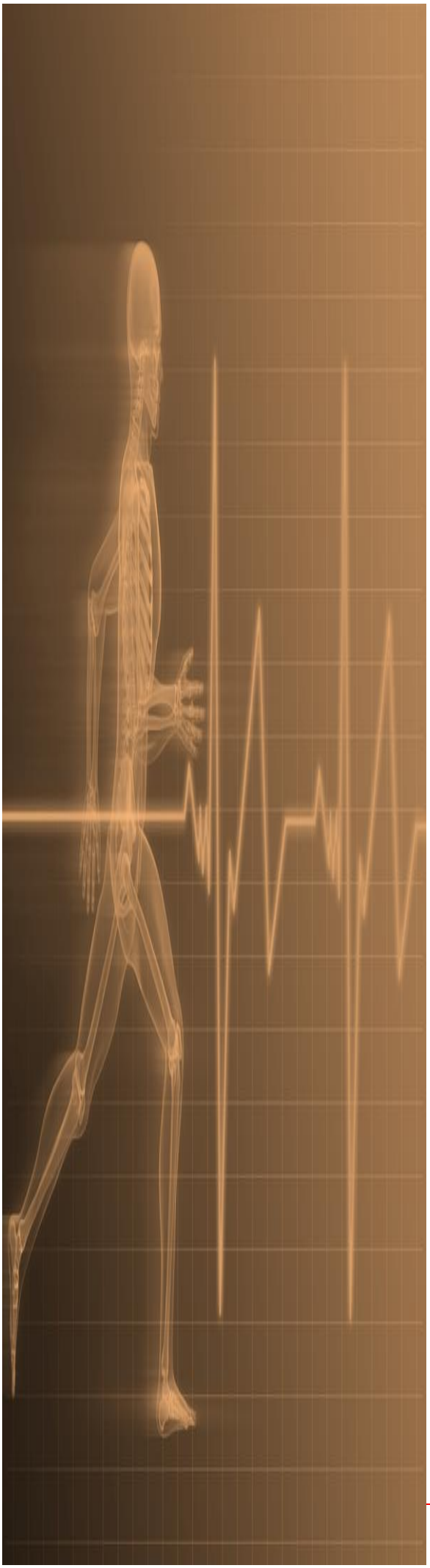


St George's University of London

Excel Sorting, Filtering & Advanced Filtering of Data

IT Training
St. George's, University of London

Contents

If you have a St. George's username and password you can access all the files that goes with this manual.

Files can be found in a folder on the **N** drive in the **IT Training folder** named:
Excel - Sorting, Filtering & Advanced Filtering of Data

N:\IT Training\ **Excel - Sorting, Filtering & Advanced Filtering of Data**

UNDERSTANDING LISTS

Microsoft Excel is quite often used to create ***lists*** – such as lists of customer contacts, lists of items in an inventory, lists of employees, lists of upcoming events, and the like. To cater for these kinds of lists, Microsoft Excel allows you to perform ***sort*** operations so that all of the data in the list can be rearranged in a more desirable and logical fashion.

Lists – The Key to Understanding Sorting

To understand how Microsoft Excel performs a sorting operation you first need to grasp the concept of a ***list*** in Microsoft Excel.

When you make a cell active Excel analyses all of the adjacent cells – up, down, left and right. It considers all of the cells around the active cell to be part of a list range as long as the cells contain data.

So, in Excel, a list is automatically defined as the area around the active cell that contains data. The boundary of the list range is defined when an empty cell is encountered. In the example below, the active cell is ***C4***. Excel therefore deems the list to be the one bounded by empty cells – in other words, the list is made up of all of the non-empty cells.

	A	B	C	D	E	F	G	H	I
1	**Alpheius Leader Listing**								
2	**Staff Listing**								
3									
4	**No**	**First Name**	**Last Name**	**Position**	**Office**	**E-Mail**	**Telephone**		**Age**
5	NZ0000001	Peter	Reynolds	Enterprise Leader	Auckland	preynolds@alpheiusge.com.nz	64 9 344 0219		114.1
6	NZ0000002	Mary	Campbell	Effective People Leader	Auckland	mcampbell@alpheiusge.com.nz	64 9 344 0202		114.1
7	NZ0000003	Helen	Kai	Monies Leader	Auckland	hkai@alpheiusge.com.nz	64 9 344 0203		114.1
8	NZ0000004	Norris	Maunga	Forward Thinking Leader	Auckland	nmaunga@alpheiusge.com.nz	64 9 344 0204		114.1
9	NZ0000005	Vivian	Smith	Enterprise Opportunities Leader	Auckland	vsmith@alpheiusge.com.nz	64 9 344 0205		114.1
10	NZ0000006	Grace	Goodson	Communications Service Leader	Auckland	ggoodson@alpheiusge.com.nz	64 9 344 0206		114.1
11	NZ0000007	Kate	Rualowy	Insurance Service Leader	Auckland	krualowy@alpheiusge.com.nz	64 9 344 0207		114.1
12	NZ0000008	Brian	Houson	Banking and Finance Service Leader	Auckland	bhouson@alpheiusge.com.nz	64 9 344 0208		114.1
13	NZ0000009	Tara	Kinelly	Legal Service Leader	Auckland	tkinelly@alpheiusge.com.nz	64 9 344 0209		114.1
14	NZ0000010	Nora	Mita	Building Services Service Leader	Auckland	nmita@alpheiusge.com.nz	64 9 344 0210		114.1
15	NZ0000011	Kris	Tamahori	Careers and Education Service Leader	Auckland	ktamahori@alpheiusge.com.nz	64 9 344 0211		114.1
16	NZ0000012	Kelly	Jones	Health Services Service Leader	Auckland	kjones@alpheiusge.com.nz	64 9 344 0212		114.1
17	NZ0000013	Arthur	Maohori	Communications Product Leader	Auckland	amaohori@alpheiusge.com.nz	64 9 344 0213		114.1
18	NZ0000014	Marama	Takarami	Electronics Product Leader	Auckland	mtakarami@alpheiusge.com.nz	64 9 344 0214		114.1
19	NZ0000015	Samuel	Jenkins	Computer Products Product Leader	Auckland	sjenkins@alpheiusge.com.nz	64 9 344 0215		114.1
20	NZ0000016	Hine	Boramori	Vehicles Product Leader	Auckland	hboramori@alpheiusge.com.nz	64 9 344 0216		114.1
21	NZ0000017	Bob	Smith	Life Style Product Leader	Auckland	bsmith@alpheiusge.com.nz	64 9 344 0217		114.1
22	NZ0000018	Whetu	Ramabundi	Tools Product Leader	Auckland	wramabundi@alpheiusge.com.n	64 9 344 0218		114.1
23	IR0000001	Paula	Cleary	Enterprise Leader	Dublin	pcleary@alpheiusge.ie	353 1 873 6558		114.1
24									
25									
26									
27									
28									

The list extends to the left as far as column ***A***, and to the right as far as column ***G***. It doesn't go up any more rows because ***C3*** is an empty cell. It goes down as far as row ***23***, the last non-empty cell in the column. So the list range is automatically defined as ***A4*** to ***G23***.

