

CHAPTER 1

InFocus

FILL TECHNIQUES

Filling refers to the process of filling cells with data. It is very much like copying the contents of one cell to another, and in some cases does exactly that. In other situations, filling can create a series of data items in consecutive cells.

In this session you will:

- ✓ learn how to create a custom fill list
- ✓ learn how to modify a custom fill list
- ✓ learn how to delete a custom fill list
- ✓ learn how to use **Flash Fill** to extract text data
- ✓ learn how to perform more complex extractions using **Flash Fill**
- ✓ learn how to extract dates and values using **Flash Fill**.

CREATING A CUSTOM FILL LIST

Most of Excel's filling techniques come from pre-created, built-in lists. For example, the names of the months are stored in a list that is accessed when you attempt to fill a range based on the

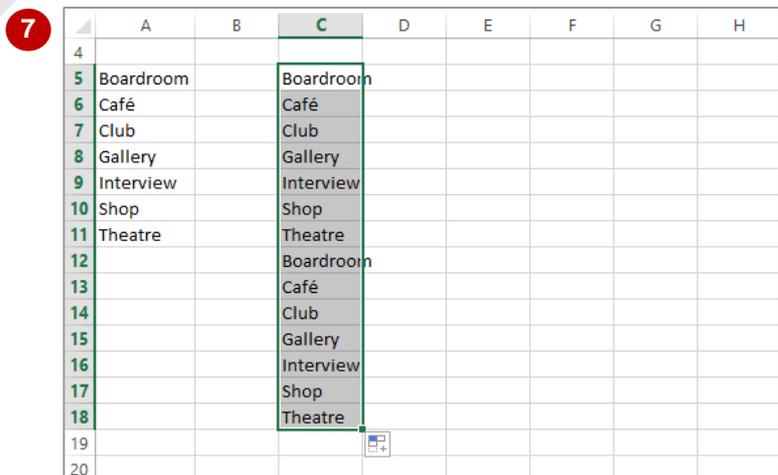
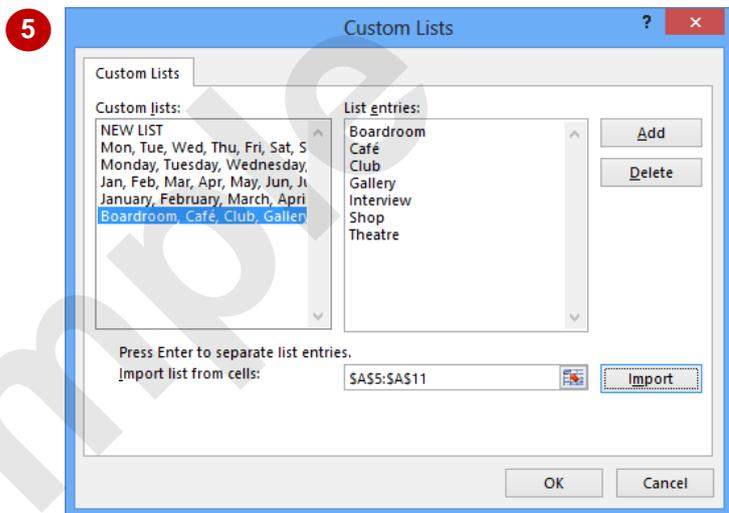
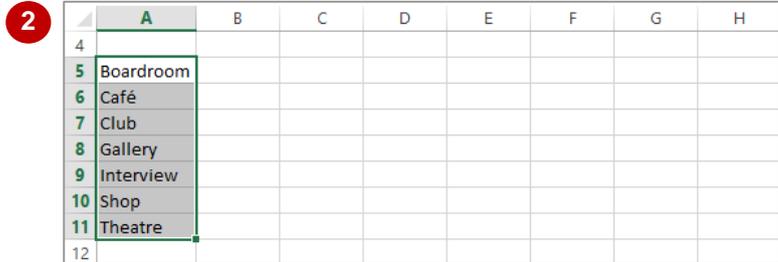
name of one of those months that is in the list. You can also create your own **custom lists** to use for fill operations.

Try This Yourself:

Open File

Before starting this exercise you **MUST** open the file *E1307 Filling Data_5.xlsx...*

- 1 Click on the **Custom Series** worksheet tab
- 2 Click in cell **A5**, hold down **Shift**, then click in cell **A11** to select the range **A5:A11**
- 3 Click on the **FILE** tab, then click on **Options** to display the **Excel Options** dialog box
- 4 Click on **Advanced** in the list on the left, scroll to **General** and click on **[Edit Custom Lists]** to display the **Custom Lists** dialog box
- 5 Click on **[Import]** to import the selected text into the **Custom lists**
- 6 Click on **[OK]** to close each dialog box and return to the worksheet
- 7 Click in cell **C5**, type **Boardroom**, then click and drag the fill handle down to cell **C18**



For Your Reference...

