Assignment - 7

Expenses

Open the file T2 - Expenses

Check that you're signed in with your Google Account (your avatar will appear in the top-right-hand corner; if it says "Sign In" then sign in).

Go to File > Make a copy. It will make an editable copy of the file in your Google Drive.

Details of expense claims are entered on the Expenses tab. Summary information is calculated on the Summary tab, which also includes the value at which an expense must be checked with the manager.

1- To make later formulae simpler, name cell B2 check Limit on the Summary tab.

2. Switch to the Expenses sheet:

   a) In cell E2 construct an IF function that will display "Check with manager" if the amount in D2 is *greater than* the check limit set in the cell you just named (i.e. D2>checkLimit); otherwise it should display "ok".

   b) Copy the formula down the column and check it has replicated correctly.

   c) Also try changing the value for the check limit (on Summary) - messages should change appropriately.

3. Switch to the Summary tab:

   a) In cell B4 enter a function to count the total number of date entries in Expenses column A.

   b) In cell B5 enter a function to total the amounts in Expenses column D

Holidays

Open the file T2 - Hols

Switch to the Hols tab. This sheet is used in conjunction with HolsAdmin, to calculate the cost of a group of people staying for several nights at a campsite.

The arrival and departure dates for a holiday have been entered in cells D1 and D2 of the Hols tab, and details of the holidaying party are entered from row 9 downwards. This information, together with values for discounts for concessions and larger groups, will be used to calculate the cost of the holiday.

In order to make formulae easier to work with, cells containing key values will be configured as named ranges: these names can then be used in the formulae without having to worry about using dollar notation for absolute references.

1. Create named ranges for the key data cells, as shown below:

sheet tab	cell	name	purpose
Hols	D3	days	number of days to be charged
	D4	partySize	total number of people in party
HolsAdmin	B1	dailyRate	standard daily charge per person

	B3	vatRate	VAT rate to be applied to final bill

	E1	concessionDiscount	discount rate for concessions
	H1	partyLimit	number in party at which discount is applied
	H2	partyDiscount	discount rate for larger parties

Note: the names are also shown as notes on the appropriate cells.

2. A quick calculation: Back on the Hols tab, in cell D3, work out the length of the holiday in days by subtracting the arrival date from the departure date. Ensure this is formatted as a number.

3. In cell D4, count how many people are in the party (use the list of names in column B) - you'll need to use COUNTA (not COUNT) as you are counting text rather than numbers. To allow for the possibility of people being added to or removed from the list, count the whole column but subtract 1 from your count to take into account the label at the top ('Name').

4. The cells in column E, starting with E9, need to calculate the daily rate for each person. Those being charged the standard daily rate are marked with an 's' in column C; those qualifying for the concession discount are shown by a 'c' in column C. Use an IF function with these values to calculate the appropriate charge in E9. Here's a breakdown of the arguments we might use:

   a. To test if the person qualifies for a concession we can use: C9= "c"

   b. If a person qualifies for a concession (i.e. if C9 does equal "c"), the calculation we need (using the named ranges we created) is: dailyRate-(dailyRate*concessionDiscount)

   c. If a person does *not* qualify for a concession then the value is simply the:

      dailyRate.

5. Copy the formula down the column and check it is correctly identifying concessions.

Note: You may notice that this formula still generates a daily cost for rows where there is no person entered - this could be rectified by using a more complex formula, but for now simply copy it only as far as the last name.

6. Now two easier bits:

   a) In cell H1 calculate the total daily charge for the whole party by adding together the values in column E (for maximum flexibility total the whole column).
   b) In cell H2, use the figure you just created to calculate the overall charge incurred by the party across the number of days in the holiday - you worked out the number of days in step 2 and you named its cell in step 1.

7. In cell H3 a large party discount needs to be calculated IF the number of people in the group is greater than or equal to the large party limit on the HolsAdmin tab. Use named cells again wherever you can. There's a subtle hint above as to which function you may need!

8. Complete the calculations on the Hols tab in cells H4 to H6:

   a) H4 - subtract the party discount from the charge for visit.

   b) H5 - calculate VAT for the amount in H4 (remember vatRate is a named cell).

   c) H6 - add the VAT to the cost of the visit to find the total amount payable.

9. Make some changes to the composition of the party to check values are changing as they should, in particular, to ensure the larger party discount is only applied when it should be.

10. Make some changes to key admin values such as the size of a 'larger' party and the concessions discount rate.
Further Conditionals