

KS4 - Spreadsheets

# Lesson 5: RSC Stock Control

Kashif Ahmed

*Materials from the Teach Computing Curriculum created by the National Centre for Computing Education*



# Task 1 - After the beep

Using the **Lesson 5 starter** spreadsheet

- On the left are statements about the advantages of barcodes
- Select a matching disadvantage from the drop-down list on the right
- The spreadsheet will show when a correct match is made



## Task 2 - Complete the model - part 1

Enter an item number in cell **A8** of the '**RSC merchandise database**' spreadsheet. There are lookup formulae already entered in cells B8, C8, and D8.

In the 'RSC merchandise' sheet, cell B8 has this formula:

**=VLOOKUP(A8,'Lookup sheet'!\$A\$2:\$C\$17,3,FALSE)**

We are looking up the contents of cell **A8**.



## Task 2 - Complete the model - part 2

You can use the fill handle to drag this formula down to the cells below. But, if you want to type it yourself: after typing the first comma, use the mouse to click on the 'Lookup sheet' and then select the cells **A2-C17**.

Click the mouse between **A** and **2** in the formula and press the F4 key to make the range ABSOLUTE – or type it out, whichever you find easier!

The 3 refers to the third column of 'Lookup sheet'.  
**FALSE** asks for an exact match to be found.



## Task 2 - Complete the model - part 3

There is another lookup formula in cell C8:

**=VLOOKUP(A8,'Lookup sheet'!\$A\$2:\$E\$17,4,FALSE)**

This returns the selling price of the item including VAT.

There is another lookup formula in cell D8:

**=VLOOKUP(A8,'Lookup sheet'!\$A\$2:\$E\$17,5,FALSE)**

This returns the amount of VAT paid on the item.

**Note:** The lookup list must be sorted in ascending order on the lookup value, in this case column A of 'Lookup sheet', which holds the item number.



# Task 2 - Complete the model - part 4

## Enter some data

In cells E8–E28 enter a number to indicate how many of each item have been sold.

Number Sold
1000
953
703
402



## Task 2 - Complete the model - part 5

In cells **G8–G28** enter a number for an initial stock level; for example, we could start out with 1000 of each item.

In Stock
1000
1000
1000
1000
1000



## Task 2 - Complete the model - part 6

There is a formula in cell **H8**, **=G8-E8**, which subtracts the number of each item sold from the amount in stock to calculate a remaining stock level.

Remaining Stock
1
0
297



## Task 3 - Add a status output - part 1

In the final column (I8–I28) we will flag up when an item needs to be reordered.

In cell I8 there is a formula for this; use the **fill handle** to drag it down to **I28**.

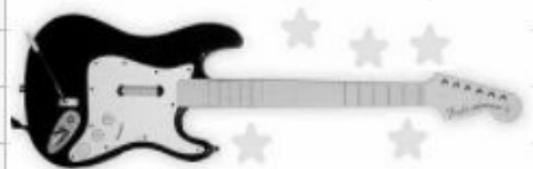
```
=IF(H8<100,"Reorder","")
```

If the 'Remaining Stock' is less than 100, output the text, else output nothing



## Task 3 - Add a status output - part 2

Colour code the cells that a user should **not** manually make changes to, this will help reduce user error.

	A	B	C	D	E	F	G	H	I
1	 <b>Rock star challenge merchandise database</b>								
2									
3									
4									
5									
6									
7	Item number	Short name	Selling	VAT paid	Number	Input check	In stock	Remaining	Status
8	1001001	Bball Cap	£15.00	£2.25	850		1000	150	
9	1001002	Bucket Hat	£18.00	£2.70	8		1000	992	
10	1001003	Wool Hat	£20.00	£3.00	703		1000	297	
11	1001004	Guitar T Sml	£30.00	£4.50	900		1000	100	



## Task 4 - Conditional formatting - part 1

In the final column (I8–I28), the cells will either be blank or will show the text 'Reorder'.

A conditional format could be added to these cells to add a stronger visual reminder for the user.