You can make any cell in this list the active cell and the list range will be the same. You don't have to select or highlight the range.

Sorting a List

Once a list is available to Excel, the data in it can be ***sorted***. The data is usually sorted down a ***column***, known in database jargon as a ***field***. Data is sorted alpha-numerically, meaning that alphabetical characters are sorted first, and then numbers. If there are only alphabetical characters in it then the list will be sorted alphabetically from left to right. If there are only numbers the list will be sorted numerically. If there is mixed data the list will be sorted by alphabetical characters and then by numbers.

Lists can be sorted in ***ascending*** order (from lowest to highest) and in ***descending*** order (from highest to lowest).

PERFORMING AN ALPHABETICAL SORT

The most common use for sorting is to rearrange the data in a ***list*** in a specific order. A list is simply a grouping of data without any empty columns or rows. In a ***list***, a ***single column*** can be sorted by placing the cell pointer anywhere in the column that you wish to sort and choosing the ***Sort & Filter*** command in the ***Editing*** group.

Try This Yourself:

Open File *Before starting this exercise you MUST open the file E1327 Sorting_1.xlsx…*

1. Click on the ***Sorting Text*** worksheet tab and spend a few moments studying the data – it is a list of employees
2. Click in cell ***C4*** to select the cell – this is the ***Last Name*** column of the listing
3. On the ***HOME*** tab, click on ***Sort & Filter*** in the ***Editing*** group and select **Sort A to Z**

   The data in the list will be sorted alphabetically in ascending order by last name…
4. Click on ***Sort & Filter*** in the ***Editing*** group again and select **Sort Z to A** to sort the data in descending order
5. Repeat the above steps and sort the list by ***Position***, by ***Office***, and finally by ***E-Mail***

	A	B	C	D	E	
1	**Alpheius Leader Listing**					
2	**Staff Listing**					
3						
4	**No**	**First Name**	**Last Name**	**Position**	**Office**	**E-Mail**
5	NZ0000001	Peter	Reynolds	Enterprise Leader	Auckland	preynolds@alpl
6	NZ0000002	Mary	Campbell	Effective People Leader	Auckland	mcampbell@alp
7	NZ0000003	Helen	Kai	Monies Leader	Auckland	hkai@alpheiusp
8	NZ0000004	Norris	Maunga	Forward Thinking Leader	Auckland	nmaunga@alph
9	NZ0000005	Vivian	Smith	Enterprise Opportunities Leader	Auckland	vsmith@alpheiu
10	NZ0000006	Grace	Goodson	Communications Service Leader	Auckland	ggoodson@alph
11	NZ0000007	Kate	Rualowy	Insurance Service Leader	Auckland	krualowy@alph
12	NZ0000008	Brian	Houson	Banking and Finance Service Leader	Auckland	bhouson@alphe
13	NZ0000009	Tara	Kinelly	Legal Service Leader	Auckland	tkinelly@alphe
14	NZ0000010	Nora	Mita	Building Services Service Leader	Auckland	nmita@alpheiu
15	NZ0000011	Kris	Tamahori	Careers and Education Service Leader	Auckland	ktamahori@alpl
16	NZ0000012	Kelly	Jones	Health Services Service Leader	Auckland	kjones@alpheiu
17	NZ0000013	Arthur	Maohori	Communications Product Leader	Auckland	amaohori@alph
18	NZ0000014	Marama	Takarami	Electronics Product Leader	Auckland	mtakarami@alp

2

	A	B	C	D	E	
1	**Alpheius Leader Listing**					
2	**Staff Listing**					
3						
4	**No**	**First Name**	**Last Name**	**Position**	**Office**	**E-Mail**
5	AU000016	Nellie	Adams	Vehicles Product Leader	Melbourne	nadams@alphe
6	FR000009	Nerida	Arameus	Legal Service Leader	Paris	narameus@alpl
7	US000009	Alfred	Beadel	Legal Service Leader	New York	abeadel@alphe
8	AU000008	Amanda	Bennet	Banking and Finance Service Leader	Melbourne	abennet@alphe
9	NZ0000016	Hine	Boramori	Vehicles Product Leader	Auckland	hboramori@alp
10	FR000010	Victor	Brounson	Building Services Service Leader	Paris	vbrounson@alp
11	AU000014	Victor	Brown	Electronics Product Leader	Melbourne	vbrown@alphe
12	IR0000015	Michelle	Cahalan	Computer Products Product Leader	Dublin	mcahalan@alph
13	IR0000017	Nora	Caissie	Life Style Product Leader	Dublin	ncaissie@alpeiu
14	NZ0000002	Mary	Campbell	Effective People Leader	Auckland	mcampbell@alp
15	FR000008	Katerina	Castalova	Banking and Finance Service Leader	Paris	kcastalova@alp
16	FR000013	Hugo	Castille	Communications Product Leader	Paris	hcastille@alphe
17	US000004	August	Charles	Forward Thinking Leader	New York	acharles@alphe
18	AU000012	Vivienne	Clark	Health Services Service Leader	Melbourne	vclark@alpheiu

3

For Your Reference…

To ***alphabetically sort data*** in a ***list***:

1. Click in the column to sort, then click on the ***HOME*** tab
2. Click on ***Sort & Filter*** in the ***Editing*** group and select either **Sort A to Z** to sort in ascending order, or **Sort Z to A** to sort in descending order

Handy to Know…

- When you choose to sort, Excel searches in all directions from the active cell. The end of the list is deemed to be the first blank cell encountered in all directions: up, down, left and right.
- Excel assumes that the first row of the ***list*** contains the column heading or ***field***.

PERFORMING A NUMERICAL SORT

Microsoft Excel allows you to sort all kinds of data – alphabetic, numeric, dates and mixed. When you place the cell pointer in a cell, Excel determines the data type in that cell and amends the sort commands accordingly. For example, when sorting alphabetical data, the command will be **Sort A to Z**, but for numeric data it changes to **Sort Smallest to Largest**.

Try This Yourself:

Same File

Continue using the previous file with this exercise, or open the file E1327 Sorting_2.xlsx...

