

# Advanced Spreadsheets

**Microsoft Excel 2013**



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### **First Edition 2015**

Published in the Republic of South Africa, Cape Town

**ISBN:** 978-1-920557-47-8

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## How to use this Manual

Using this manual you will encounter the following features:



### Let's Remember!

**Take note of the informative reminders.**

### Let's Do It!

Practical Exercises.

This is a practical guide for anyone using *Microsoft® Office 2013* software.

**Copy** and **paste** the complete **Adv Spreadsheets** folder from Specto website ([www.specto.co\data](http://www.specto.co\data)) to the hard drive (C-Drive) of your computer. Open the templates from this folder. A separate folder can be created to save completed exercises if necessary. Additional templates are provided for demonstration and practise purposes. Where a template is available, it will be mentioned at the beginning of a section.

Model answers for all exercises are provided in the **Model Answers** folder.

This manual was written using *Windows® 10*. If a different operating system is used, some dialog boxes may look different, but the content is the same.

A screen resolution of *1366 x 768* was used in compiling this manual. Working in a different screen resolution, or with an application window which is not maximized, will change the look of the *Office 2013 Ribbon*. The *Ribbon* appearance is dynamic, as it will change to fit the space available. For example, the full *Ribbon* may show a group containing several options, but if space is restricted it may show a single button that you need to click to see the same options.

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## Module Goals

**Advanced Spreadsheets** requires the candidate to use the spreadsheet application to produce advanced spreadsheet outputs.

The candidate shall be able to:

- ↗ Apply advanced formatting options such as conditional formatting and customised number formatting and handle worksheets.
- ↗ Use functions such as those associated with logical, statistical, financial and mathematical operations.
- ↗ Create charts and apply advanced chart formatting features.
- ↗ Work with tables and lists to analyse, filter and sort data. Create and use scenarios.
- ↗ Validate and audit spreadsheet data.
- ↗ Enhance productivity by working with named cell ranges, macros and templates.
- ↗ Use linking, embedding and importing features to integrate data.
- ↗ Collaborate on and review spreadsheets. Apply spreadsheet security features.

## Formatting

**The following outcomes will be covered in this category:**

- ↗ Apply a table style to a cell range
- ↗ Apply conditional formatting based on cell content
- ↗ Create and apply custom number formats
- ↗ Copy or move worksheets between spreadsheets
- ↗ Split a window
- ↗ Hide or show rows, columns or worksheets

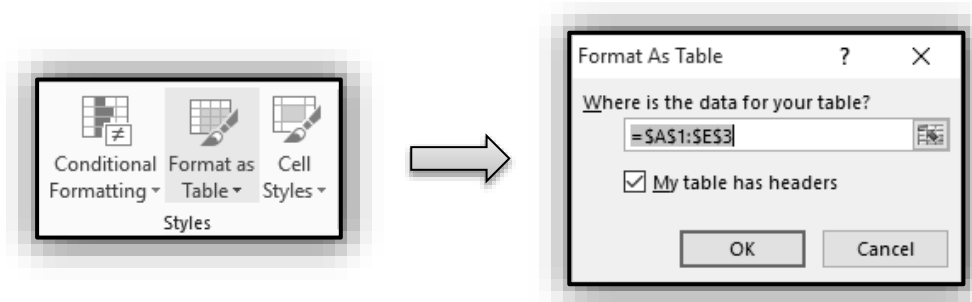
## Cells

### Apply a Table Style to a Cell Range

The **Cells.xlsx** spreadsheet can be used to demonstrate and practice this section.

Data in a spreadsheet can be formatted using pre-set formatting options. These options are the same as for tables in *Word 2013*. This feature makes columns of data easier to read and creates a professional looking spreadsheet.

