

Excel for Archivists: Two key techniques for working with text *(filtering and sorting)*



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(read these two pages before joining the meeting)

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Revision history

Version	Date	Author	Comments
0.1	25 June 2020	Gillian Sheldrick	Draft
0.2	13 Aug 2020	Gillian Sheldrick	Complete
1	30 October 2020	Gillian Sheldrick	Updated
2	21 December 2020	Gillian Sheldrick	Updated

The small print

Prerequisites

No prior learning activities are required.

You should read pages 3 and 4 of this course guide before joining the training

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About the trainer

Gillian Sheldrick has worked as an archivist for over thirty years, and has a particular interest in cataloguing, as well as being a long-standing Excel enthusiast. She was Senior Archivist at Hertfordshire Archives and Local Studies, where she was responsible for the 'behind the scenes' aspects of the service, including the cataloguing programme, and then Cataloguing Manager for English Heritage where she was responsible for the new archive cataloguing system (built in-house) and for making the catalogues available on line. She now works as a freelance cataloguer and carries out Excel training and consultancy. In 2019 she qualified as one of the first Fellows of the Archives and Records Association (FARA).

Her interest in using IT to assist with cataloguing large collections dates back to the 1980s when the Archives service was considering buying a computer (by no means an obvious investment then). She was asked to investigate whether any use might be found for it and began experimenting with using simple databases. Since then she has moved on to Excel, which is much more powerful than any of those early databases.

Gillian developed the Excel for Archivists workshops in 2014; to date she has delivered 51 workshops, including 25 for the University of Oxford IT Learning Centre, plus eight online training sessions..

About this training session

What you will learn

In this online training session, *Excel for Archivists: Two key techniques for working with text*, you will learn

- How to use filters effectively to help you understand and control your data
- How to use sorting effectively, including sorting using multiple criteria

Who will benefit

This training session will be of most use to those who wish to extend their Excel skills after using Excel at a fairly basic level, perhaps for data entry.

This training is aimed primarily at archivists and others working in archival institutions who use Excel to list and catalogue archives, though others who use Excel for working with text may also benefit.

The session can also serve as a 'taster' for the conventional Excel for Archives courses when they resume: these cover a variety of techniques and focus on hand-on practice.

What you need to know

Although the concepts relating to filtering and sorting are applicable to most spreadsheet software, the techniques demonstrated and practised in the session relate specifically to MS Excel (any version from Excel 2007 onwards) running on a Windows operating system.

No prior knowledge of sorting or filtering is required, but to benefit from the practical exercises, you should have basic experience of using Excel, including:

- opening and saving an Excel workbook
- selecting cells, columns, rows and ranges
- entering and saving data

The resources you need

1: CONNECTIVITY

The session will be delivered using MS Teams. If you need advice on using this tool, contact the IT Learning Centre (courses@it.ox.ac.uk). Although the pace will be fairly gentle, the practical activities in particular will require careful concentration, so you may want to take steps to avoid external disturbance while you are taking part.

The demonstrations will use Excel 2016 and you will also see the trainer and some PowerPoint slides onscreen. During this part of the training you do not need any specific resources.

2: COURSE NOTES

You will need to refer to these in detail during the practical activities, which you may find easier if you print them out. As well as covering the activities listed in the session plan above, the notes cover additional activities (1.3, 1.4, 2.3, 2.4): these are intended for use after the training session has finished, though you may find you have time to begin them during the training:

3: EXCEL WORKBOOK

For the activities you need the Excel workbook entitled *Excel for Archivists Filtering and Sorting.xlsx* open (or ready to be opened) in Excel. We recommend taking a copy of the workbook sent to you, so that you can use a fresh version for further study following the session. You do not need to supply your own Excel workbooks or data (though for parts of the additional activities there is the option to use your own data if you wish).