1. Click in cell ***A4*** which represents the start of the employee ***No*** column
2. On the ***HOME*** tab, click on ***Sort & Filter*** in the ***Editing*** group and select **Sort A to Z** to sort the data in ascending order

   Notice how the list is sorted first by letters, then numbers…
3. Click in cell ***I5*** which is the start of the ***Age*** column – these cells store numbers
4. Click on ***Sort & Filter*** in the ***Editing*** group again and select **Sort Smallest to Largest** to sort the data from youngest to oldest
5. Repeat the above steps and sort the list by ***Telephone***, by ***Salary Level*** and by ***Service***

	A	B	C	D	E	
1	**Alpheius Leader Listing**					
2	**Staff Listing**					
3						
4	**No**	**First Name**	**Last Name**	**Position**	**Office**	**E-Mail**
5	AU000001	Julianne	Kerr	Enterprise Leader	Melbourne	jkerr@alpheius
6	AU000002	Harry	Jones	Effective People Leader	Melbourne	hjones@alphei
7	AU000003	Angel	Harrington	Monies Leader	Melbourne	aharrignton@al
8	AU000004	Peter	Dawson	Forward Thinking Leader	Melbourne	pdawson@alph
9	AU000005	Mark	Jones	Enterprise Opportunities Leader	Melbourne	mjones@alphei
10	AU000006	Maureen	Grayson	Communications Service Leader	Melbourne	mgrayson@alph
11	AU000007	Augustine	Millson	Insurance Service Leader	Melbourne	amillson@alphe
12	AU000008	Amanda	Bennet	Banking and Finance Service Leader	Melbourne	abennet@alphe
13	AU000009	George	Samuelson	Legal Service Leader	Melbourne	gsamuelson@al
14	AU000010	Neville	Smith	Building Services Service Leader	Melbourne	nsmith@alphei
15	AU000011	Petra	Henricks	Careers and Education Service Leader	Melbourne	phenricks@alph
16	AU000012	Vivienne	Clark	Health Services Service Leader	Melbourne	vclark@alpheiu
17	AU000013	Jerry	Hancock	Communications Product Leader	Melbourne	jhancock@alphe
18	AU000014	Victor	Brown	Electronics Product Leader	Melbourne	vbrown@alphe

2

F	G	H	I	J	K	L
il	**Telephone**	**DOB**	**Age**	**Salary Level**	**Started**	**Service**
owy@alpheiusge.com.nz	64 9 344 0207	6/07/1982	31.6	6	22/05/2000	13.7
alova@alpheiusge.fr	33 1 35 66 02 63	12/11/1980	33.2	6	24/04/2000	13.8
ausse@alpheiusge.fr	33 1 35 66 02 67	5/06/1980	33.7	6	24/04/2000	13.8
es@alpheiusge.ie	353 1 873 6569	3/04/1980	33.8	6	9/08/1999	14.5
arami@alpheiusge.com.nz	64 9 344 0214	19/12/1979	34.1	5	22/05/2000	13.7
son@alpheiusge.com.au	61 3 9844 0008	26/12/1978	35.1	6	6/09/1999	14.4
ricks@alpheiusge.com.au	61 3 9844 0012	14/07/1978	35.6	6	6/09/1999	14.4
es@alpheiusge.com.nz	64 9 344 0212	24/05/1978	35.7	6	22/05/2000	13.7
mbe@alpheiusge.fr	33 1 35 66 02 62	16/05/1978	35.7	6	24/04/2000	13.8
iams@alpheiusge.com	1 718 387 5215	23/04/1978	35.8	4	29/11/1999	14.2
wn@alpheiusge.com.au	61 3 9844 0015	13/04/1978	35.8	5	6/09/1999	14.4
wd@alpheiusge.ie	353 1 873 6559	12/03/1978	35.9	4	12/07/1999	14.6
very@alpheiusge.ie	353 1 873 6568	2/03/1978	35.9	6	9/08/1999	14.5
ers@alpheiusge.com	1 718 387 5222	28/02/1978	35.9	6	10/01/2000	14.1

4

For Your Reference…

To ***sort*** a ***list numerically***:

1. Click in the column to sort
2. On the ***HOME*** tab, click on ***Sort & Filter*** in the ***Editing*** group and select either **Sort Smallest to Largest** to sort in ascending order or **Sort Largest to Smallest** to sort in descending order

Handy to Know…

- If a numeric column contains a formula which displays a calculated value, the sort operation will be performed on the calculated value rather than the formula.

SORTING ON MORE THAN ONE COLUMN

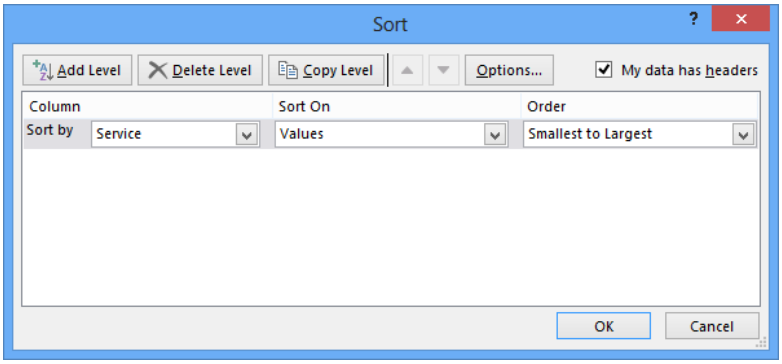
Excel allows you to select multiple columns to sort by, thereby enabling you to analyse data according to different categories. Each column is sorted in order one at a time. The listing is sorted by the first column, then by the second column, and so on. For example, a staff listing can be sorted first by ***Position***, then by ***Last Name*** so that each position contains an alphabetical sub-listing.

Try This Yourself:

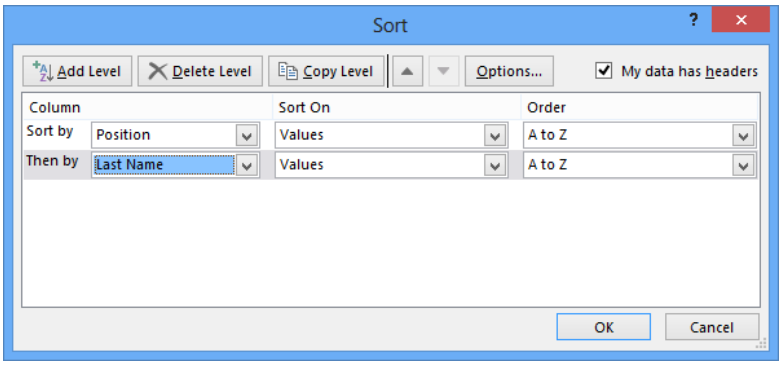
Same File *Continue using the previous file with this exercise, or open the file E1327 Sorting_3.xlsx...*

1. Click in cell ***A4*** to position the active cell within the list
2. On the ***HOME*** tab, click on ***Sort & Filter*** in the ***Editing*** group and select **Custom Sort** to display the ***Sort*** dialog box
3. Click on the drop arrow for ***Sort by*** to display a list of the field (column) names, then click on ***Position***
4. Click on **[Add Level]** to add another level in the dialog box
5. Click on the drop arrow for ***Then by*** and click on ***Last Name***
6. Click on **[OK]** to display the list sorted by ***Position*** then by ***Last Name***