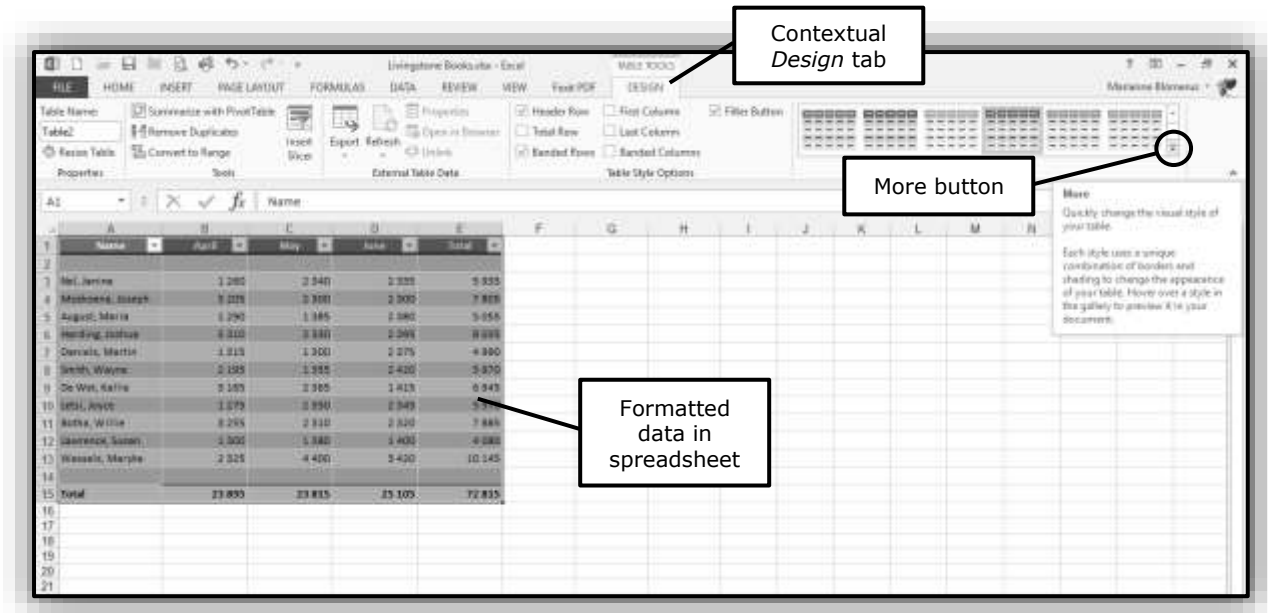
1. Open the spreadsheet you wish to format.
2. Select the relevant cell range.



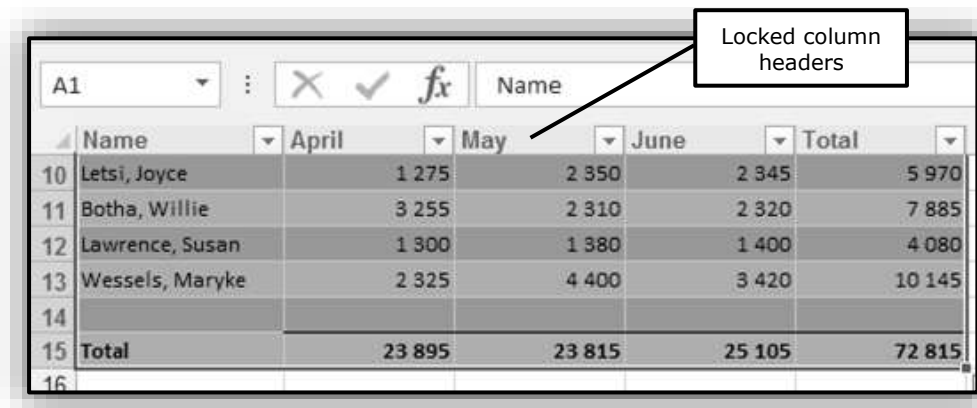
3. On the *Home* tab, in the *Styles* group, click the *Format as Table* button.
4. A gallery with various styles will be displayed, divided in the following sections: *Light*, *Medium* and *Dark*.

5. Select an option from the gallery.
6. The *Format As Table* dialog box will be displayed. If the cell range is correct, click *OK*.
7. The style will be applied to the cell range and the contextual *Design* tab (*Table Tools*) will be displayed.

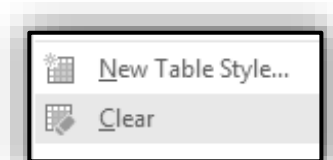
- ↗ If the cell range does not contain **headers**, remove the check mark in the dialog box.
- ↗ To select a different style, keep the range selected and click the *More* button in the *Table Styles* group. Place the mouse pointer on an option to see a preview of the style on the spreadsheet. The name of the style will also be shown as a screen tip. Click the option you want to apply.
- ↗ Use the contextual *Design* tab to apply other settings.