4: COMPUTER RUNNING EXCEL

Any version of MS Excel (2007 or later) running on Windows operating system is suitable. If you use different software or earlier versions of Excel you will find it very difficult to carry out the practical activities effectively. You will be doing very little typing, but you may find it convenient to use a mouse rather than a touchpad during the practical activities

Session plan

The trainer will demonstrate the techniques being studied, including key features and common errors. You will then be able to practise the techniques yourself in a series of practical activities, the instructions for which are included in these Course Notes. The trainer will stay online while you carry out these activities in order to offer assistance if required. Additional activities are also available for further practice on your own after the training session has finished.

The session plan is as follows:

Introduction and Welcome

TOPIC 1: USING FILTERS

Presentation: Using Filters (1)

Filters: Activity 1.1 [10 minutes]

Presentation: Using Filters (2)

Filters: Activity 1.2 [5 minutes]

TOPIC 2: SORTING DATA

Presentation: Sorting Data (1)

Sorting: Activity 2.1 [5 minutes]

Presentation: Sorting Data (2)

Sorting: Activity 2.2 [10 minutes]

Round up and questions

About the sample data

All the data required for the practical activities is in the workbook *Excel for Archivists Filtering and Sorting.xlsx*. The instructions for each activity explain which worksheet to use. There are some differences between the data for each activity, but it all consists of edited extracts from a catalogue of several Cooperative Societies in the country of Gloucestershire. See the Introduction page of the workbook for more details and acknowledgements.

TOPIC 1: USING FILTERS

ACTIVITY 1.1

ABOUT THIS ACTIVITY

In this activity you will practise the following techniques:

- Activating and de-activating filtering
- Selecting and removing filter criteria

You will use the Worksheet entitled 'Activity 1_1' in the Excel workbook *Excel for Archivists Filtering and Sorting.xlsx*

Work through the step by step instructions below in order.

STEP BY STEP INSTRUCTIONS FOR ACTIVITY 1.1

Activating Filters

- 1 In the Excel workbook *Excel for Archivists Filtering and Sorting.xlsx* open the worksheet entitled Activity A [the header row is shaded green]
- 2 Select column C (Description Level)
- 3 From the 'Editing' group of the home ribbon choose 'Sort and Filter'
- 4 Chose 'Filter'
Comment: Help text appears when you hover over the word Filter
- 5 Observe the downward arrow at top of column C which indicates that filtering is activated for this column

Selecting Filter Criteria

- 6 Click the arrow at the top of column C and view the list of values in this column. To select filter criteria, check/uncheck box(es) to select the value or values you want to use, or check/uncheck the 'select all' box
Comment: the list of values displayed is based on all the values used in the column, sorted into order
- 7 Using the arrow at the top of column C, check the box for 'series'. Then click 'OK'
- 8 The filter is now applied: only rows containing the level of description 'series' are displayed. The arrow at the top of the column changes appearance to show that filter criteria have been applied.

9 Observe that the row numbers are no longer consecutive: only rows containing the selected value(s) are displayed; unwanted rows are hidden

10 In recent versions of Excel, a search box appears above the list of values. Typing in this box narrows the values. For example, typing 'e' reduces the list in column C to two values only (item and series are the only values in column C to contain the letter 'e')

Comment: you do not need to use the search box in the rest of this activity or in other activities relating to filtering. However, if it is available in the version of Excel you are using, you may use it if you wish when selecting filter criteria.

Removing or changing Filter Criteria

11 Click on the filter arrow to choose one or more additional filter criteria. Don't forget to click OK

12 Click on the filter arrow and choose 'select all' (and OK): the arrow changes its appearance back to a simple arrow. All rows are now displayed

De-activating Filters

13 From the 'Editing' group of the Home ribbon choose 'Sort and Filter'. Note that the icon next to the word 'Filter' is highlighted to show that filters have been activated.

14 Click on the icon or on the word 'Filter'. The icon is no longer highlighted.

15 Look at column C: The arrow on the column no longer displays, indicating that filtering is no longer activated

16 Ensure that filters have been deactivated before continuing. It is not possible to activate a filter on another column until the existing one has been removed.