2



5



	A	B	C	D	E	
1	**Alpheius Leader Listing**					
2	**Staff Listing**					
3						
4	**No**	**First Name**	**Last Name**	**Position**	**Office**	**E-Mail**
5	AU000008	Amanda	Bennet	Banking and Finance Service Leader	Melbourne	abennet@alphe
6	FR000008	Katerina	Castalova	Banking and Finance Service Leader	Paris	kcastalova@alp
7	US000008	Mary-Lou	Dawson	Banking and Finance Service Leader	New York	mdawson@alph
8	NZ0000008	Brian	Houson	Banking and Finance Service Leader	Auckland	bhouson@alphe
9	IR0000008	Eireann	McCafferty	Banking and Finance Service Leader	Dublin	emccafferty@al
10	FR000010	Victor	Brounson	Building Services Service Leader	Paris	vbrounson@alp
11	IR0000010	Paddy	Deegan	Building Services Service Leader	Dublin	pdeegan@alphe
12	NZ0000010	Nora	Mita	Building Services Service Leader	Auckland	nmita@alpheiu
13	US000010	Marianne	Morris	Building Services Service Leader	New York	mmorris@alphe
14	AU000010	Neville	Smith	Building Services Service Leader	Melbourne	nsmith@alphei
15	IR0000011	Kira	Convery	Careers and Education Service Leader	Dublin	kconvery@alph
16	AU000011	Petra	Henricks	Careers and Education Service Leader	Melbourne	phenricks@alph
17	FR000011	Xanthea	Maurice	Careers and Education Service Leader	Paris	xmaurice@alph
18	NZ0000011	Kris	Tamahori	Careers and Education Service Leader	Auckland	ktamahori@alp

6

For Your Reference…

To ***sort*** on ***more than one column***:

1. Click on the ***HOME*** tab, then click on ***Sort & Filter*** in the ***Editing*** group
2. Select **Custom Sort**
3. Specify the columns to sort the list on

Handy to Know…

- Be careful when sorting large lists that go beyond the boundaries of the screen. You should ensure that there are no blank rows or columns that can result in you omitting some of the data.

UNDERSTANDING FILTERING

Filtering refers to comparing a list of records against specific criteria and then hiding the records that don't match the criteria. It can be used simply to help find a record, or to create a subset of data that you can then edit, format, copy, move, chart or otherwise manipulate without affecting the other records. Here's a brief example of how simple filtering works.

An Example of Filtering

Here is a list of 65 records in a table. The field names appear at the top and are *No*, *First Name*, *Last Name* and so on. After filtering using the criterion of ***Type*** = ***Gold***, the list is reduced to the 16 records that have the word ***Gold*** in the ***Type*** column and the other records are hidden. Notice the row numbers on the left – these confirm that some of the rows are not visible

Membership

No	First Name	Last Name	Joined	Yea	Suburb	Type	Annual F
1	Roger	Wilson	12/01/1988	26.1	Brighton	Gold	1,125.50
2	Mary	Driscoll	23/02/1998	16.0	South Melbourne	Theatre	850.00
3	Kate	Fu	2/02/1988	26.0	Bentleigh	Silver	750.00
4	Julie	Gregory	5/02/1988	26.0	Ascot Vale	Junior	55.00
5	Peter	Harrison	11/02/1988	26.0	Traralgon	Theatre	850.00
6	Harold	Lowe	20/02/1988	26.0	Sunshine	Theatre	850.00
7	Oscar	Renn	24/02/1988	26.0	Moonee Ponds	Silver	750.00
8	Melinda	Wrill	27/02/1988	25.9	Bentleigh	Gold	1,125.50
9	Fred	Jackson	4/03/1988	25.9	Brighton	Life	55.00
10	Mary	Lewis	13/03/1988	25.9	Christmas Hills	Gold	1,125.50
11	Katherine	Smith	17/04/1989	24.8	Endeavour Heights	Junior	55.00
12	June	Gregson	20/04/1989	24.8	Heidelberg Heights	Theatre	850.00
13	Auguste	Smythe	26/04/1989	24.8	Ivanhoe	Junior	55.00
14	Harry	Jones	5/05/1989	24.8	Denis	Gold	1,125.50
15	Wilbur						
16	Donald						
17	Shelly						
18	Samantha						
19	Louise						
20	Martin						
21	Bernard						
22	Brenda						
23	Jim						

Membership

No	First Name	Last Name	Joined	Yea	Suburb	Type	Annual F
1	Roger	Wilson	12/01/1988	26.1	Brighton	Gold	1,125.50
8	Melinda	Wrill	27/02/1988	25.9	Bentleigh	Gold	1,125.50
10	Mary	Lewis	13/03/1988	25.9	Christmas Hills	Gold	1,125.50
14	Harry	Jones	5/05/1989	24.8	Denis	Gold	1,125.50
19	Louise	Vincenzo	3/07/1990	23.6	Watsonia	Gold	1,125.50
24	Jennifer	Jones	31/08/1991	22.4	Echuca	Gold	1,125.50
25	George	Smith	9/09/1991	22.4	Mildura	Gold	1,125.50
28	John	Lux	28/10/1992	21.3	Allandale	Gold	1,125.50
29	Greg	Tantra	3/11/1992	21.3	Echuca	Gold	1,125.50
38	Quentin	Charles	26/02/1995	18.9	Ferntree Gully	Gold	1,125.50
40	Stephen	Adams	10/03/1995	18.9	Princes Park	Gold	1,125.50
45	Dennis	Georges	10/05/1996	17.7	Fitzroy	Gold	1,125.50
47	Martin	Branson	25/05/1996	17.7	South Melbourne	Gold	1,125.50
51	James	Lewis	17/07/1997	16.6	Rosanna	Gold	1,125.50
54	Yu	Krik	7/08/1997	16.5	Wallan	Gold	1,125.50
64	Mary	Jenkins	12/02/1999	15.0	Victor Harbour	Gold	1,125.50

APPLYING AND USING A FILTER

The ***Filter*** command applies (or removes) drop arrows to the right of the column labels in the list. When you click on a ***Filter*** arrow, it displays a list of the unique items in the column, including blanks and non-blanks. By selecting an item from a list for a specific column, you can instantly hide all rows that don't contain the selected value, and display only those that do.

Try This Yourself:

Open File

Before starting this exercise you MUST open the file E1328 Filtering Data_1.xlsx...