- ↗ The column headers will **lock**, which means that if you scroll through the data, the column headers will always appear on the screen.



- ↗ To **clear** the table style from the cell range, select the cell range. Click the *More* button in the *Table Styles* group. Click *Clear*. The column headers will remain locked even if the table style is removed.



## Apply Conditional Formatting Based on Cell Content

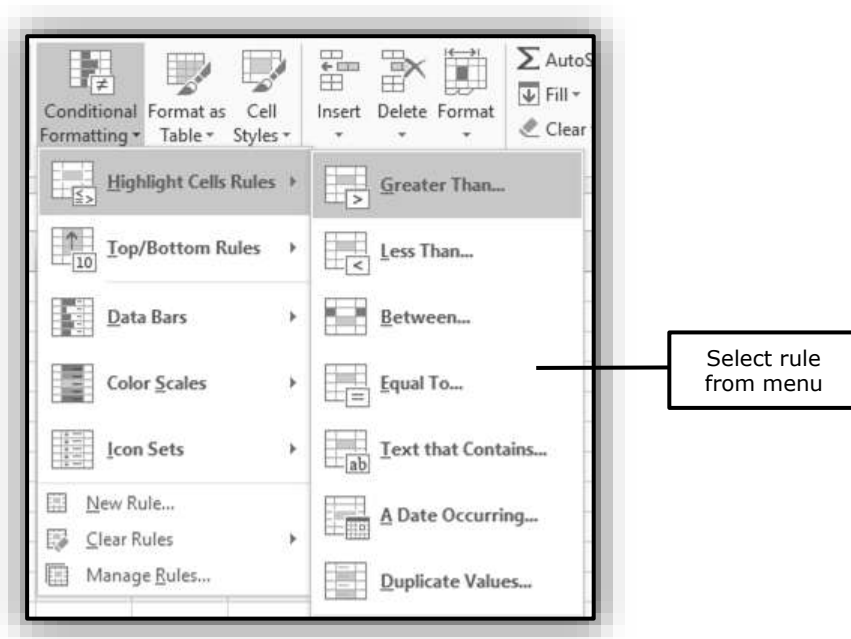
Conditional formatting is a technique to format cells based on one or more rules. It helps you to visually explore and analyse data in a worksheet, detect important issues and identify trends, patterns and exceptions.

There are different methods to apply conditional formatting. A new rule can be created using the *Conditional Formatting* drop-down menu. For example, if a rule is applied to highlight all values greater than a specific value, or values above and below the average for the range. Colour scales and icon sets can also be used. Alternatively, create a new rule by clicking the *Conditional Formatting* button and selecting *New Rule*.

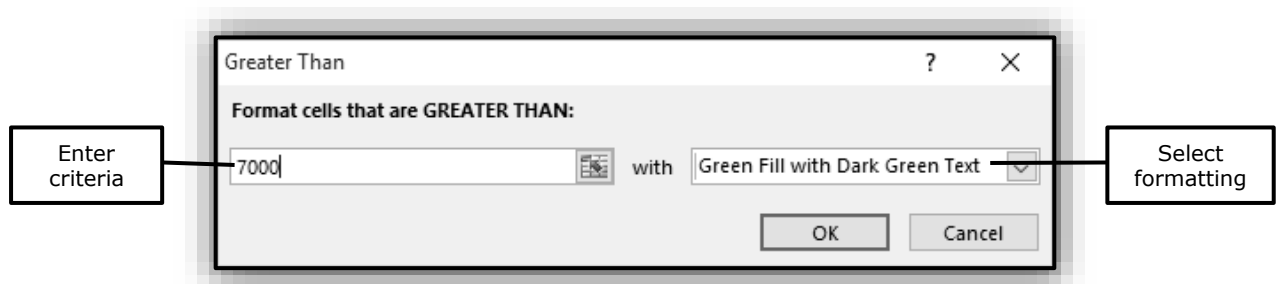
**Example: Highlight Cell Rules (Greater Than)**

Use the **Cells.xlsx** spreadsheet to practice this section. Use the *Vintage*, *Quantity* and *Value per Bottle* columns.

1. Select the relevant cell range.
2. On the *Home* tab, in the *Styles* group, click the *Conditional Formatting* button.
3. Place the mouse on the *Highlight Cell Rules* option. On the side menu, select a rule, e.g. *Greater Than*.
4. The *Greater Than* dialog box will open. Enter the value you want to use as criteria.