Activating filters on multiple columns

17 Select columns B, C and D (Box, Level and Reference). Ensure you select the three columns as a single block and not individually (click on the column letter B and drag across to column D)

18 From the 'Editing' group of the ribbon choose 'Sort and Filter' and choose 'Filter'

19 The filter arrow appears at the top of each of columns B, C, and D, showing that filtering has been activated for these columns

20 Click the arrow in column B or D and view the list of values in this column. Note that the list on the 'Catalogue ref' column is very long, as each reference is unique.

21 Deactivate the filters (Home ribbon > 'Editing' group > 'Sort and Filter' > Filter)

Activating filters on multiple columns: what to avoid

22 Select columns C, F and H (hold down control while selecting each column in turn)

23 From the 'Editing' group of the ribbon choose 'Sort and Filter' followed by 'Filter'

24 A message appears 'This can't be done on a multiple range selection. Select a single range and try again' (the working in the message may vary depending on your version of Excel). Click OK to close the message.

Comment: This demonstrates that it is not possible to enable filters when columns have been selected individually. This applies even if the columns are adjacent.

25 Ensure that filtering is de-activated (no arrows appear at the tops of columns and the icon next to the word 'Filter' in Home ribbon > 'Editing' group > 'Sort and Filter' is not highlighted)

END OF ACTIVITY 1.1

What to do next:

- If you have a short time available, repeat activity 1.1, or parts of it, to consolidate your understanding
 - If you have more time, try some of the additional exercises for this topic (Activity 1.4, page 13)
-

TOPIC 1: USING FILTERS

ACTIVITY 1.2

ABOUT THIS ACTIVITY

In this activity you will practise the following techniques:

- Activating filters on all columns
- Selecting Filter Criteria from two or more columns

You will use the Worksheet entitled 'Activity 1_2' in the Excel workbook *Excel for Archivists Filtering and Sorting.xlsx*. This is another copy of the data used in Activity 1.1

Work through the step by step instructions below in order.

STEP BY STEP INSTRUCTIONS FOR ACTIVITY 1.2

Activating filters on all columns

- 1 In the Excel workbook *Excel for Archivists Filtering and Sorting.xlsx* open the worksheet entitled Activity 1_2
- 2 Ensure that filtering is de-activated (no arrows appear at the tops of columns and the icon next to the word 'Filter' in Home ribbon > 'Editing' group > 'Sort and Filter' is not highlighted)
- 3 Click on any cell in row 1.
Activate filters (Home ribbon > 'Editing' group > 'Sort and Filter' > Filter).
- 4 Downward arrows appear at top of all columns, indicating that filtering is activated
Comment: Excel automatically enables the filters for rows and columns identified as containing data, treating row 1 as a header row, which is not included in the list of filter criteria
- 5 It is also possible to select all of columns A to L and then activate filtering. This is often more reliable than relying on Excel to identify which rows and columns contain data. Be particularly wary of relying on Excel if your data includes blank rows or columns.
- 6 Ensure that filtering remains activated on all columns before continuing

Selecting Filter Criteria from two or more columns

- 7 Click on the filter arrow in column H (year from).
Uncheck 'select all', then choose '1929' and click OK.
- 8 Click on the filter arrow in column B (box). Select box 44

Comment: the list of values for column B list offers only boxes containing items dated 1929, not the full list of box numbers. By previously selecting '1929' for column H, the options for column B (and other columns as appropriate) have been narrowed

9 To deselect or change the filter selection, click on the filter icon in column B or H, and choose 'select all'.

10 To apply 'select all' to ALL columns, choose 'Sort and Filter' from the 'Editing' group of the Home ribbon, and click 'Clear'

Comment: using 'clear' to apply 'select all' to all columns may be safer if you cannot remember how many columns you have filtered on).