1. Click anywhere in the list

   The values in Years in your worksheet may vary from those shown here because Years updates automatically to show the current duration of membership…

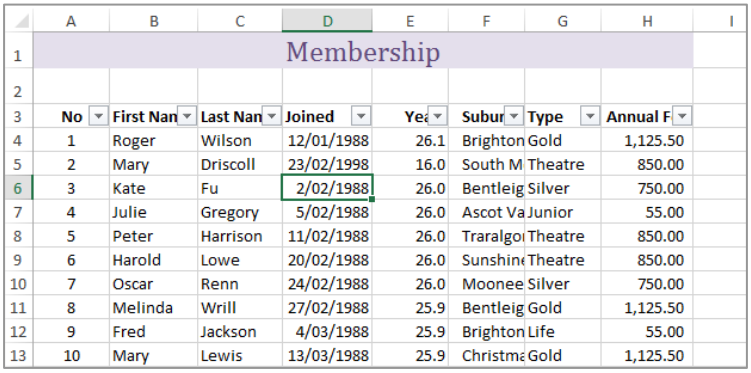
2. Click on the ***DATA*** tab, then click on ***Filter*** in the ***Sort & Filter*** group

3. Click on the filter arrow to the right of ***Type*** to display a list of options

4. Click on ***(Select All)*** to remove all of the ticks, then click on ***Gold*** and click on **[OK]**

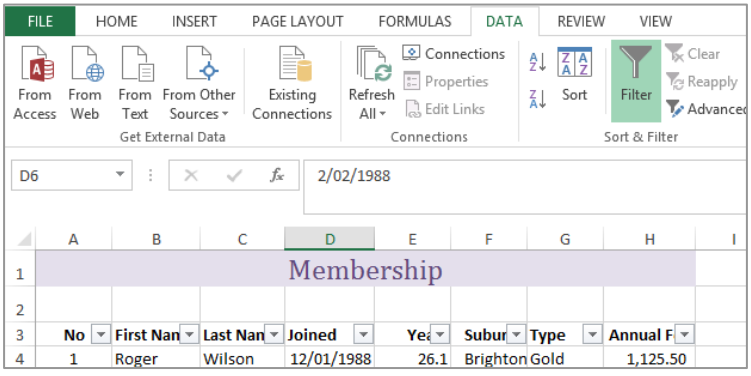
   All records for Gold memberships will be shown and the rest of the records temporarily hidden.

   Notice that the drop arrow next to Type has changed indicating that a filter is active on this column



	A	B	C	D	E	F	G	H
1				Membership				
2								
3	No	First Nan	Last Nan	Joined	Yea	Subur	Type	Annual F
4	1	Roger	Wilson	12/01/1988	26.1	Brighton	Gold	1,125.50
5	2	Mary	Driscoll	23/02/1998	16.0	South M	Theatre	850.00
6	3	Kate	Fu	2/02/1988	26.0	Bentleig	Silver	750.00
7	4	Julie	Gregory	5/02/1988	26.0	Ascot Va	Junior	55.00
8	5	Peter	Harrison	11/02/1988	26.0	Traralgo	Theatre	850.00
9	6	Harold	Lowe	20/02/1988	26.0	Sunshin	Theatre	850.00
10	7	Oscar	Renn	24/02/1988	26.0	Moonee	Silver	750.00
11	8	Melinda	Wrill	27/02/1988	25.9	Bentleig	Gold	1,125.50
12	9	Fred	Jackson	4/03/1988	25.9	Brighton	Life	55.00
13	10	Mary	Lewis	13/03/1988	25.9	Christma	Gold	1,125.50

1



	A	B	C	D	E	F	G	H
1				Membership				
2								
3	No	First Nan	Last Nan	Joined	Yea	Subur	Type	Annual F
4	1	Roger	Wilson	12/01/1988	26.1	Brighton	Gold	1,125.50

2

	A	B	C	D	E	F	G	H
1				Membership				
2								
3	No	First Nan	Last Nan	Joined	Yea	Subur	Type	Annual F
4	1	Roger	Wilson	12/01/1988	26.1	Brighton	Gold	1,125.50
11	8	Melinda	Wrill	27/02/1988	25.9	Bentleig	Gold	1,125.50
13	10	Mary	Lewis	13/03/1988	25.9	Christma	Gold	1,125.50
17	14	Harry	Jones	5/05/1989	24.8	Denis	Gold	1,125.50
22	19	Louise	Vincenzo	3/07/1990	23.6	Watsoni	Gold	1,125.50
27	24	Jennifer	Jones	31/08/1991	22.4	Echuca	Gold	1,125.50
28	25	George	Smith	9/09/1991	22.4	Mildura	Gold	1,125.50
31	28	John	Lux	28/10/1992	21.3	Allandal	Gold	1,125.50
32	29	Greg	Tantra	3/11/1992	21.3	Echuca	Gold	1,125.50
41	38	Quentin	Charles	26/02/1995	18.9	Ferntree	Gold	1,125.50

4

For Your Reference…

To ***turn*** the ***filter on*** or ***off***:

1. Click in the data, click on the ***DATA*** tab, then click on ***Filter*** in the ***Sort & Filter*** group

To ***apply*** a ***simple filter***:

1. Click on a filter arrow, click on ***(Select All)***, then click on an option and click on **[OK]**

Handy to Know…

- If the column that you want to filter includes blank cells, you will also have the option ***(Blanks)*** to choose from. This can be used to help you locate missing data.

CLEARING A FILTER

Once a filter has been applied, a subset of data is shown in the list. Before you can apply an alternative filter, the first one must be cleared so that all of the records become available again.

Filters can be cleared either by clicking on ***(Select All)*** in the filter options list or by selecting **Clear Filter From** *"fieldname"* from the menu. You can also remove the filter arrows altogether.

Try This Yourself:

Same File

Continue using the previous file with this exercise, or open the file E1328 Filtering Data_2.xlsx...

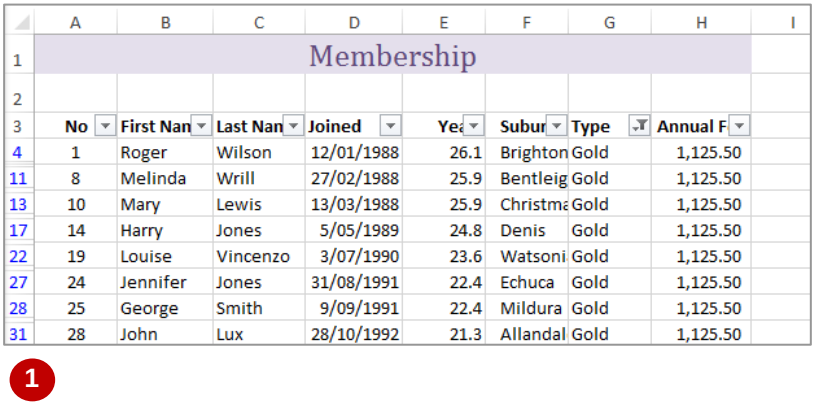
1. Examine the list of records in the spreadsheet

   You'll notice that it is currently filtered on Gold under Type...

2. Click on the filter arrow for ***Type*** and select **Clear Filter From "Type"**

   All of the records will again be listed. You can also remove the filter altogether...