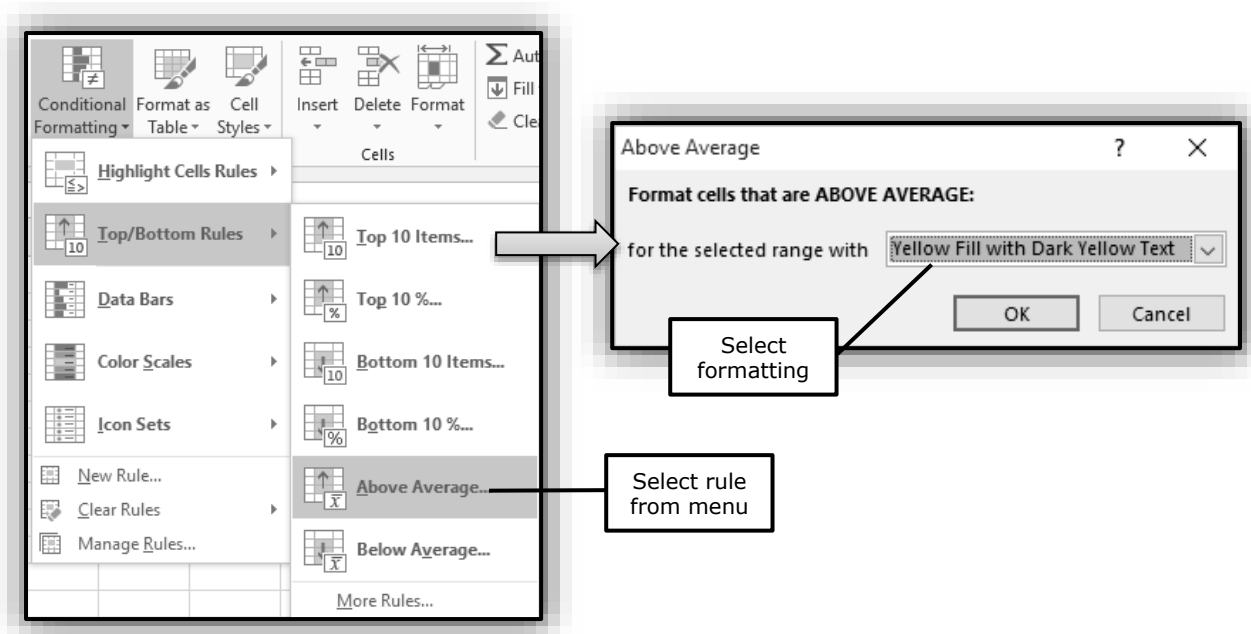
5. Select a formatting option from the list provided.
6. Click *OK*.



↗ If you want to apply different formatting, select *Custom Format* from the list. The *Format Cells* dialog box will open. Select the formatting you want to apply and click *OK*.

**Example: Top/Bottom Rules**

1. Select the relevant cell range.
2. On the *Home* tab, in the *Styles* group, click the *Conditional Formatting* button.
3. Place the mouse on the *Top/Bottom Rules* option. On the side menu, select a rule, e.g. *Above Average*.
4. In the *Above Average* dialog box, select the formatting option from the drop-down list.
5. Click *OK*.