To **create** a **custom list**:

1. Type and select the list in the worksheet
2. Click on the **FILE** tab, then click on **Options**
3. Click on **Advanced**, then click on **[Edit Custom Lists]**
4. Click on **[Import]**, then click on **[OK]**

Handy to Know...

- You can create new custom lists in the **Custom Lists** dialog box by selecting **NEW LIST** in **Custom lists**, then click in **List entries** and type the entries in the required order. When you have completed the list, click on **[Add]**.

MODIFYING A CUSTOM FILL LIST

You can modify custom fill lists using the **Custom Lists** dialog box, which is accessed from the **Excel Options** dialog box. You can modify a list by displaying the list entries, making the required

changes, then clicking on **[Add]** to update them. You cannot however modify the standard, built-in lists that Microsoft Excel provides.

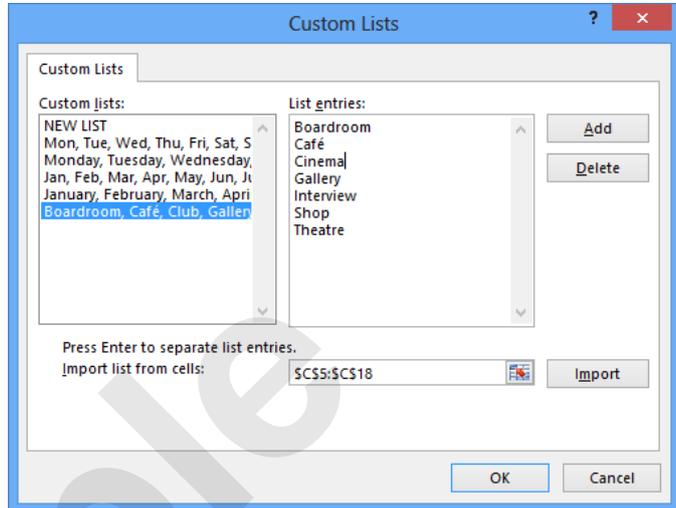
Try This Yourself:

Same File

Continue using the previous file with this exercise, or open the file *E1307 Filling Data_6.xlsx*...

- 1 Click on the **FILE** tab, then click on **Options** to display the **Excel Options** dialog box
- 2 Click on **Advanced** in the list on the left, scroll to **General**, then click on **[Edit Custom Lists]** to display the **Custom Lists** dialog box
- 3 Click on **Boardroom, Cafe...** in **Custom lists** to see the **List entries** for this series
- 4 Double click on **Club** in **List entries** to select it and type **Cinema**
- 5 Click on **[Add]** to update the list, then click on **[OK]** to close each dialog box
- 6 Click in cell **C5**, then click and drag the fill handle down to cell **C18** to update the list with the new item

4



6

	A	B	C	D	E	F	G
4							
5		Boardroom	Boardroom				
6		Café	Café				
7		Club	Cinema				
8		Gallery	Gallery				
9		Interview	Interview				
10		Shop	Shop				
11		Theatre	Theatre				
12			Boardroom				
13			Café				
14			Cinema				
15			Gallery				
16			Interview				
17			Shop				
18			Theatre				
19							
20							

For Your Reference...

To **modify a custom fill list**:

1. Click on the **FILE** tab and click on **Options**
2. Click on **Advanced**, then click on **[Edit Custom Lists]**
3. Click on the list to be modified

For Your Reference (cont'd)...

4. Change the entries as required
5. Click on **[Add]**
6. Click on **[OK]** to close each dialog box

DELETING A CUSTOM FILL LIST

Custom fill lists are available system-wide. This means that no matter which workbook you have open, everyone will be able to access and use your custom fill lists. As custom fill lists become