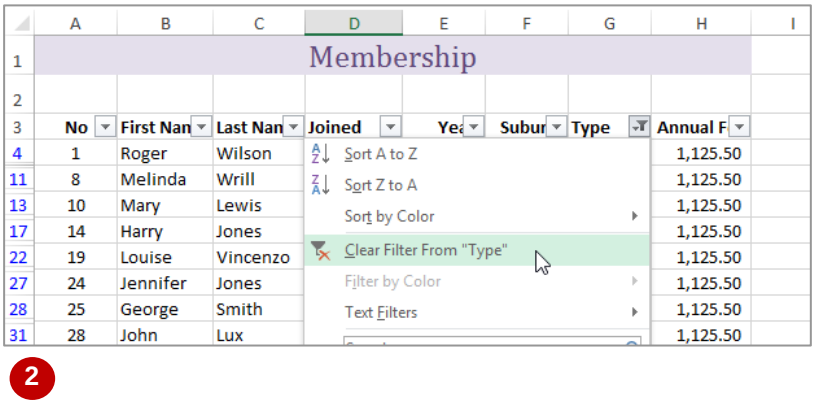
3. Ensure the ***DATA*** tab is active, then click on ***Filter*** in the ***Sort & Filter*** group to remove the filter arrows



Membership

No	First Nan	Last Nan	Joined	Yea	Subur	Type	Annual F
1	Roger	Wilson	12/01/1988	26.1	Brighton	Gold	1,125.50
8	Melinda	Wrill	27/02/1988	25.9	Bentleig	Gold	1,125.50
10	Mary	Lewis	13/03/1988	25.9	Christma	Gold	1,125.50
14	Harry	Jones	5/05/1989	24.8	Denis	Gold	1,125.50
19	Louise	Vincenzo	3/07/1990	23.6	Watsoni	Gold	1,125.50
24	Jennifer	Jones	31/08/1991	22.4	Echuca	Gold	1,125.50
25	George	Smith	9/09/1991	22.4	Mildura	Gold	1,125.50
28	John	Lux	28/10/1992	21.3	Allandal	Gold	1,125.50

1



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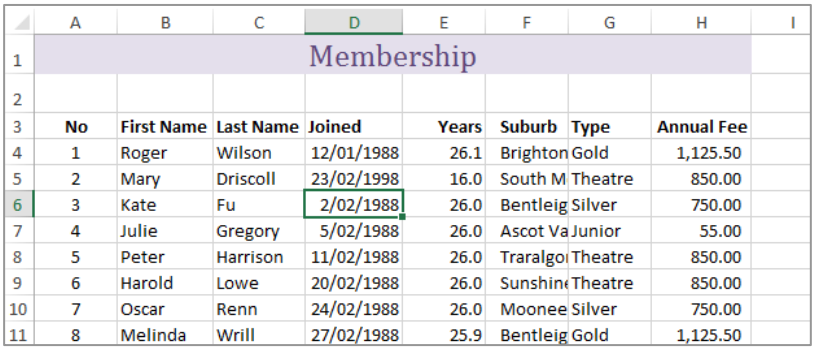


Membership

No	First Name	Last Name	Joined	Years	Suburb	Type	Annual Fee
1	Roger	Wilson	12/01/1988	26.1	Brighton	Gold	1,125.50
2	Mary	Driscoll	23/02/1998	16.0	South M	Theatre	850.00
3	Kate	Fu	2/02/1988	26.0	Bentleig	Silver	750.00
4	Julie	Gregory	5/02/1988	26.0	Ascot Va	Junior	55.00
5	Peter	Harrison	11/02/1988	26.0	Traralgo	Theatre	850.00
6	Harold	Lowe	20/02/1988	26.0	Sunshine	Theatre	850.00
7	Oscar	Renn	24/02/1988	26.0	Moonee	Silver	750.00
8	Melinda	Wrill	27/02/1988	25.9	Bentleig	Gold	1,125.50

3

For Your Reference…

To ***clear*** the ***filter***:

1. Click on the filter arrow
2. Select **Clear Filter From** "*fieldname*"

To ***remove*** the ***filter arrows***:

1. Click on the ***DATA*** tab, then click on ***Filter*** in the ***Sort & Filter*** group

Handy to Know…

- You can remove the filter altogether in one step by clicking on ***Filter*** . Use the **Clear Filter From** command when you want to perform subsequent filters.

CREATING COMPOUND FILTERS

The ***Filter*** tool allows you to select a filter on one column or field at a time. When the filter is applied, the records that match that filter will be displayed. As you create successive filters on other fields, the filters are applied to only the records that are currently on display. In other words, the filters build up on each other, or ***compound***, refining the list as required.

Try This Yourself:

Same File

Continue using the previous file with this exercise, or open the file E1328 Filtering Data_3.xlsx...

1. Click anywhere in the list, ensure the ***DATA*** tab is active, then click on ***Filter*** in the ***Sort & Filter*** group to display the filter arrows

2. Click on the filter arrow for ***Type*** and click on **(Select All)**, then click on ***Theatre*** and click on **[OK]**

   Only the records for Theatre are displayed…

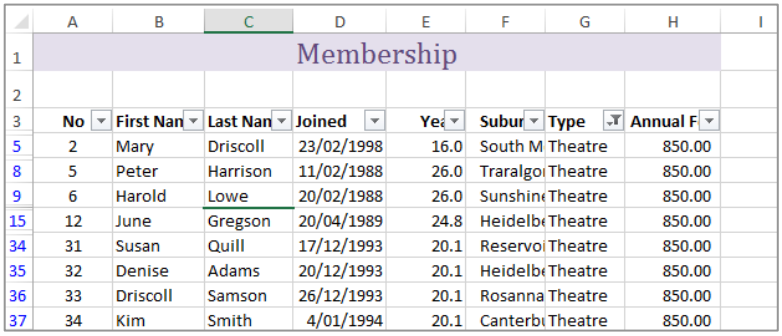
3. Click on the filter arrow for ***Suburb***, click on ***(Select All)***, click on ***Heidelberg Heights***, then click on **[OK]**

   Only the Theatre members in Heidelberg Heights are now shown. Let's see if there are other members who live in Heidelberg Heights...

4. Click on the filter arrow for ***Type*** and select **Clear Filter From "Type"**

   Now that the list is filtered to show all Types in Heidelberg Heights, a Junior member is also listed...