### Example: Data Bars, Colour Scales and Icon Sets

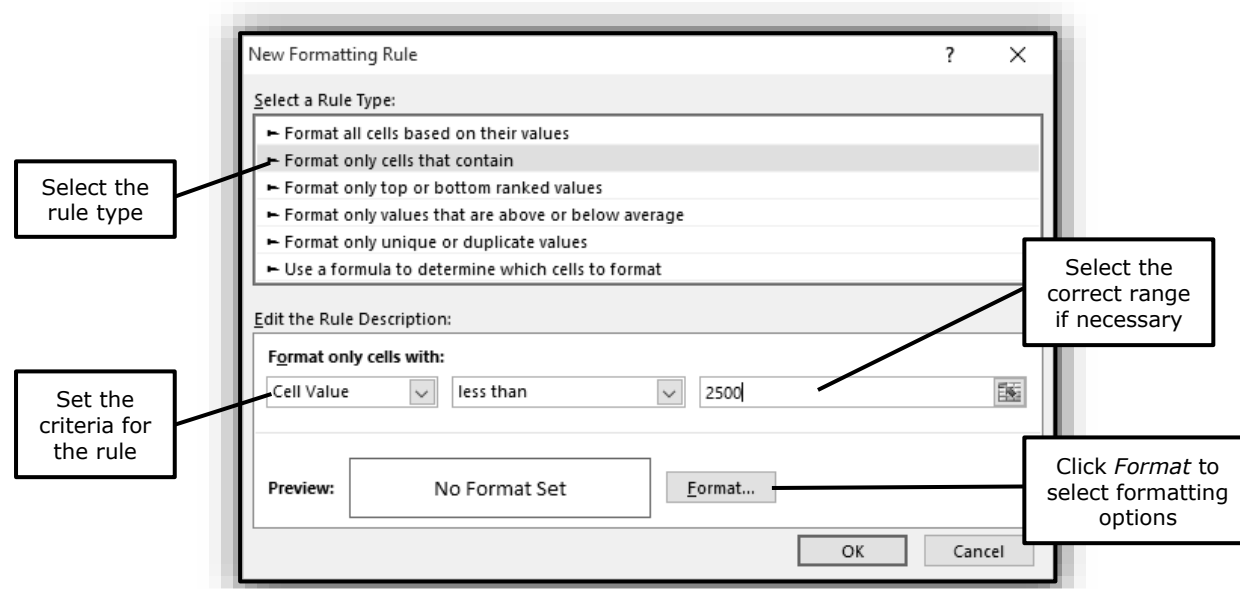
1. Select the relevant cell range.
2. Click the *Conditional Formatting* button in the *Styles* group on the *Home* tab.
3. Place the mouse pointer on the option you want to use, e.g. *Color Scales*. Click the option you want to use from the side menu.
4. The formatting will be applied to the range. Each icon or colour will represent the value in the cell.

Commission	
↑	2 596.48
⇄	2 316.80
⇄	2 231.20
↓	1 540.40
⇄	2 205.12
↑	2 441.60
↓	1 883.84
↓	1 599.60
↑	2 660.32
⇄	2 281.84
↑	2 817.12

