# 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:

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Get 8	Transform Data	Q	ueries & Conne	ections	Data	a Types		Sort & Filter	
A1	*	: ×	$\checkmark f_x$	Brand Pure	chased				
	А		в	С	D	Е	F	G	Н
1	Brand Pure	chas( 👻							
2	Coca-Cola								
3	Diet Coke								
4	Pepsi								
5	Diet Coke								
6	Coca-Cola								
7	Coca-Cola								
8	Dr. Pepper								
9	Diet Coke								
10	Pepsi								
11	Pepsi								
12	Coca-Cola								
13	Dr. Pepper								
14	Sprite								
15	Coca-Cola								

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.

Advanced Filt	er	?	$\times$
Action <u> </u>	ist, in-place nother location		
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<u>C</u> riteria range:			<b>±</b>
Copy <u>t</u> o:	\$C\$1		1
Unique <u>r</u> eco	rds only		
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### 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.

С	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.

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D2 - :	×	🖌 fx	=countif(		
A		В	COUNTIF(ra	nge, criteria) 🕽	E
1 Brand Purcha	sed		Brand Purchas	ed Frequenc	у
2 Coca-Cola			Coca-Cola	=countif(	
3 Diet Coke			Diet Coke		
4 Pepsi			Pepsi		
5 Diet Coke			Dr. Pepper		
6 Coca-Cola			Sprite		
7 Coca-Cola					
8 Dr. Pepper					

### 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+  $\checkmark$ .

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 ©Harini Mittal, Bronx Community College, CUNY

2 - : 🛪	~	fx =COUNTIF(A2:A5	1,C2:C6)	
A	В	С	D	E F G H I J K L M
<b>Brand Purchased</b>		<b>Brand Purchased</b>	Frequency	Function Arguments ? ×
Coca-Cola		Coca-Cola	C2:C6)	5
Diet Coke		Diet Coke		COUNTIF
Pepsi		Pepsi		Range A2:A51 🛨 = ("Coca-Cola";"Diet Coke";"Pepsi";"Diet Coke";
Diet Coke		Dr. Pepper		Criteria C2:C6 🛨 = "Coca-Cola"
Coca-Cola		Sprite		
Coca-Cola				= 19 Counts the number of cells within a range that meet the given condition.
Dr. Pepper				
Diet Coke				Criteria is the condition in the form of a number, expression, or text that defines which cells will be counted.
Pepsi				counco.
Pepsi				
Coca-Cola				Formula result = 19
Dr. Pepper				Help on this function OK Cancel
Sprite				Help on this function OK Cancel
Coca-Cola				
D1 + 0.1				

## 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.

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T.DIST - : 🗙	<ul> <li>✓ f<sub>x</sub></li> </ul>	=SUM(D2:D6)		Number2	
А	В	С	D		
1 Brand Purchased	1	Brand Purchased	Frequency		
2 Coca-Cola	(	Coca-Cola	19		
3 Diet Coke	I	Diet Coke	8	= 50	
4 Pepsi	Ι	Pepsi	13	Adds all the numbers in a range of cells.	
5 Diet Coke	I	Dr. Pepper	5	Number1: number1,number2, are 1 to 255 numbers to sum. Logical values and text are in	gnored in
6 Coca-Cola	5	Sprite	5	cells, included if typed as arguments.	
7 Coca-Cola	1	Fotal	D6)		
8 Dr. Pepper				Formula result = 50	
9 Diet Coke					
0 Pepsi				Help on this function OK Ca	incel
1 Donoi					

## Step 9:

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

Dianu i urchaseu		
С	D	
Brand Purchased	Frequency	
Coca-Cola	19	
Diet Coke	8	
Pepsi	13	
Dr. Pepper	5	
Sprite	5	
Total	50	
		2

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.

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Clipboard 🛛 F	Borders
C1 • : × •	Bottom Border
A	Top Border
1 Brand Purchased	Left Border
2 Coca-Cola 3 Diet Coke	Right Border
4 Pepsi	No Border
5 Diet Coke	All Borders
6 Coca-Cola	
7 Coca-Cola 8 Dr. Pepper	Out <u>s</u> ide Borders
9 Diet Coke	Thick Outside Borders
10 Pepsi	Bottom Double Border
11 Pepsi	Thick Bottom Border
12 Coca-Cola 13 Dr. Pepper	Top an <u>d</u> Bottom Border
14 Sprite	Top and Thick Bottom Border
15 Coca-Cola 16 Diet Coke	Top and Do <u>u</u> ble Bottom Border
17 Coca-Cola	Draw Borders
18 Coca-Cola	🔀 Dra <u>w</u> Border
19 Sprite 20 Coca-Cola	Draw Border Grid
→ Data (+)	Erase Border
Ready R	~ I

# 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. You 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				