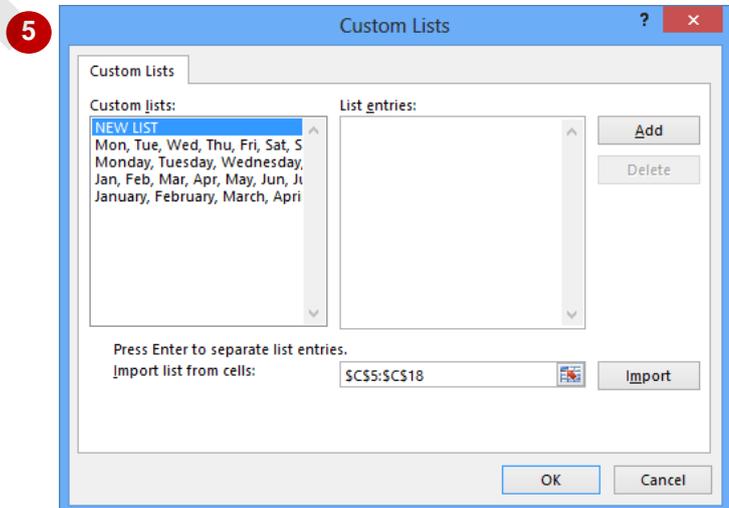
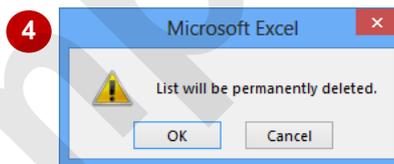
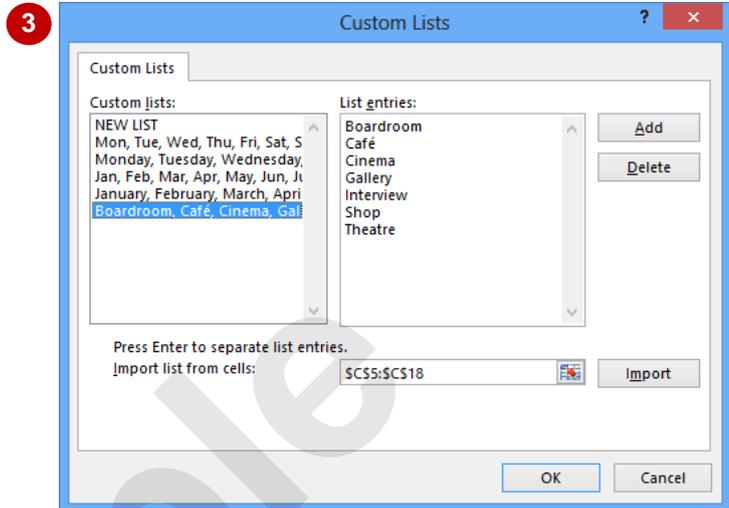
out-dated or are no longer needed they can easily be **deleted** from the **Custom Lists** dialog box.

Try This Yourself:

Same File

Continue using the previous file with this exercise, or open the file *E1307 Filling Data_7.xlsx...*

- 1 Click on the **FILE** tab, then click on **Options** to display the **Excel Options** dialog box
- 2 Click on **Advanced** in the list on the left, scroll to **General**, then click on **[Edit Custom Lists]** to display the **Custom Lists** dialog box
- 3 Click on **Boardroom, Cafe...** in **Custom lists** to see the **List entries** for this series
- 4 Click on **[Delete]** to start the deletion process
Excel will now warn you that the list will be permanently deleted from the system...
- 5 Click on **[OK]** to delete the list
- 6 Click on **[OK]** to close each dialog box and return to the workbook



For Your Reference...

To **delete** a **custom fill list**:

1. Click on the **FILE** tab, then click on **Options**
2. Click on **Advanced**
3. Click on **[Edit Custom Lists]** in **General**
4. Click on the list to be modified

For Your Reference (cont'd)...

5. Click on **[Delete]**
6. Click on **[OK]** to confirm the deletion
7. Click on **[OK]** to close the dialog boxes

EXTRACTING WITH FLASH FILL

The normal **fill** operation is used to fill cells with either copied data or a series based on content in adjacent cells. **Flash Fill** will fill cells with pattern matches extracted from adjacent cells. These

matches are based on an example that needs to be entered into the first **fill** cell. While normal **fill** looks for a pattern between cells, **Flash Fill** looks for patterns within one or more cells.

Try This Yourself:

Open File

Before starting this exercise you **MUST** open the file *E1307 Filling Data_8.xlsx...*

1

Click in cell **B2**, type **Wilson**, then press **Ctrl** + **Enter**

Pressing **Ctrl** + **Enter** enters data in the cell but keeps the cell active rather than moving down to the next cell...

2

Click on the **HOME** tab, click on **Fill** in the **Editing** group, then click on **Flash Fill**

All of the last names of the members will now be extracted to column B...

3

Type **Roger**, then press **Ctrl** + **Enter** to update the list with first names

4

Click in cell **C2**, type **Wilson**, then press **Ctrl** + **Enter**

5

Click on **Fill** in the **Editing** group, then click on **Flash Fill** to extract the last names

6

Click in cell **D2**, type **RW**, then press **Ctrl** + **Enter**

7

Click on **Fill** in the **Editing** group, then click on **Flash Fill** to extract the initials of the members

1

	A	B	C	D	E	F	G
1	Member						
2	Roger Wilson	Wilson					
3	Mary Driscoll						
4	Kate Foo						
5	Julie Gregory						
6	Peter Harrison						
7	Harold Lowe						
8	Oscar Renn						
9	Melinda Wrill						
10	Fred Jackson						
11	Mary Lewis						
12							