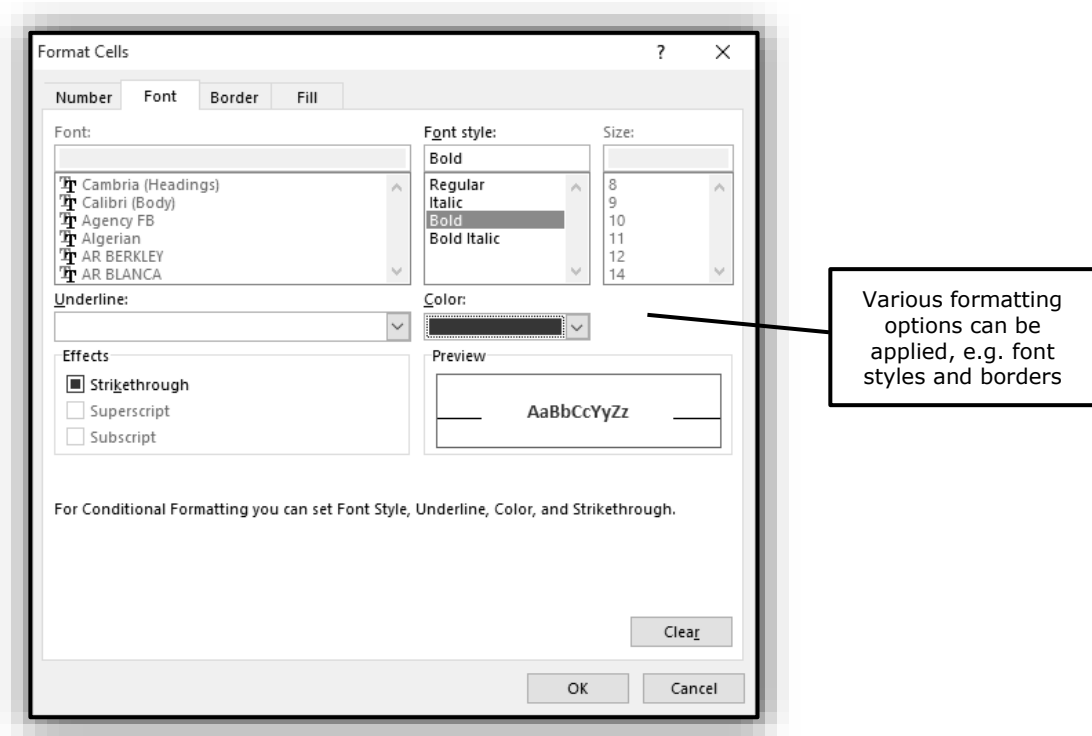
Icon set applied to range of cells

### Example: New Rule

1. Select the relevant cell range.
2. Click the *Conditional Formatting* button on the *Home* tab, in the *Styles* group.
3. From the drop-down menu, select *New Rule*.
4. The *New Formatting Rule* dialog box will open.



5. Select a rule type from the available options, e.g. *Format only cells that contain*.
6. Set the criteria for the rule.
7. Click the *Format* button to select formatting options from the *Format Cells* dialog box.
8. After selecting the desired options, click *OK*.
9. Click *OK* again.

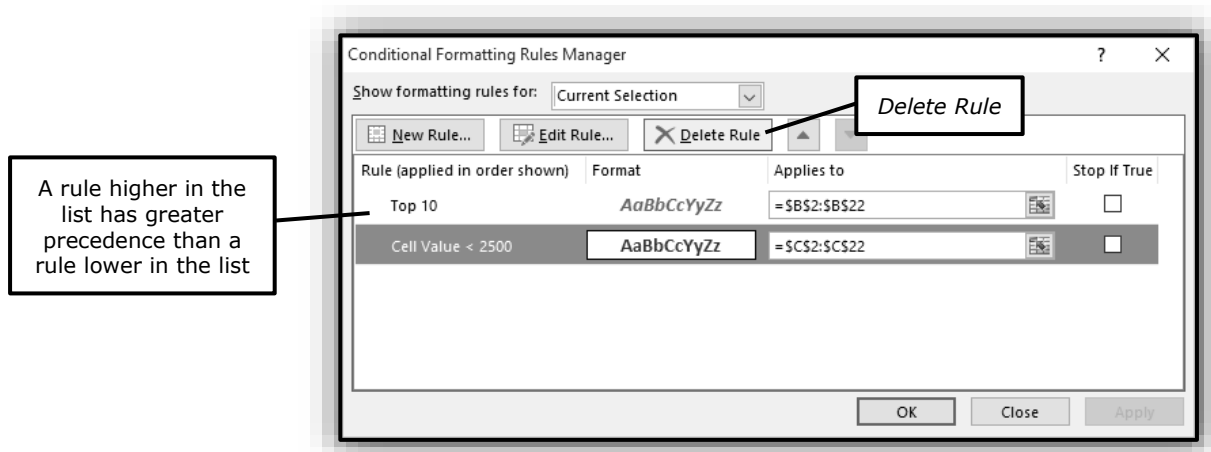


## Remove Conditional Formatting

1. Select the range where you want to remove the rule.
2. On the *Home* tab, click the *Conditional Formatting* button in the *Styles* group.
3. Place the mouse pointer on the *Clear Rules* option on the menu.
4. Select *Clear Rules from Selected Cells*.
5. Select *Clear Rules from Entire Sheet* if you want to remove all conditional formatting.



