Activity 09 - Working with Logical Functions

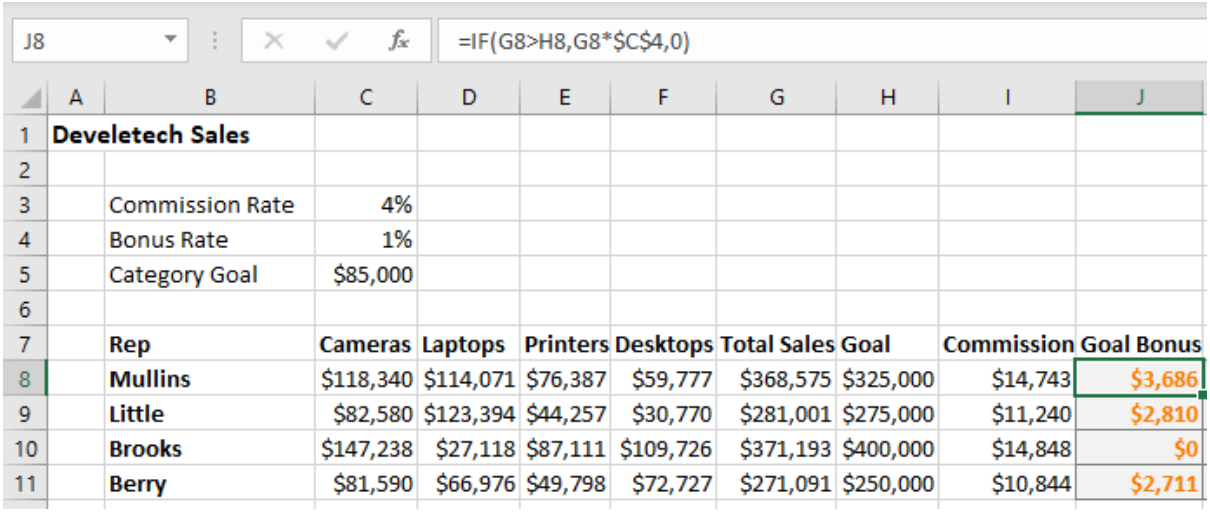
Before You Begin

The My Current Projects.xlsx workbook is open.

Scenario

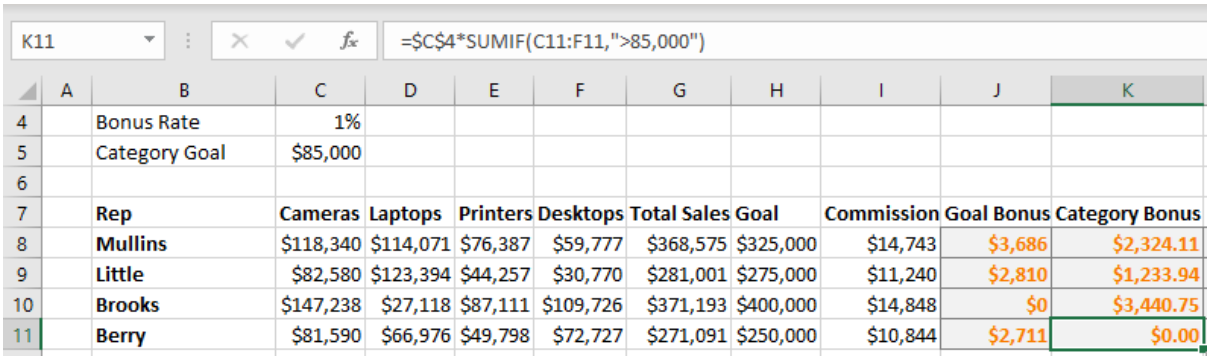
Heading the sales team at Develetech, you have recommended a compensation structure such that a 1 percent bonus on their total sales will be given to all salespersons who exceed their sales goals. Additionally, for each category with sales greater than $85,000, they will be given a bonus of 1 percent of that category's sales. You also want to count the number of times an employee achieves the category goal. You will use logical functions to quickly and easily calculate these bonuses.

1) Enter a function to calculate the 1 percent goal bonus for employees.
   a) Select the **Bonus** worksheet.
   b) Verify that cell **J8** is selected and type ***=IF(***
   c) On the **Formula Bar**, select **Insert Function**.
   d) In the **Logical_test** text box, type ***G8>H8*** and press **Tab**.
      You may wish to move the **Function Arguments** dialog box just below the row you are working on to act as a guide.
   e) In the **Value_if_true** text box, type ***G8*$C$4*** and press **Tab**.
   f) In the **Value_if_false** text box, type ***0*** and select **OK**.
   g) AutoFill the formula in cells **J9:J11** to calculate the goal bonus for the remaining employees.
      Verify that a goal bonus has been earned by all but one employee.