11 Deactivate all filters (Home ribbon > 'Editing' group > 'Sort and Filter' > Filter)

END OF ACTIVITY 1.2

What to do next:

- If you have a short time available, repeat activity 1.2, or parts of it, to consolidate your understanding.
 - If you have time, and wish to extend your knowledge of filtering, have a look at activity 1.3 (page 10)
 - If you have more time, try some of the additional exercises for this topic (Activity 1.4, page 13)
-

TOPIC 1: USING FILTERS

ACTIVITY 1.3

ABOUT THIS ACTIVITY

- In this activity you will deepen your understanding of filtering and explore some other ways of selecting filter criteria.
- This activity is intended for further study after the learning session has finished, but if you have time and are confident with the techniques studied in activities 1.1 and 1.2, you may have time to make a start during the session.

This activity contains explanatory notes and two optional tasks

If you only want an overview of the concepts covered you can omit the practical tasks

You will use the Worksheet entitled 'Activity 1_3, 1_4' in the Excel workbook *Excel for Archivists Filtering and Sorting.xlsx* (this is another copy of the data used in the previous activities)

ACTIVITY 1.3: NOTES AND INSTRUCTIONS

Filtering on cell colour

- 1 In addition to using values from the list as filter criteria, the colour of the cell can be used.
- 2 This may be useful if, for example, you have used colour to indicate rows where you wish to check the data.

Filtering on cell colour (optional task)

- 3 In the Excel workbook *Excel for Archivists Filtering and Sorting.xlsx* open the worksheet entitled Activities 1_3, 1_4. Activate filters on any column or on all columns (Home ribbon > 'Editing' group > 'Sort and Filter' > Filter).
- 4 Click on a filter arrow
- 5 Hover on 'Filter by colour' and click on one of the two colours which appears. The filter is applied; only rows with the fill colour selected are displayed.
- 6 Remove filter criteria before continuing (choose 'select all', or use Home Ribbon > Editing group > Sort and Filter > Clear)

Text and Number Filters

- 7 Using text and number filters it is possible to specify filter criteria much more precisely than selecting values from the list of values.

- 8 With text filters, operators such as 'equals', 'begins with' or 'contains' are available.
- 9 With number filters, operators available include 'equals' 'less than', and 'between'.
- 10 In both cases, once the operator has been selected, a box appears in which a search terms can be entered (for example Number filter > 'Equals' > '350'; or 'text filter > 'begins with' > 'A')
- 11 Excel normally offers 'text filters' if the column being filtered on contains mainly text, and 'number filters' if it contains mainly numbers. This aspect of filtering (ie how to decide whether text or number filters will be offered) is not covered further in this training session.
- 12 Date filters (including options such as 'before' and 'between') may sometimes be offered if the column contains appropriate data. Date filters operate similarly to text and number filters, but are not available in the data used in this training session and are not covered further.

Text and Number Filters (optional task)

- 13 Open the worksheet entitled 'Filtering'. If filters are not already activated, activate filters on column E (Title) or on all columns (Home ribbon > 'Editing' group > 'Sort and Filter' > Filter).
- 14 Click on the filter arrow on column E (Title)
- 15 Hover on 'Text filters' and click on 'contains'. The custom autofilter dialogue box opens
- 16 In the dialogue box type the word 'portrait' in the box to the right of the word 'contains', then click OK
- 17 The filter is applied; only rows where the title contains the word 'portrait' are displayed.
- 18 Remove filter criteria before continuing (choose 'select all', or use Home Ribbon > Editing group > Sort and Filter > Clear)
- 19 Ensure filters are activated, and click on the filter arrow on column K (closed until)
- 20 Hover on 'Number filters' and click on 'less than'. The custom autofilter dialogue box opens
- 21 In the dialogue box, type '2020' in the box to the right of the phrase 'is less than'
- 22 Click OK: The filter is applied; only rows where 'closed until' is less than 2020 [ie the closure period has expired] are displayed.
- 23 Remove filter criteria, or deactivate filtering, before continuing

Uses for Filtering

- 24 Filtering can of course used for data discovery. For example, searching a catalogue in Excel to display all items whose description contains the word 'portrait' and which date from after 1850 and before 1870.