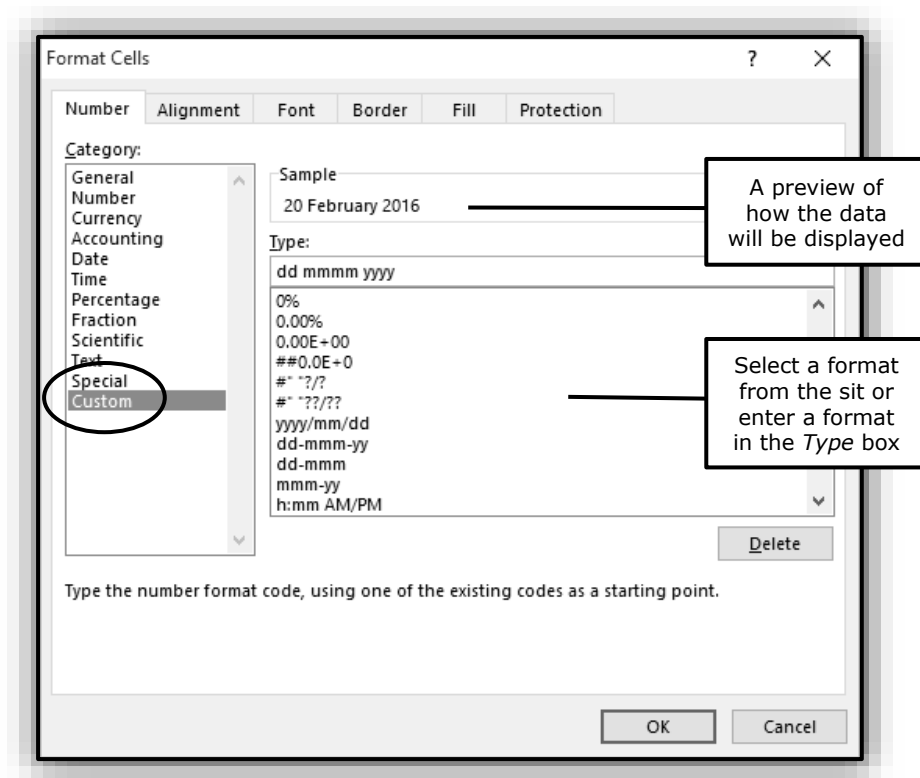
- Alternatively, select *Manage Rules* from the drop-down menu. In the *Conditional Formatting Rules Manager* dialog box, select the rule and then click *Delete Rule*. Click *OK*.



## Create and Apply Custom Number Formats

Values in a spreadsheet can be formatted to currency, text and a date format, but sometimes a specific format is not available from the standard options. A custom number format can be created for spreadsheet entries if you have a particular format that is not already included in *Excel's* predefined number formats.

1. Select the cell or cell range.
2. On the *Home* tab, click the dialog box launcher in the *Number* group.
3. The *Format Cells* dialog box will open.
4. In the *Category* list, click *Custom*.
5. A list of available custom formats will be displayed below *Type*.
6. Click the format you want to use or enter the correct format in the *Type* box.
7. Click *OK*.



### Examples of Formatting Codes

Before formatting	After formatting	Code
7.5	7.50	#.00
55.84	55.8	##.#
84.651	84.65	##.0#
4500	4,500	#,###
03:55	3:55 AM	h:mm AM/PM
2017/08/03	03/08/17	dd/mm/yy

2017/08/03	3 Aug 2017	d mmm yyyy
26-Aug-17	03 August 2017	dd mmmm yyyy

### Let's Do It! ⇌ 1

1. Open the spreadsheet **Livingstone Books.xlsx**.
2. Apply the table style *Medium 12* to the range **A4:E20**.
3. The date in cell **B23** shows today's date. Format the date to display as the following example: *06 Nov 2017*.
4. The time in cell **B24** shows the current time. Format the time to display as the following example: *08:30 AM*.
5. Change the table style for cell range **A4:E20** to *Light 16*.
6. Remove the table style.
7. Apply the table style *Dark 4* to cell range **A4:E20**.
8. Save and close the spreadsheet.

### Let's Do It! ⇌ 2

1. Open the spreadsheet **Adverts.xlsx**.
2. Apply conditional formatting to all the month totals in row 17 where all the *totals above average* is formatted to a dark green font colour and light green fill colour.
3. Apply the following conditional formatting to the values in column AB that is more than 70 000: bold, dark blue font colour and light blue fill colour.
4. Remove the *Graded Colour Scale* rule from the spreadsheet.
5. Save and close the spreadsheet.

## Worksheets

Worksheets can be copied or moved in the same spreadsheet, but also between spreadsheets. This saves time in that all the information does not have to be entered again.

### Copy, Move Worksheets

#### Move Worksheets between Spreadsheets

The **Worksheets.xlsx** spreadsheet can be used to practice this section.

1. Open the spreadsheet with the worksheet you want to move.
2. Right-click the worksheet tab and select *Move or Copy* from the shortcut menu.
3. The *Move or Copy* dialog box will open.
4. Select where the worksheet must be moved to by clicking the *To book* drop-down list and selecting the relevant spreadsheet. If the worksheet must be moved to a new spreadsheet, select (*new book*). If the worksheet must be moved to an existing spreadsheet, ensure the spreadsheet is open before the worksheet is moved. Select the spreadsheet from the list.
5. Click *OK*.