2

	A	B	C	D	E	F	G
1	Member						
2	Roger Wilson	Wilson					
3	Mary Driscoll	Driscoll					
4	Kate Foo	Foo					
5	Julie Gregory	Gregory					
6	Peter Harrison	Harrison					
7	Harold Lowe	Lowe					
8	Oscar Renn	Renn					
9	Melinda Wrill	Wrill					
10	Fred Jackson	Jackson					
11	Mary Lewis	Lewis					
12							

7

	A	B	C	D	E	F	G
1	Member		Member	M			
2	Roger Wilson	Roger	Wilson	RW			
3	Mary Driscoll	Mary	Driscoll	MD			
4	Kate Foo	Kate	Foo	KF			
5	Julie Gregory	Julie	Gregory	JG			
6	Peter Harrison	Peter	Harrison	PH			
7	Harold Lowe	Harold	Lowe	HL			
8	Oscar Renn	Oscar	Renn	OR			
9	Melinda Wrill	Melinda	Wrill	MW			
10	Fred Jackson	Fred	Jackson	FJ			
11	Mary Lewis	Mary	Lewis	ML			
12							

For Your Reference...

To use **Flash Fill**:

1. Type the data to extract in the cell to the right of the source data
2. Click on the **HOME** tab, then click on **Fill** in the **Editing** group and click on **Flash Fill**

Handy to Know...

- Sometimes **Flash Fill** fills upwards. You'll notice in the example above that the heading *Member* and then the initial for this (*M*) appears above the fill data. You can delete these if they are not wanted.

MORE COMPLEX FLASH FILL EXTRACTIONS

Flash Fill can be a powerful fill tool for extracting data to adjacent cells. In addition to performing simple, single criteria extractions, you can also perform more complex extractions based on

multiple criteria. **Flash Fill** also allows you to insert additional text and data into extractions allowing you to create merged sentences based on extracted and fixed text.

Try This Yourself:

Same File

Continue using the previous file with this exercise, or open the file *E1307 Filling Data_9.xlsx...*

- 1 Click on the **Flash Fill 2** worksheet tab
- 2 Click in cell **C2**, type **Brighton**, then press **Ctrl** + **Enter**
- 3 Click on the **HOME** tab, click on **Fill** in the **Editing** group, then click on **Flash Fill**
All of the suburbs from the longer address cells will now be extracted to column C...
- 4 Ensure that **C2** is still the active cell, type **3186**, then press **Ctrl** + **Enter** to display only the postal codes from the addresses
- 5 Ensure that **C2** is still the active cell, type **Wilson, Roger lives in Brighton**, then press **Ctrl** + **Enter** to display a sentence
The sentence here is made up of extracted data (the last name, initial, and suburb) and also fixed text

	A	B	C	D	E	F
1	Member	Address				
2	Roger Wilson	34 Smith St, Brighton, 3186	Brighton			
3	Mary Driscoll	44 Dorcas St, South Melbourne, 3205	South Melbourne			
4	Kate Foo	67a Victoria Ave, Bentleigh, 3204	Bentleigh			
5	Julie Gregory	12 Ascot Vale Rd, Ascot Vale, 3032	Ascot Vale			
6	Peter Harrison	567 Pacific Hwy, Traralgon, 3844	Traralgon			
7	Harold Lowe	45 Millers Rd, Sunshine, 3020	Sunshine			
8	Oscar Renn	56 Edna St, Moonee Ponds, 3039	Moonee Ponds			
9	Melinda Wrill	722 Davis St, Bentleigh, 3204	Bentleigh			
10	Fred Jackson	98 Nepean St, Brighton, 3186	Brighton			
11	Mary Lewis	34 Reindeer Rd, Christmas Hills, 3775	Christmas Hills			
12						

	A	B	C	D	E	F
1	Member	Address				
2	Roger Wilson	34 Smith St, Brighton, 3186	3186			
3	Mary Driscoll	44 Dorcas St, South Melbourne, 3205	3205			
4	Kate Foo	67a Victoria Ave, Bentleigh, 3204	3204			
5	Julie Gregory	12 Ascot Vale Rd, Ascot Vale, 3032	3032			
6	Peter Harrison	567 Pacific Hwy, Traralgon, 3844	3844			
7	Harold Lowe	45 Millers Rd, Sunshine, 3020	3020			
8	Oscar Renn	56 Edna St, Moonee Ponds, 3039	3039			
9	Melinda Wrill	722 Davis St, Bentleigh, 3204	3204			
10	Fred Jackson	98 Nepean St, Brighton, 3186	3186			
11	Mary Lewis	34 Reindeer Rd, Christmas Hills, 3775	3775			
12						