25 Filtering can also be a useful tool for data improvement. For example, when proof reading, it can be easier to spot errors by reading the list of values for a particular column than when reading through all the data in the column.

26 Filters can also be used to identify blank cells or rows (select the term 'blanks' at the end of the list of values). This can be useful if data has been omitted, or when the objective is to identify and delete blank rows.

27 Filtering on the name of the level of description can be a simple way of creating a summary catalogue; for example, filtering so that only series level records display, and then copying the filtered data and pasting it into a new location or a word document. Note **Warning three** below concerning copying filtered data.

Three warnings

28 **Warning one:** if your data contains a lot of blank rows, Excel may sometimes identify a blank row as the end of the data, resulting in some of the data being omitted from filtering. Avoid blank rows where possible.

29 **Warning two:** If additional rows or columns of data are added while filtering is active, the new data may not be included in the filtered range. De-activate and then reactivate filtering to ensure that all data is included.

30 **Warning three:** When copying filtered data in order to paste it elsewhere, do NOT select and copy the whole worksheet using the 'select all button'. Because of the way Excel copies and stores the filtered data this will create a massive Excel file. For example, copying a whole filtered sheet in a modest 175kb Excel workbook and pasting it back into the same workbook can result in a massive 30 Mb file. Instead, copy just the required rows, or a block of cells.

END OF ACTIVITY 1.3

What to do next:

- You may repeat activity 1.3 or parts of it, to consolidate your understanding
 - If you would like more practice on the techniques covered, try some of the additional exercises for this topic (Activity 1.4, page 13)
-

TOPIC 1: USING FILTERS

ACTIVITY 1.4 (additional practice)

ABOUT THIS ACTIVITY

This Activity offers a series of exercises for further practice in the techniques covered in this topic

This activity is intended for further study after the learning session has finished, but if you have time and are confident with the techniques studied in activities 1.1 and 1.2, you may have time to make a start during the session.

Exercises 1- 4 use the skills practised in Activity 1.1; Exercises 5 - 8 also use the skills from activity 1.2; Exercise 9 also uses the skills from activity 1.3

You will use the Worksheet entitled 'Activity 1_3, 1_4' in the Excel workbook *Excel for Archivists Filtering and Sorting.xlsx* (this is another copy of the data used in the previous activities). For exercise 8 you can use your own data

Exercise 1

Use filters to view rows where the Description Level is 'Fonds'.

Exercise 2

Use filters to view rows where 'Closed Until' is equal to 2022 or 2023

Exercise 3

I have made five typing errors in the 'Month from' column (G). Use filters to find and display the rows with the errors. [You do not need to correct the errors]

Exercise 4

I have made four typing errors in the 'Year to' column (J). Use filters to find and display the rows with the errors. [You do not need to correct the errors]

Exercise 5

(a) How many item level records have a start date of either 1914 or 1915? (hint: use filters on columns C and H)

(b) How many of these have an end date (column J) later than 1940? (hint: activate filters on all columns or on columns C to H)

Exercise 6

I have omitted the extent for some item level records. By filtering on columns F (extent) and (C) level, find out which box (or boxes) they are in. (hint: you will need to activate filters on all columns or on columns C to F)

Exercise 7

Explore the data using filtering, applying your own choice criteria to single or multiple columns

Exercise 8

Use your own data to explore the techniques covered in the 'filtering' topic (do this in your own time, not while the training session is running).