# Task 4 - Conditional formatting - part 2

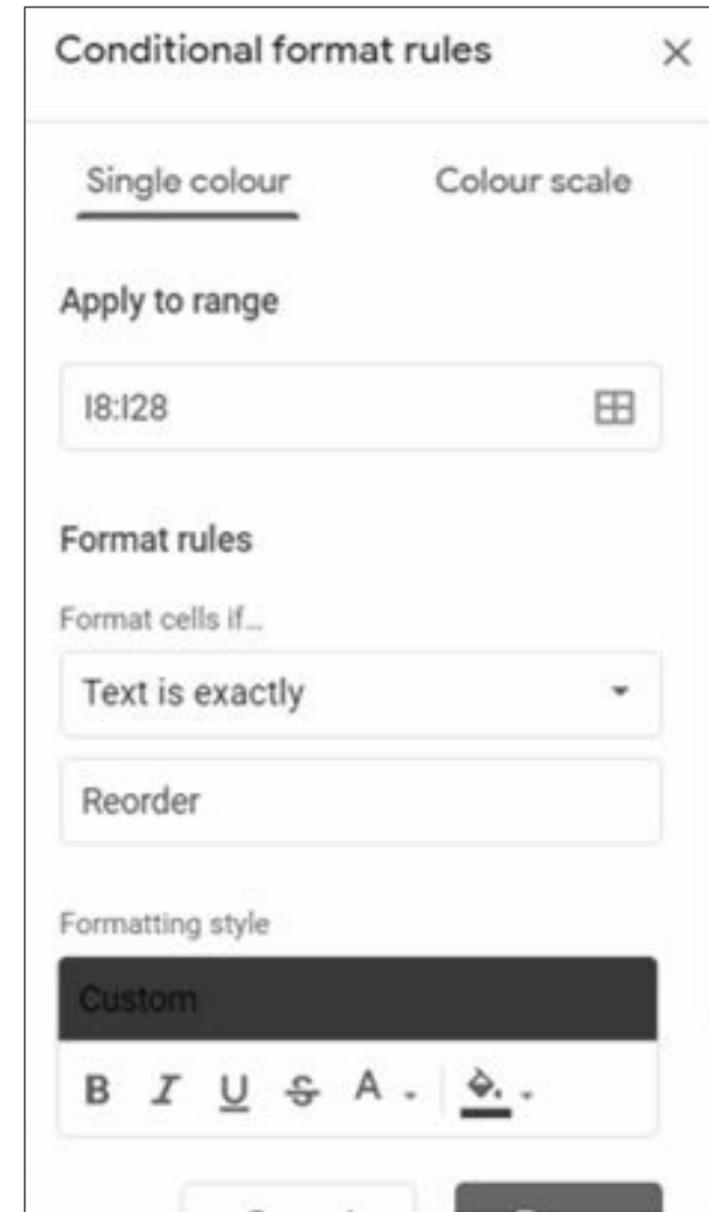
Highlight the cells **I8:I28**

Click **Format** -> **Conditional formatting**

Under the **Format rules** section, click on the dropdown and select **Text is exactly**

Enter the word **Reorder** in the field below.

Under the **Format style** section, click on the paint bucket tool and select the colour **red**



## Task 4 - Conditional formatting - part 3

In the final column (H8–H28), the cells show the remaining stock. Apply conditional formatting to highlight negative stock levels.

A conditional format could be added to these cells to add a stronger visual reminder for the user.

Remaining stock
-1
992



# Task 4 - Conditional formatting - part 4

Highlight the cells **H8:H28**

Click **Format** -> **Conditional formatting**

Under the **Format rules** section, click on the dropdown and select **Less than**

Enter the number **0** in the field below.

Under the **Format style** section, click on the paint bucket tool and select the colour **orange**

Conditional format rules

Single colour Colour scale

Apply to range

H8:H28

Format rules

Format cells if...

Less than

0

Formatting style

Custom

B I U ABC A

Cancel Done



## Task 4 - Conditional formatting - part 5

In the final column (F8–F28), the cells show the remaining stock. Apply conditional formatting to highlight the **CHECK INPUT** text.

A conditional format could be added to these cells to add a stronger visual reminder for the user.