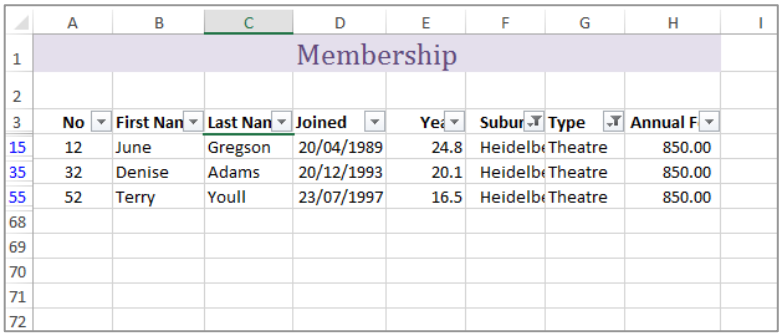
5. Click on the filter arrow for ***Suburb*** and select **Clear Filter From "Suburb"**



Membership

No	First Nan	Last Nan	Joined	Yea	Subur	Type	Annual F
2	Mary	Driscoll	23/02/1998	16.0	South M	Theatre	850.00
5	Peter	Harrison	11/02/1988	26.0	Traralgo	Theatre	850.00
6	Harold	Lowe	20/02/1988	26.0	Sunshine	Theatre	850.00
12	June	Gregson	20/04/1989	24.8	Heidelbe	Theatre	850.00
31	Susan	Quill	17/12/1993	20.1	Reservoi	Theatre	850.00
32	Denise	Adams	20/12/1993	20.1	Heidelbe	Theatre	850.00
33	Driscoll	Samson	26/12/1993	20.1	Rosanna	Theatre	850.00
34	Kim	Smith	4/01/1994	20.1	Canterbu	Theatre	850.00

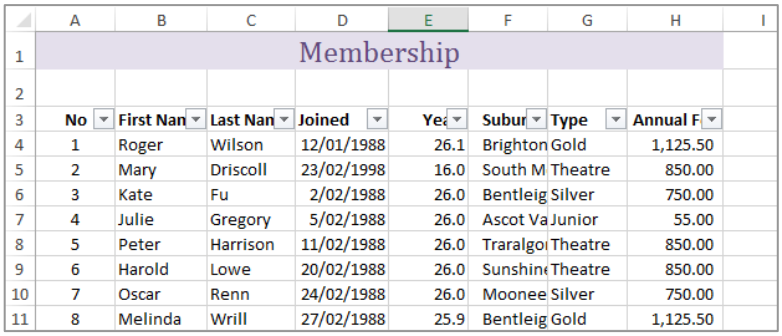
2



Membership

No	First Nan	Last Nan	Joined	Yea	Subur	Type	Annual F
12	June	Gregson	20/04/1989	24.8	Heidelbe	Theatre	850.00
32	Denise	Adams	20/12/1993	20.1	Heidelbe	Theatre	850.00
52	Terry	Youll	23/07/1997	16.5	Heidelbe	Theatre	850.00

3



Membership

No	First Nan	Last Nan	Joined	Yea	Subur	Type	Annual F
1	Roger	Wilson	12/01/1988	26.1	Brighton	Gold	1,125.50
2	Mary	Driscoll	23/02/1998	16.0	South M	Theatre	850.00
3	Kate	Fu	2/02/1988	26.0	Bentleig	Silver	750.00
4	Julie	Gregory	5/02/1988	26.0	Ascot Va	Junior	55.00
5	Peter	Harrison	11/02/1988	26.0	Traralgo	Theatre	850.00
6	Harold	Lowe	20/02/1988	26.0	Sunshine	Theatre	850.00
7	Oscar	Renn	24/02/1988	26.0	Moonee	Silver	750.00
8	Melinda	Wrill	27/02/1988	25.9	Bentleig	Gold	1,125.50

5

For Your Reference…

To ***create*** a ***compound filter***:

1. Apply the first filter to the list to display a subset of the records
2. Apply a second filter to the list to show a subset of the subset of records

Handy to Know…

- When you print a filtered list, Excel will print the list as shown in the worksheet, with all of the unwanted records hidden.

MULTIPLE VALUE FILTERS

You may want to list records by creating two criteria for one field so that you can select records with one of two possible values. For example, you may want to see all the records for two particular suburbs, or two membership types. The filter options list all of the unique values found in that field in the list, so you can click on any of the values that you want to display.

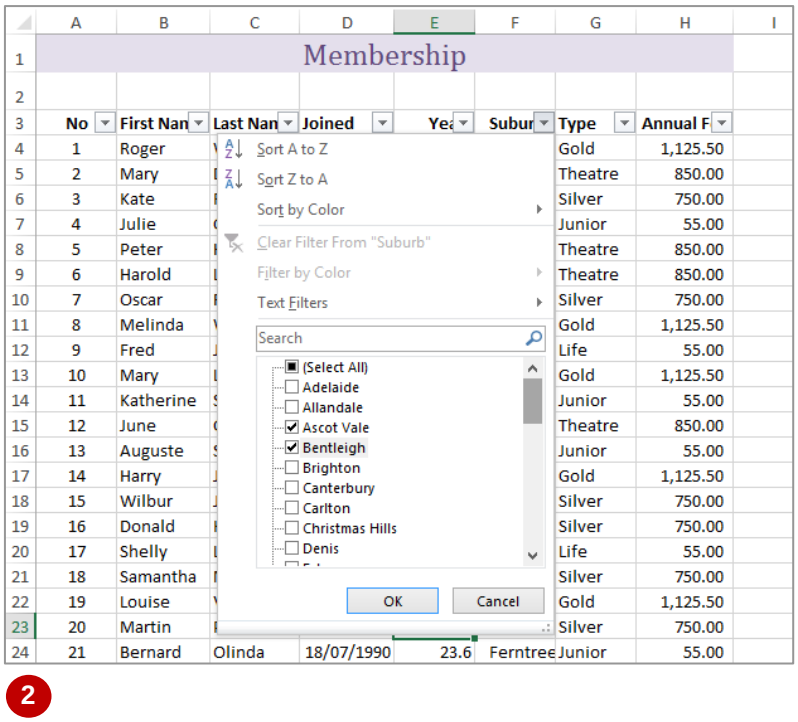
Try This Yourself:

Same File

Continue using the previous file with this exercise, or open the file E1328 Filtering Data_4.xlsx...

1. Click on the filter arrow for ***Suburb*** and click on ***(Select All)*** to remove the ticks
2. Click on ***Ascot Vale*** and ***Bentleigh*** so that ticks appear next to both items
3. Click on **[OK]** to display the filtered list

   Only those records with Ascot Vale or Bentleigh in the Suburb are listed...
4. Click on the filter arrow for ***Suburb*** and select **Clear Filter From "Suburb"** to list all of the records



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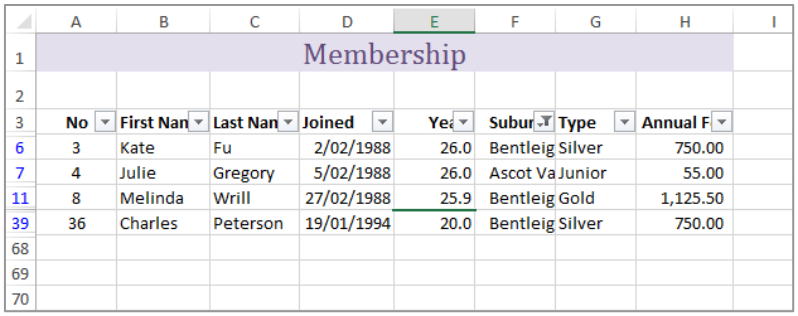


3

For Your Reference…

To ***filter*** on ***multiple values***:

1. Click on the filter arrow for the required field
2. Click on **(Select All)**
3. Click on the checkboxes for each of the values that you want to filter by
4. Click on **[OK]**

Handy to Know…

- Using multiple values in criteria is the same as saying, for example, if Suburb = Ascot Vale ***OR*** Suburb = Bentleigh.
- If the field is a date field, you can filter on specific years, specific months or even specific dates. These are all provided for easy access in the filter menu.