	A	B	C	D	E	F
1	Member	Address				
2	Roger Wilson	34 Smith St, Brighton, 3186	Wilson, Roger lives in Brighton			
3	Mary Driscoll	44 Dorcas St, South Melbourne, 3205	Driscoll, Mary lives in South Melbourne			
4	Kate Foo	67a Victoria Ave, Bentleigh, 3204	Foo, Kate lives in Bentleigh			
5	Julie Gregory	12 Ascot Vale Rd, Ascot Vale, 3032	Gregory, Julie lives in Ascot Vale			
6	Peter Harrison	567 Pacific Hwy, Traralgon, 3844	Harrison, Peter lives in Traralgon			
7	Harold Lowe	45 Millers Rd, Sunshine, 3020	Lowe, Harold lives in Sunshine			
8	Oscar Renn	56 Edna St, Moonee Ponds, 3039	Renn, Oscar lives in Moonee Ponds			
9	Melinda Wrill	722 Davis St, Bentleigh, 3204	Wrill, Melinda lives in Bentleigh			
10	Fred Jackson	98 Nepean St, Brighton, 3186	Jackson, Fred lives in Brighton			
11	Mary Lewis	34 Reindeer Rd, Christmas Hills, 3775	Lewis, Mary lives in Christmas Hills			
12						

For Your Reference...

To perform complex extractions with **Flash Fill**:

1. Type a sample of the data to extract in the cell to the right of the source data
2. Click on the **HOME** tab
3. Click on **Fill** in the **Editing** group and click on **Flash Fill**

Handy to Know...

- The process of joining text together is referred to as **concatenation** in computer jargon. Concatenation can also be achieved by creating special formulas that string the contents of the cells together.

EXTRACTING DATES AND NUMBERS

Flash Fill is a great tool for extracting text into adjacent cells. You can also insert additional fixed text to create complex sentences. **Flash Fill** will also work with dates and numbers. However,

care needs to be taken here especially when numbers are also used in text cells such as addresses.

Try This Yourself:

Same File

Continue using the previous file with this exercise, or open the file *E1307 Filling Data_10.xlsx...*

- 1 Click on the **Flash Fill 3** worksheet tab
- 2 Click in cell **D2**, type **Jan**, then press **Ctrl** + **Enter**
- 3 Click on the **HOME** tab, click on **Fill** in the **Editing** group, then select **Flash Fill**

The names of the months will now be extracted into column D...

- 4 Ensure that **D2** is still the active cell, type **36,455**, then press **Ctrl** + **Enter** to display only the integer part of the savings amount
- 5 Ensure that **D2** is still the active cell
- 6 Type **Wilson, R has saved 36,455.34 since 1989**, then press **Ctrl** + **Enter** to display a sentence that combines text, values and dates

	A	B	C	D	E	F	G	H
1	Member	Joined	Savings					
2	Roger Wilson	12-Jan-1989	36,455.34	Jan				
3	Mary Driscoll	23-Feb-2003	7,455.66	Feb				
4	Kate Foo	02-Feb-2010	522.12	Feb				
5	Julie Gregory	05-Feb-2012	699.67	Feb				
6	Peter Harrison	11-Feb-1998	32,566.89	Feb				
7	Harold Lowe	20-Feb-1997	42,133.78	Feb				
8	Oscar Renn	24-Feb-1994	27,899.00	Feb				
9	Melinda Wrill	27-Feb-1998	55,677.54	Feb				
10	Fred Jackson	04-Mar-2002	12,899.56	Mar				
11	Mary Lewis	13-Mar-2012	1,288.56	Mar				
12								

3

	A	B	C	D	E	F	G	H
1	Member	Joined	Savings					
2	Roger Wilson	12-Jan-1989	36,455.34	36,455				
3	Mary Driscoll	23-Feb-2003	7,455.66	7455				
4	Kate Foo	02-Feb-2010	522.12	522				
5	Julie Gregory	05-Feb-2012	699.67	699				
6	Peter Harrison	11-Feb-1998	32,566.89	32566				
7	Harold Lowe	20-Feb-1997	42,133.78	42133				
8	Oscar Renn	24-Feb-1994	27,899.00	27899				
9	Melinda Wrill	27-Feb-1998	55,677.54	55677				
10	Fred Jackson	04-Mar-2002	12,899.56	12899				
11	Mary Lewis	13-Mar-2012	1,288.56	1288				
12								

4

	A	B	C	D	E	F	G	H
1	Member	Joined	Savings					
2	Roger Wilson	12-Jan-1989	36,455.34	Wilson, R has saved 36,455.34 since 1989				
3	Mary Driscoll	23-Feb-2003	7,455.66	Driscoll, M has saved 7,455.66 since 2003				
4	Kate Foo	02-Feb-2010	522.12	Foo, K has saved 522.12 since 2010				
5	Julie Gregory	05-Feb-2012	699.67	Gregory, J has saved 699.67 since 2012				
6	Peter Harrison	11-Feb-1998	32,566.89	Harrison, P has saved 32,566.89 since 1998				
7	Harold Lowe	20-Feb-1997	42,133.78	Lowe, H has saved 42,133.78 since 1997				
8	Oscar Renn	24-Feb-1994	27,899.00	Renn, O has saved 27,899.00 since 1994				
9	Melinda Wrill	27-Feb-1998	55,677.54	Wrill, M has saved 55,677.54 since 1998				
10	Fred Jackson	04-Mar-2002	12,899.56	Jackson, F has saved 12,899.56 since 2002				
11	Mary Lewis	13-Mar-2012	1,288.56	Lewis, M has saved 1,288.56 since 2012				
12								

6

For Your Reference...

