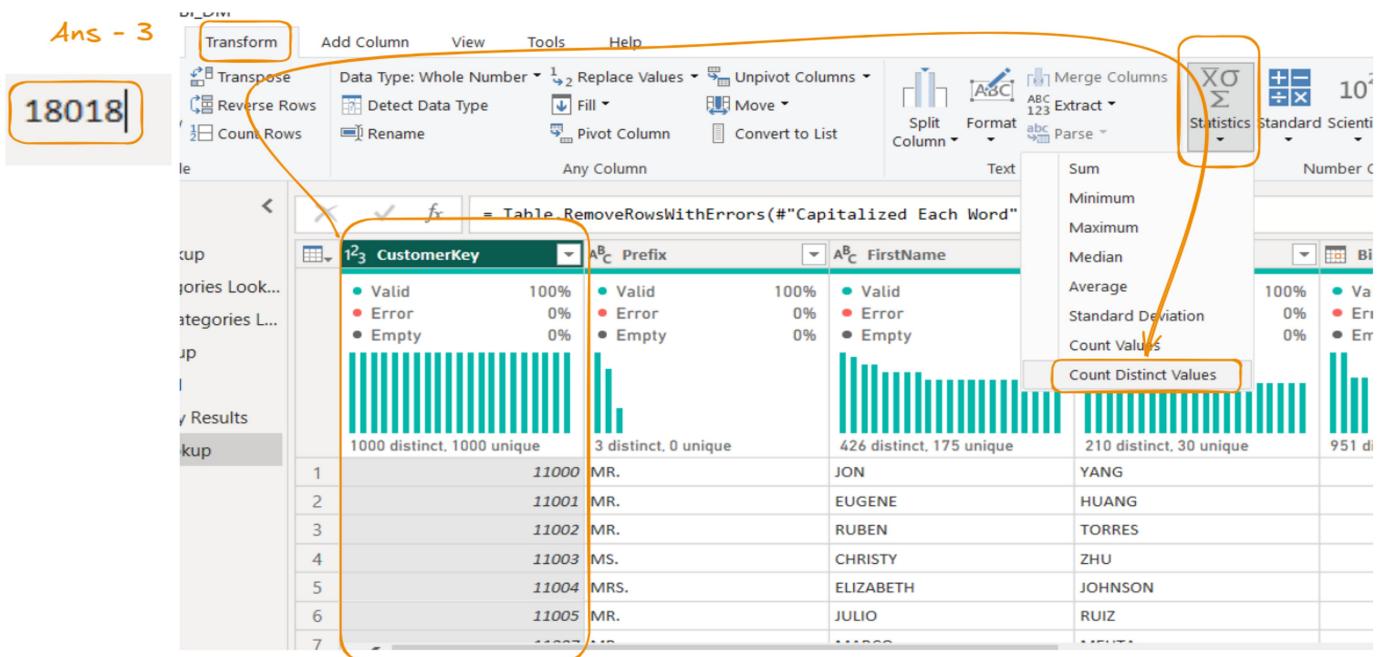
Ans - 1



Ans - 2



Ans - 3



Ans - 4

170000

