

How to construct a frequency distribution for non-numeric data:

Step1:

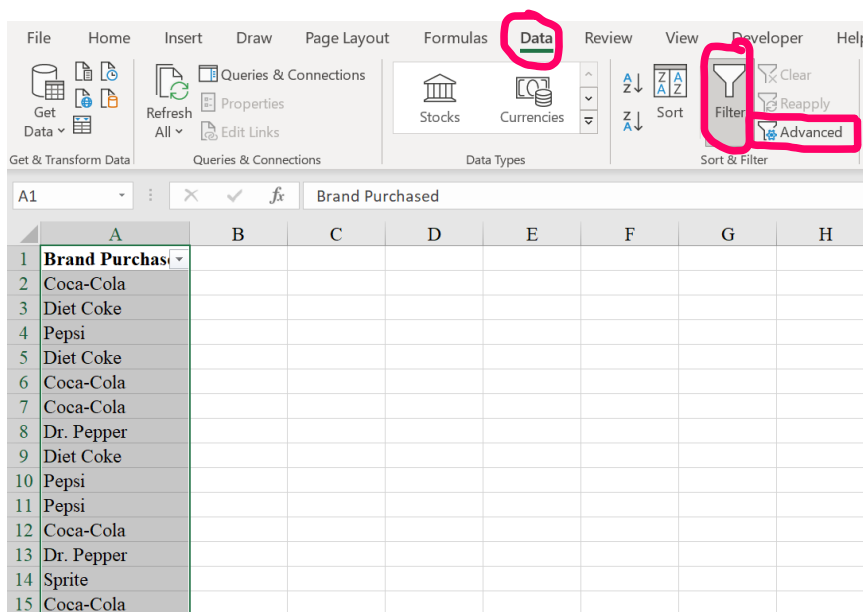
Download the excel file softdrink.xlsx that is posted on Blackboard. You can find this data file on your Cengage eBook also.

Step2:

Go to cell A1 and press shift+control+↓ keys to select all the softdrink brands purchased. Note you select the column label here.

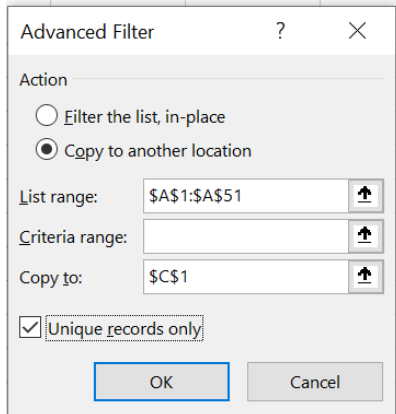
Step 3:

Click Data, then Filter, then Advanced as shown here:



Step 4:

Click on Copy to another location and choose a location to copy the data categories. Here I have chosen cell # C1 as the location. Then choose Unique records only. Then click OK. Adjust the width of column C as required.



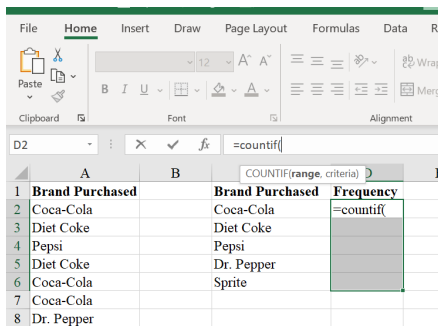
Step 5:

To calculate the frequency of the data, go to column D, label it as frequency in D1, choose bold to highlight the column heading. Now go to cell D2 and select all the cells in the frequency column you want to count. In this case select from D2 to D6.

C	D
Brand Purchased	Frequency
Coca-Cola	
Diet Coke	
Pepsi	
Dr. Pepper	
Sprite	

Step 6:

Move the cursor back to the formula bar and type =countif(as shown below.



Step 7:

Press Ctrl + A to get the input bar. In the input bar, for **Range** select the range of values for brand purchased **without selecting the label "Brand Purchased"**. To do that go to A2, click Shift+Ctrl+↓.

For **criteria** select the data categories in Column C **without selecting the label "Brand Purchased"**. To do that go to C2, click Shift+Ctrl+↓. Now click OK. You will get the frequency table

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Function Arguments

COUNTIF

Range: A2:A51 = ("Coca-Cola";"Diet Coke";"Pepsi";"Diet Coke";...)

Criteria: C2:C6 = "Coca-Cola"

= 19

Counts the number of cells within a range that meet the given condition.

Criteria is the condition in the form of a number, expression, or text that defines which cells will be counted.

Formula result = 19

[Help on this function](#) OK Cancel

Step 8

Now go to cell C7, type Total. Go to cell D7, then go to the formula bar and type =sum(Then press Ctrl+A to get the input bar. In the input bar, for Number 1, go to cell D2, click Shift+Ctrl+↓. Now click OK to get the total number of brands purchased.

Function Arguments

SUM

Number1: D2:D6 = (19;8;13;5)

Number2: = number

= 50

Adds all the numbers in a range of cells.

Number1: number1,number2,... are 1 to 255 numbers to sum. Logical values and text are ignored in cells, included if typed as arguments.

Formula result = 50

[Help on this function](#) OK Cancel

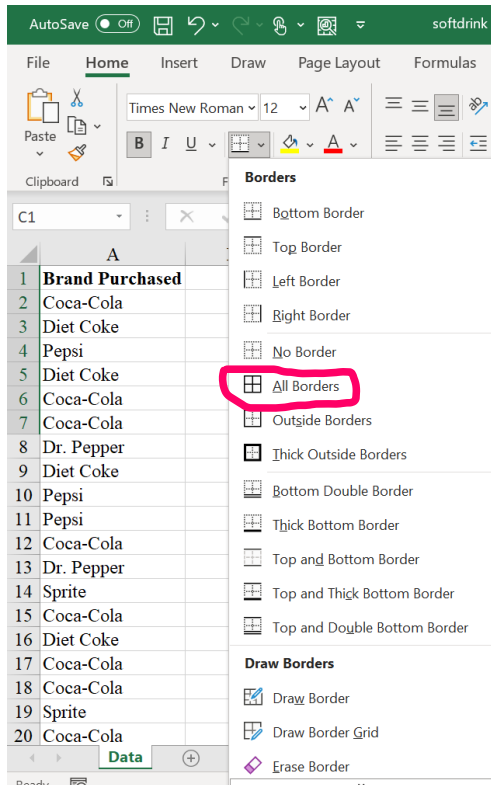
Step 9:

Go C2, select C2 and D2, and click Shift+Ctrl+↓. Save you file as your Lastname.Firstname.softdrinks.xlsx

Brand Purchased	Frequency
Coca-Cola	19
Diet Coke	8
Pepsi	13
Dr. Pepper	5
Sprite	5
Total	50

Step 10:

Click on the border icon in the menu bar, and choose **All borders** as shown below. Now you have a frequency table with borders.



Step 11.

Insert two columns above C2 and D2 and label the table as **Frequency distribution of soft drinks purchased** in bold. You can adjust the column widths of columns C and D. Your final output should look like this.

Frequency distribution of soft drinks purchased	
Brand Purchased	Frequency
Coca-Cola	19
Diet Coke	8
Pepsi	13
Dr. Pepper	5
Sprite	5
Total	50