To **extract dates** and **numbers** with **Flash Fill**:

1. Type a sample of the date or value to extract in the cell to the right of the source data
2. Click on the **HOME** tab
3. Click on **Fill** in the **Editing** group and click on **Flash Fill**

Handy to Know...

- Like all things to do with spreadsheets you should carefully check results of operations such as copying and filling.

CHAPTER 2

INFocus

WORKSHEET TECHNIQUES

An Excel workbook is made up of one or more worksheets. The ability to have a number of worksheets in a workbook allows you to separate your data according to use and purpose. For example, different worksheets can be used for raw data, consolidated data, lists of assumptions, constants and charts.

To be able to create and manage a workbook effectively, you need to master a number of worksheet techniques.

In this session you will:

- ✓ learn how to insert and delete worksheets
- ✓ learn how to copy a worksheet
- ✓ learn how to rename a worksheet
- ✓ learn how to move a worksheet
- ✓ learn how to hide a worksheet
- ✓ learn how to unhide a worksheet
- ✓ learn how to copy a worksheet to another workbook
- ✓ learn how to move a worksheet to another workbook
- ✓ learn how to change worksheet tab colour
- ✓ learn how to group worksheets
- ✓ learn how to hide rows and columns
- ✓ learn how to restore rows and columns that have been hidden
- ✓ learn how to freeze and unfreeze rows and columns
- ✓ learn how to split windows.

INSERTING AND DELETING WORKSHEETS

Once you've decided on a structure for your workbook, you may find that there are some worksheets that can be **deleted**. Alternatively, you may find that you need additional blank

worksheets **inserted**. However, remember that deletion of worksheets is permanent and can't be undone using **Undo**, so always save your workbook before making these changes.

Try This Yourself:

Open File

Before starting this exercise you **MUST** open the file *E1324 Worksheet Techniques_1.xlsx...*

1 Examine the workbook – it currently contains one worksheet named **Sheet1**

2 Click on the **New Sheet** icon at the end of the worksheet tabs

A new worksheet named *Sheet2* will be inserted. You can also use the keyboard shortcut...

3 Press **Shift + F11** to insert another new worksheet

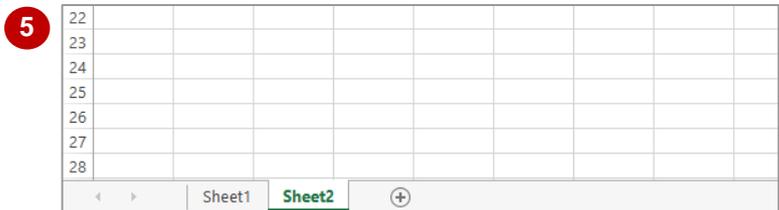
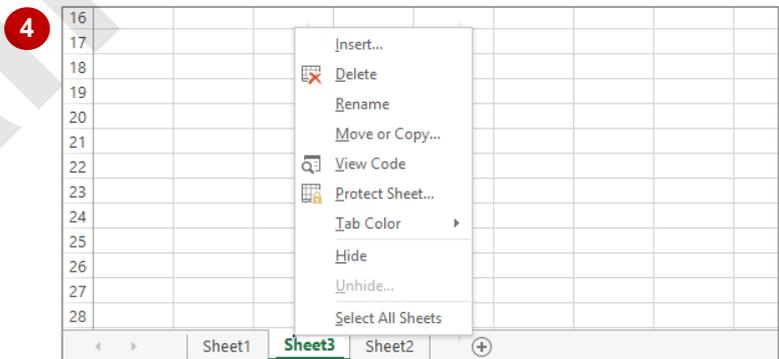
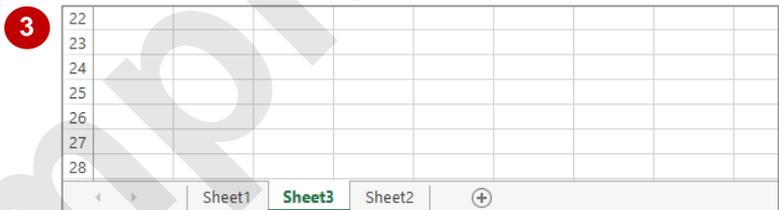
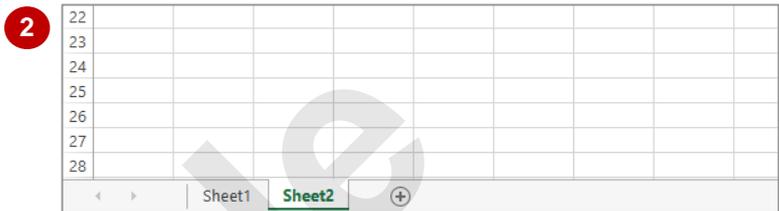
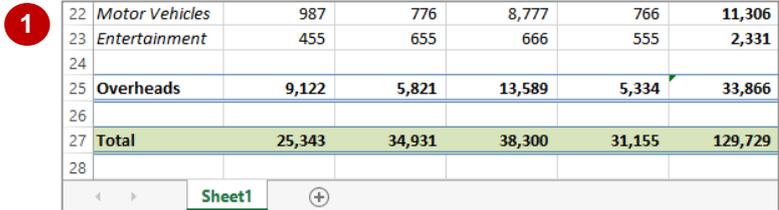
This sheet is named *Sheet3* and is inserted before the currently selected sheet. Now let's delete a sheet...