	A	B	C	D	E	F	G	H	I	J
1		**Develetech Sales**								
2										
3		Commission Rate	4%							
4		Bonus Rate	1%							
5		Category Goal	$85,000							
6										
7		**Rep**	**Cameras**	**Laptops**	**Printers**	**Desktops**	**Total Sales**	**Goal**	**Commission**	**Goal Bonus**
8		**Mullins**	$118,340	$114,071	$76,387	$59,777	$368,575	$325,000	$14,743	$3,686
9		**Little**	$82,580	$123,394	$44,257	$30,770	$281,001	$275,000	$11,240	$2,810
10		**Brooks**	$147,238	$27,118	$87,111	$109,726	$371,193	$400,000	$14,848	$0
11		**Berry**	$81,590	$66,976	$49,798	$72,727	$271,091	$250,000	$10,844	$2,711

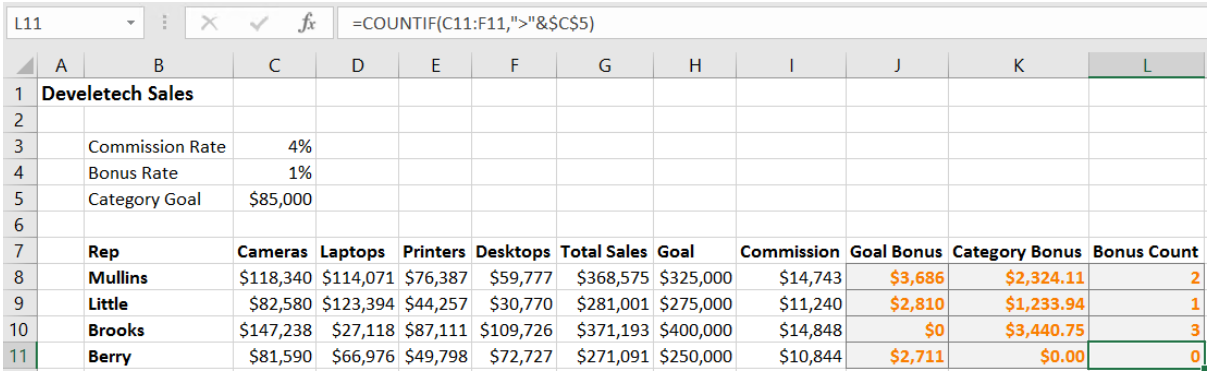
2) Enter a formula to calculate the category bonus, 1 percent of the sales for each category above $85,000, for the employees.
   a) Select cell **K8** and type ***=$C$4*SUMIF(***
   b) On the **Formula Bar**, select **Insert Function**.
   c) In the **Function Arguments** dialog box, in the **Range** text box, type ***C8:F8*** and press **Tab**.
   d) In the **Criteria** text box, type ***>85,000*** and select **OK**.
   e) AutoFill the formula in cells **K9:K11** to calculate the category bonus for the remaining employees.
   Verify that all employees except one received a category bonus.



K11 | =$C$4*SUMIF(C11:F11,">85,000")

	A	B	C	D	E	F	G	H	I	J	K
4		Bonus Rate	1%								
5		Category Goal	$85,000								
6											
7		**Rep**	**Cameras**	**Laptops**	**Printers**	**Desktops**	**Total Sales**	**Goal**	**Commission**	**Goal Bonus**	**Category Bonus**
8		**Mullins**	$118,340	$114,071	$76,387	$59,777	$368,575	$325,000	$14,743	$3,686	$2,324.11
9		**Little**	$82,580	$123,394	$44,257	$30,770	$281,001	$275,000	$11,240	$2,810	$1,233.94
10		**Brooks**	$147,238	$27,118	$87,111	$109,726	$371,193	$400,000	$14,848	$0	$3,440.75
11		**Berry**	$81,590	$66,976	$49,798	$72,727	$271,091	$250,000	$10,844	$2,711	$0.00

3) Enter a function to calculate the number of times each employee received a category bonus.
   a) In cell **L8**, type ***=COUNTIF(C8:F8,">"&$C$5)*** and press **Enter**.
   The ampersand (&) character used here concatenates the greater than (>) operator enclosed in quotes and the value of the cell C5 together, joining the criteria argument for Excel to evaluate as >85,000.
   b) AutoFill the formula in cells **L9:L11** to calculate the number of category bonuses for the remaining employees.
   Verify the counts of each category bonus.



L11 | =COUNTIF(C11:F11,">"&$C$5)

	A	B	C	D	E	F	G	H	I	J	K	L
1	**Develetech Sales**											
2												
3		Commission Rate	4%									
4		Bonus Rate	1%									
5		Category Goal	$85,000									
6												
7		**Rep**	**Cameras**	**Laptops**	**Printers**	**Desktops**	**Total Sales**	**Goal**	**Commission**	**Goal Bonus**	**Category Bonus**	**Bonus Count**
8		**Mullins**	$118,340	$114,071	$76,387	$59,777	$368,575	$325,000	$14,743	$3,686	$2,324.11	2
9		**Little**	$82,580	$123,394	$44,257	$30,770	$281,001	$275,000	$11,240	$2,810	$1,233.94	1
10		**Brooks**	$147,238	$27,118	$87,111	$109,726	$371,193	$400,000	$14,848	$0	$3,440.75	3
11		**Berry**	$81,590	$66,976	$49,798	$72,727	$271,091	$250,000	$10,844	$2,711	$0.00	0

4) Save the workbook and keep the file open.