IMPORTANT NOTE: carry out the exercise using a COPY of your data, not on an original worksheet (in case you make a mistake which corrupts your data)

Exercise 9

Repeat Exercise 5 above, but using 'Text and number filters' and the custom autofilter dialogue box

END OF ACTIVITY 1.4

This is the final activity associated with Topic 1: Using Filters

TOPIC 2: SORTING DATA

ACTIVITY 2.1

ABOUT THIS ACTIVITY

In this activity you will practise the following techniques:

- Carrying out a simple sort using Excel's default criteria
- Sorting on selected rows using Custom Sort

You will use the Worksheet entitled 'Activity 2_1' in the Excel workbook *Excel for Archivists Filtering and Sorting.xlsx*

Work through the step by step instructions below in order.

STEP BY STEP INSTRUCTIONS FOR ACTIVITY 2.1

Simple sort

- 1 In the Excel workbook *Excel for Archivists Filtering and Sorting.xlsx* open the worksheet entitled Activity 2_1 (the header row is shaded pink).
- 2 Select rows 3 to 9 (ensure you select the whole row: click on the number 3 to the left of the worksheet, and drag down to row 9).
- 3 From the 'Editing' group of the Home Ribbon choose 'Sort and Filter'. Then select 'Sort smallest to largest'
- 4 Observe that the box numbers in column A, rows 3 to 9 appear in numerical order of Box number, while the other rows have not been affected.
- 5 Select rows 11 to 17
From the 'Editing' group of the Home Ribbon choose 'Sort and Filter'
- 6 Select 'Sort largest to smallest'
- 7 Observe that the box numbers in column A, rows 11 to 17 appear in reverse numerical order, while the other rows have not been affected.
- 8 *Comment: this demonstrates that by default, Excel sorts according to the data in the left hand column (column A)*

Custom sort

- 9 Select the whole worksheet
(to do this, click the box with the triangle symbol at the top left of the worksheet)

- 10 From the 'Editing' group of the Home Ribbon choose 'Sort and Filter'. Then choose 'Custom Sort'. Observe that a dialogue box appears
- 11 In the dialogue box, ensure the box 'My data has headers' is NOT ticked
- 12 Still in the dialogue box, open the pull down list in 'Sort by'. Observe that this contains a list of column letters (column A etc) which contain data.
- 13 Still in the dialogue box, tick the box 'My data has headers'. Then re-open the pull down list in 'Sort by'. Observe that this now contains list of the column headings ('Box No', etc)
- 14 Still in the dialogue box and in the 'Sort by' pull down list, click on each term in turn. For each term (ie each worksheet column heading), open the pull down list in the 'Order' box
- When the worksheet column contains numbers (eg Box No), the 'Order' offered is normally 'smallest to largest' or 'largest to smallest'
 - When the worksheet column contains words (eg Place) the 'Order' offered is normally 'A to Z' or 'Z to A'
- Comment: Normally, this change of words has no practical effect on the sort order*
- 14 In the 'Sort by' pull down list in the dialogue box, choose 'Place' . Ensure that 'Values' is selected in the 'Sort on' box in the dialogue box
- 15 In the 'Order' pull down list in the dialogue box select A to Z. Then click OK at the bottom of the dialogue box. Observe that the list has been sorted in alphabetical order of 'Place' [ie the town to which the records relate]
- 16 The dialogue box can be resized, and it can be moved to a different position (click in the centre of the top border of the dialogue box, and drag it while holding down the left mouse button)

END OF ACTIVITY 2.1

What to do next:

- If you have a short time available, repeat activity 2.1, or parts of it, to consolidate your understanding
 - If you have more time, experiment with using the 'Sort' dialogue box to sort the data using different criteria.
-

TOPIC 2: SORTING DATA

ACTIVITY 2.2

ABOUT THIS ACTIVITY

In this activity you will practise the following techniques:

- Sorting on multiple criteria, using 'Custom Sort'
- Changing the sequence in which sorting is carried out

You will use the Worksheet entitled 'Activity 2.2' in the Excel workbook Excel for Archivists Filtering and Sorting.xlsx (this is another copy of the data used in Activity 2.1)

Work through the step by step instructions below in order.

There are also additional exercises associated with this activity (Activity 2.4, page 21) which are mainly intended for additional practice after the training session has finished.