4 Right-click on the **Sheet3** worksheet tab to display the shortcut menu

5 Select **Delete** to remove the worksheet

As the worksheet contains no data, the sheet will be deleted immediately. If a worksheet contains data, Excel will ask you to confirm your actions...

6 Repeat steps 4 and 5 to delete **Sheet2**



For Your Reference...

To **insert** a **new worksheet** into a **workbook**:

- Click on the **New Sheet** icon to the right of the worksheet tabs

To **delete** a **worksheet** from a **workbook**:

- Right click on the worksheet tab, then select **Delete**

Handy to Know...

- To insert a worksheet between existing worksheets, right-click on the worksheet tab before which you want to insert a new sheet, then click on **Insert** to display the **Insert** dialog box. Select **Worksheet** and click on **[OK]**.

COPYING A WORKSHEET

Just as you can copy the contents of cells and ranges within a worksheet, you can **duplicate** worksheets within a workbook. This technique is ideal for replicating layouts. For example, if you

have a budget workbook that contains data for several departments, you can create a worksheet for the first department and then copy it to create identical worksheets for other departments.

Try This Yourself:

Same File

Continue using the previous file with this exercise, or open the file *E1324 Worksheet Techniques_1.xlsx...*

1 Right-click on **Sheet1** to display the worksheet shortcut menu

2 Select **Move or Copy** to display the **Move or Copy** dialog box

3 Click on **Create a copy** so it appears ticked, then click on **[OK]**

The new worksheet is named *Sheet1 (2)*. Let's create a "template" from this worksheet by deleting unwanted data...

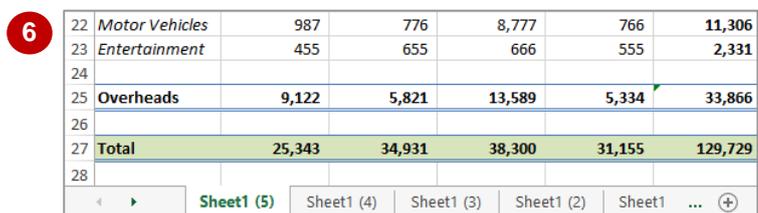
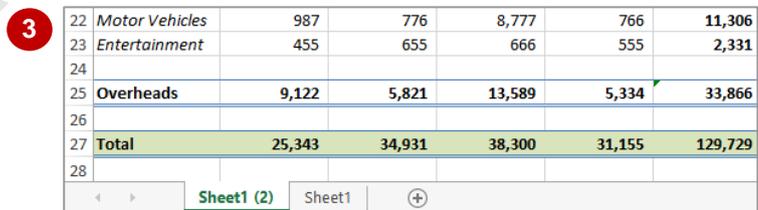
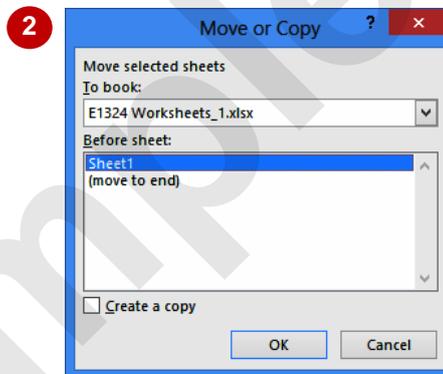
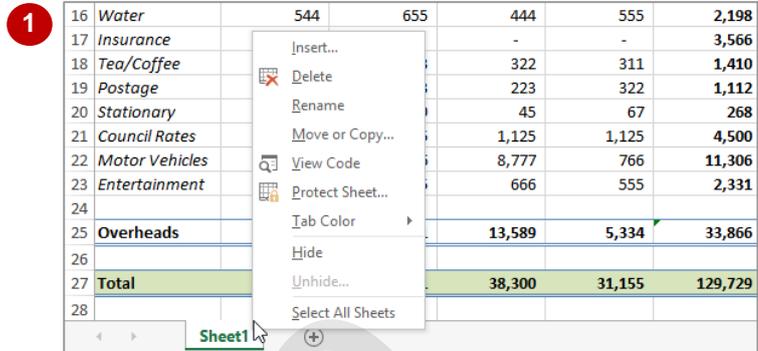
4 Select the range **B7:E9**, then press **[Del]** to clear it