# Task 4 - Conditional formatting - part 6

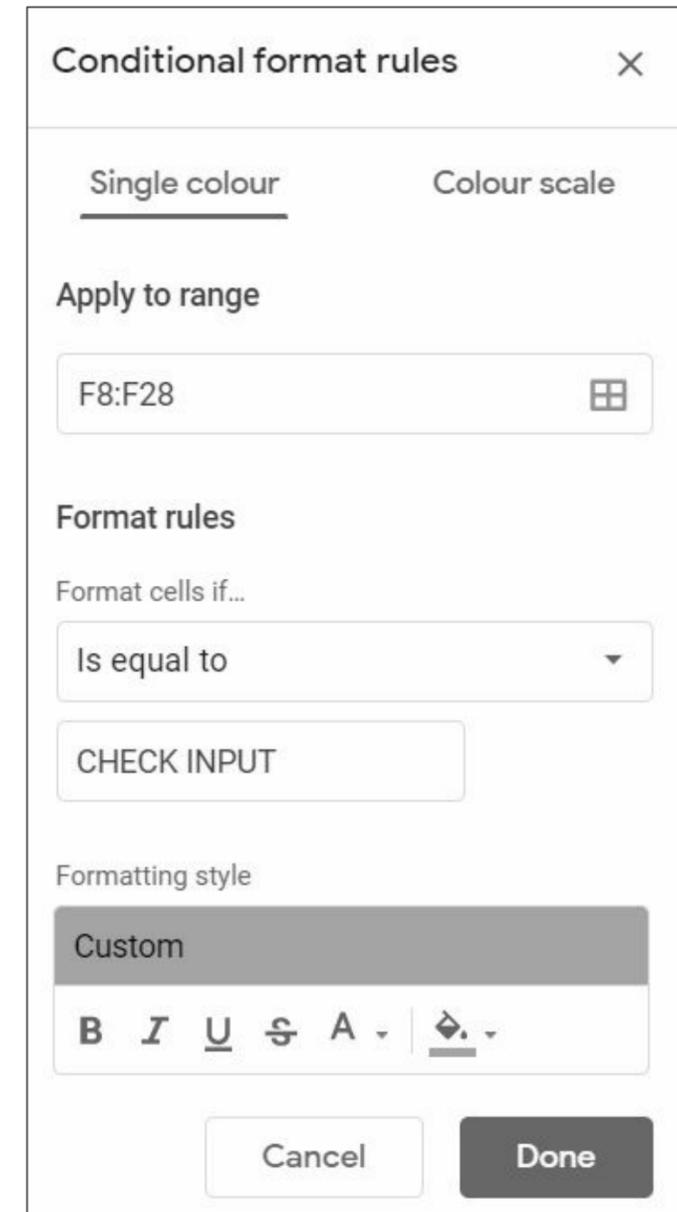
Highlight the cells **F8:F28**

Click **Format** -> **Conditional formatting**

Under the **Format rules** section, click on the dropdown and select **Is equal to**

Enter the word **CHECK INPUT** in the field below.

Under the **Format style** section, click on the paint bucket tool and select the colour **orange**



Conditional format rules

Single colour      Colour scale

Apply to range

F8:F28

Format rules

Format cells if...

Is equal to

CHECK INPUT

Formatting style

Custom

B I U S A

Cancel Done



# Task 5 - Testing the database - part 1

## Check

What happens if the item number entered is incorrect?

## Change

- Change the VAT rate to 15%; change it to 21%. Check that each change correctly affects the cells in column E of 'Lookup sheet' and column D of 'RSC merchandise sheet'.
- Change the **IF** formula in **I8-I28** ('RSC merchandise sheet') to display a message when the stock level falls below 50.



## Task 5 - Testing the database - part 2

Not all items need the same trigger level to reorder stock. Some items will sell in greater numbers than others, for example the cheaper items are likely to sell more than the more expensive items, and large t-shirts and hoodies will sell in lower numbers than the small and medium sizes.

Change the stock reorder levels for the cheaper items (keyrings, posters) and the expensive items (large hoodies and t-shirts) to reflect this.



# Task 5 - Testing the database - part 3

## Add

Add some more items to 'Lookup sheet', then add these items to 'RSC merchandise sheet'. Ensure that all the necessary cells are formatted correctly, e.g. currency, etc. Check that the formulas work correctly.