STEP BY STEP INSTRUCTIONS FOR ACTIVITY 2.2

Sorting on multiple criteria

- 1 In the Excel workbook Excel for Archivists Filtering and Sorting.xlsx open the worksheet entitled Activity 2.2
- 2 Select the whole worksheet
From the 'Editing' group of the home ribbon choose 'Sort and Filter'. Then choose 'Custom Sort'.
Observe that the 'Sort' dialogue box opens
- 3 In the dialogue box, ensure the box 'My data has headers' is ticked
- 4 In the 'Sort by' pull down list in the dialogue box, choose 'place'. Ensure that 'Values' is selected in the 'Sort on' box in the dialogue box. In the 'Order' pull down list in the dialogue box select 'Z to A'
- 5 At the top of the dialogue box (just below the word 'sort') click 'Add Level'. Observe that a new set of boxes appears, prefixed with 'then by'
- 6 In the new set of boxes, choose 'Classification' column and 'A to Z' order
- 7 In the dialogue box, click 'OK'.
- 8 Observe that the list is sorted by 'Place' in reverse alphabetical order, with Stroud first. Within each place, the listed is sorted in alphabetical order of Classification, starting with 'Finance'

Adjusting the sort order

- 9 Select the whole worksheet
- 10 From the 'Editing' group of the Home ribbon choose 'Sort and Filter'. Then choose 'Custom Sort' to open the 'sort' dialogue box.
- 11 In the dialogue box, using 'Add Level' as appropriate, set up a four level sort, as follows:
Sort by Place
Then by Box No
Then by Year From
Then by Title
- 12 In the dialogue box, click on the words 'then by' to select the second set of boxes ('Then by Box No'). At the top centre of the Sort dialogue box, click the up arrow
- 13 Observe that 'Sort by Box no' is now at the top of the sorting list
- 14 In the dialogue box, click on the words 'sort by' to select the top set of boxes ('Sort by Box No'). At the top centre of the dialogue box, click the down arrow three times
- 15 Observe that 'Sort by Box No' moves down to the bottom of the sorting list
- 16 In the dialogue box, click on the words 'then by' to select the row 'Then by Title'. At the top of the dialogue box click 'delete level'
- 17 Observe that the row 'then by Title' disappears
- 18 If you wish, you may click 'OK' to close the dialogue and implement the sort order you have specified (alternatively, click 'cancel' to close the dialogue box)

END OF ACTIVITY 2.2

What to do next:

- If you have a short time available, repeat activity 2.2, or parts of it, to consolidate your understanding
 - If you have time, and wish to extend your knowledge of sorting, have a look at activity 2.3 (page 19)
 - If you have more time, try some of the Additional Exercises [Activity 2.4, page 21]
-

TOPIC 2: SORTING DATA

ACTIVITY 2.3

ABOUT THIS ACTIVITY

- In this activity you will deepen your understanding of sorting, including considering ways to use the technique effectively
- This activity is intended for further study after the learning session has finished, but if you have time and are confident with the techniques studied in activities 2.1 and 2.2, you may have time to make a start during the session.
- This activity contains explanatory notes. If you wish, and have time, you may experiment with them using the worksheet Activity 2_3, 2_4 (this is another copy of the data used in Activity 2.1)

More about sorting

1 Performing a sort changes the order of rows permanently (once the workbook is saved and closed). This is in contrast to filtering (topic one) where the rows are simply hidden or displayed depending on the criteria selected.

2 You can sort using any number of columns, in any order

3 As well as sorting on the whole worksheet or whole rows, you can sort on any selection of cells. A simple sort (see activity 2.1) will sort on the left-most column of the selection, and 'my data has headers' will refer to the top row of the selection. However, see the 'warning' below.

4 **Warning:** if the selection you make contains only part of rows (for example, cells C6 to H9) Excel will ONLY sort the data selected. In this case, cells A6 to B9 remain unsorted and the data they contain is associated with the 'wrong' data in cells C6 to H9. Generally, this is not what you want.