5 Repeat step 4 to clear the ranges **B14:E23**, **G7:J9** and **G14:J23**, then press **[Ctrl] + [Home]** to return to cell **A1**

Now we can copy this "template" to create additional worksheets...

6 Repeat steps 1 to 3 three times to create three copies of the *template* worksheet – this time without data

The final worksheet should be named *Sheet1 (5)*



For Your Reference...

To **copy a worksheet**:

1. Right-click on the worksheet to copy, then select **Move or Copy**
2. Click on **Create a copy** so it appears ticked
3. Click on **[OK]**

Handy to Know...

- You can copy the current worksheet using the **HOME** tab by clicking on **Format** in the **Cells** group, then clicking on **Move or Copy Sheet**.
- The **Before sheet** options in the **Move or Copy** dialog box allow you to position the copied worksheet where you want.

RENAMING A WORKSHEET

By default, Excel names worksheets as **Sheet1**, **Sheet2**, **Sheet3**, etc. These names are fine if you are not planning to share the workbook, but changing these to something more relevant

makes it much easier to understand the purpose of a worksheet. You can also adjust the horizontal scroll bar to make room for longer, more meaningful worksheet names.

Try This Yourself:

Same File

Continue using the previous file with this exercise, or open the file *E1324 Worksheet Techniques_2.xlsx...*

- 1 Point to the vertical dots between the sheet names and the horizontal scroll bar, as shown

The pointer will change to a double-headed arrow...

- 2 Click and drag the bar across to the right, to the end of column **L**, then release the mouse button

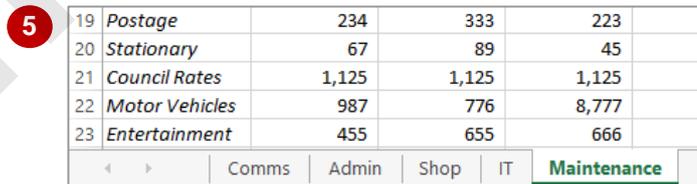
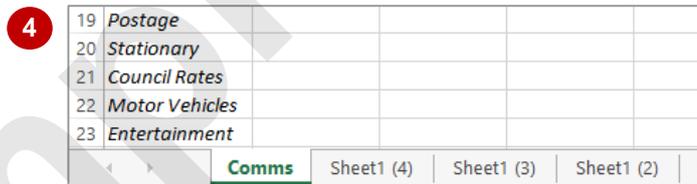
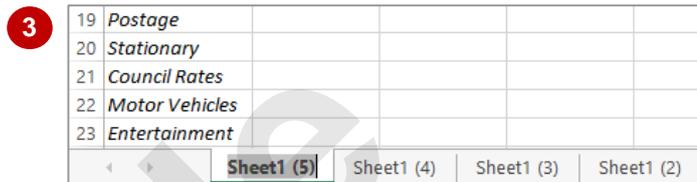
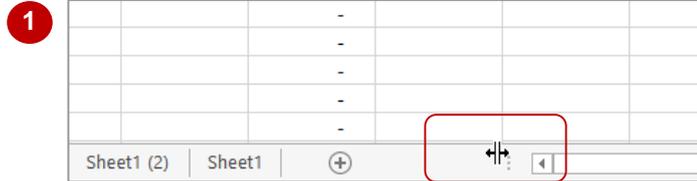
- 3 Double-click on **Sheet1 (5)** to select the worksheet tab name

This will also place it into edit mode...

- 4 Type **Comms**, then press

- 5 Repeat steps 3 and 4 to rename the other worksheets:

Sheet1 (4) **Admin**
Sheet1 (3) **Shop**
Sheet1 (2) **IT**
Sheet1 **Maintenance**



For Your Reference...

To **rename** a **worksheet**:

1. Double click on the current name on the worksheet tab
2. Type the new name and press

Handy to Know...

- You can rename a worksheet by right-clicking on the worksheet tab to display the shortcut menu and clicking on **Rename**.
- A worksheet tab name can contain up to 31 characters including spaces, but it is better to keep it short and succinct.