5 When working with genuine data, don't forget to take a back up copy before sorting, in case the results are not what you expect, or you corrupt the data. It can also be helpful to number the rows before you start, so you can sort back into the starting order if necessary (for an example, see column H in the worksheet 'Activity 2_3, 2_4', and see further advice below on how to number rows)

6 Excel sorts in strict alphabetical or numerical order. Sometimes adjusting the data before sorting can give more logical results. For example, you may wish to use 'sort' to generate a classified catalogue: using the data in the 'Classification' column in the present example results in rows classified as 'Finance' appearing at the top of the sort, as this term is first alphabetically, but it may not be logically first. However, using different classification terms, such as 1Governance, 2Minutes, 3Finance, 4Membership (or simply A B, C, D) may give a better result.

7 If a column contains a mixture of numbers and text, all the numbers are sorted first, followed by all the text.

Additional Advice: One way to add row numbers before sorting

(This topic is not in scope for this training session, though it is covered in more detail in the full Excel for Archivists training course).

- Create a column called (for example) starting row number, and type the digit 2 in row 2 in this column (or the appropriate number for the first row)
- Select this cell and observe the small square at the bottom right of the cell: this is the autofill handle
- Hover over the autofill handle until the pointer changes to a cross, then drag down until all the cells you want to complete have been filled
- A small menu appears to the bottom right of the last cell: use this to select 'fill series', which fills the cells with a sequence of numbers.

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END OF ACTIVITY 2.3

This activity completes the learning associated with Topic 2: Sorting Data

What to do next:

- To consolidate your understanding, experiment with some or all of the concepts addressed in Activity 1.3. You can use the data in the worksheet Activity 2_3, 2_4
 - If you have more time, try some of the additional exercises [Activity 2.4, page 21]
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TOPIC 2: SORTING DATA

ACTIVITY 2.4 (additional practice)

ABOUT THIS ACTIVITY

This Activity offers a series of exercises for further practice in the techniques covered in this topic

This activity is intended for further study after the learning session has finished, but if you have time and are confident with the techniques studied in activities 2.1 and 2.2, you may have time to make a start during the session.

Exercises 1- 4 use the skills practised in Activities 2.1 and 2.2; Exercises 4 and 5 also use the skills from activity 2.3

For these exercises, you may use the worksheet 'Activity 2_3, 2_4) in the Excel workbook *Excel for Archivists Filtering and Sorting.xlsx* (except for Exercise 5 for which you can use your own data).

Exercise 1

Sort the whole worksheet into order of Classification, and within each Classification into Place order

Exercise 2

Sort the whole worksheet into the following order:

- box number order
- within each box, in date order (year from)

Exercise 3

Sort rows 280 to 294 into the following order:

- box number order
- within that by place
- within that by classification

Then sort the same selection (rows 280 to 294) into the reverse order by moving the selection within the custom sort dialogue box:

- Classification order
- within that by place
- within that by box number

Exercise 4

Experiment with the effect of sorting on a selection of cells smaller than a whole row (use 'undo' if you wish to reverse any changes you make)

Exercise 5

Use your own data to explore the techniques covered in the 'sorting' topic (do this in your own time, not while the training session is running).

IMPORTANT NOTE: carry out the exercise using a COPY of your data, not on an original worksheet (in case you make a mistake which corrupts your data)

END OF ACTIVITY 2.4

This is the final activity associated with Topic 2: Sorting Data

Further information and contact details

For more information about courses run by the IT Learning Centre, contact courses@it.ox.ac.uk

You are also welcome to contact Gillian Sheldrick (SheldrickG@Gmail.com) for any of the following:

- support with the activities covered in this session
- advice on Excel generally
- To be added to the mailing list to receive Gillian's Excel for Archivists newsletter three or four times a year; this includes tips for using Excel in an archives context and news on forthcoming training.