CREATING CUSTOM FILTERS

The ***Filter*** feature enables you to create individual conditions for multiple fields using the drop-down lists. To set more than one condition per field you can use the ***Custom Filter*** option.

This is ideal if you want to select records with one of several possible values, or where you want a record that falls within a range of values rather than matching an exact value.

Try This Yourself:

Same File

Continue using the previous file with this exercise, or open the file E1328 Filtering Data_5.xlsx...

1. Click on the filter arrow for ***Last Name***, point to ***Text Filters***, then select **Begins With**

   The Custom AutoFilter dialog box will display…

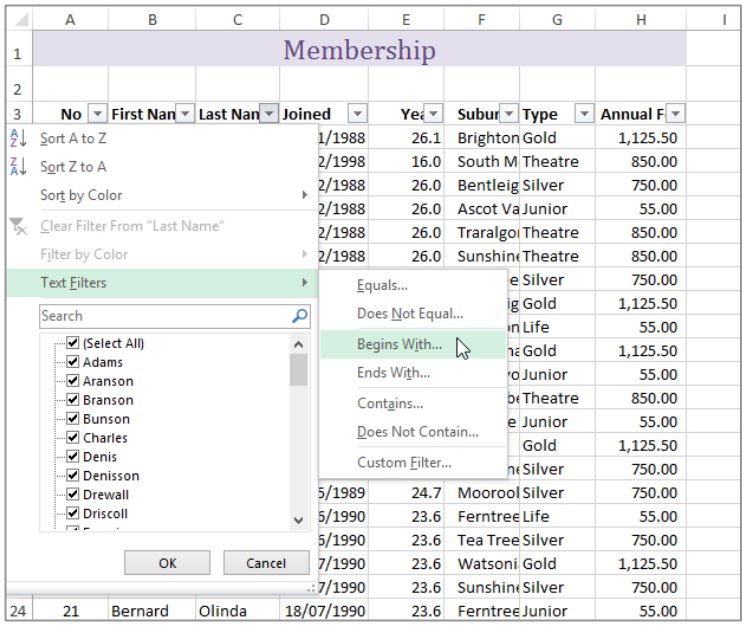
2. Type **W**, as shown

3. Click on **[OK]** to filter the list so that all members with last names beginning with ***W*** are listed

4. Repeat steps ***1*** to ***3*** to create a list of members whose surnames start with ***S***

5. Click on the filter arrow for ***Last Name*** and select **Clear Filter from "Last Name"**

1



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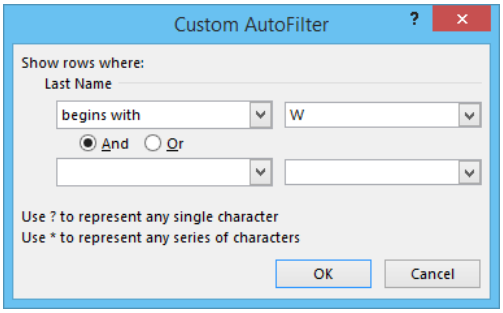

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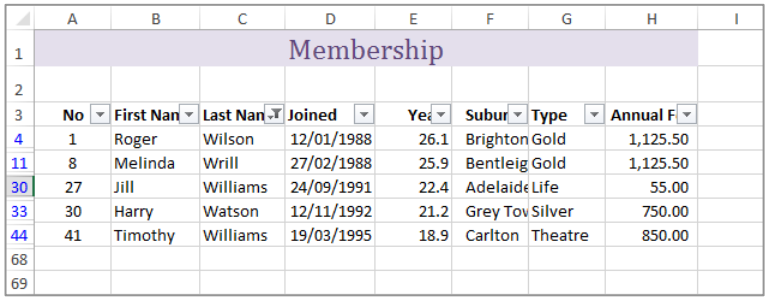


No	First Nan	Last Nan	Joined	Yea	Subur	Type	Annual F
1	Roger	Wilson	12/01/1988	26.1	Brighton	Gold	1,125.50
8	Melinda	Wrill	27/02/1988	25.9	Bentleig	Gold	1,125.50
27	Jill	Williams	24/09/1991	22.4	Adelaide	Life	55.00
30	Harry	Watson	12/11/1992	21.2	Grey Tov	Silver	750.00
41	Timothy	Williams	19/03/1995	18.9	Carlton	Theatre	850.00

For Your Reference…

To ***create*** a ***custom filter***:

1. Click on the filter arrow for the field
2. Select *FieldType* **Filters** > *[option]*
3. Type the filter criteria
4. Click on **[OK]**

Handy to Know…

- If you are not sure how to spell a word, but know that it includes particular letters, you can search using the criteria ***contains***.
- Each of the ***equals***, ***contains***, ***begins with***, and ***ends with*** criteria have an opposite choice e.g., ***does not equal***, ***does not contain*** etc.

USING WILDCARDS

If you need to filter for specific values in a list, you can select them individually from the filter menu or use ***wildcards*** to create a more powerful filter. Wildcards are characters that can be substituted for any character (***?***) or series of characters (*******). For example, ***B*N*** would find all words starting with B and ending with N, while ***B?N*** would find the same, but look for three letters.

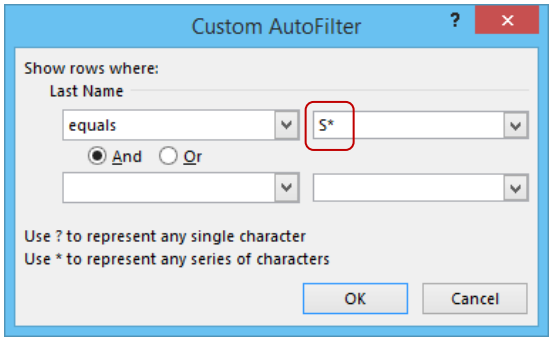
Try This Yourself:

Same File — *Continue using the previous file with this exercise, or open the file E1328 Filtering Data_6.xlsx...*

1. Click on the filter arrow for ***Last Name***, point to ***Text Filters***, then select **Custom Filter** to display the ***Custom AutoFilter*** dialog box
2. Type **S***
3. Click on **[OK]** to see the members whose names begin with the letter ***S***
4. Repeat step ***1*** to display the ***Custom AutoFilter*** dialog box

   Notice that Excel changed your criteria so that it now reads "begins with S"…
5. Click on the drop arrow below ***Last Name***, scroll up and select ***equals***, then click in the field to the right of ***S*** and type ****n***
6. Click on **[OK]** to see the names that begin with ***S*** and end with ***n***
7. Click on the filter arrow for ***Last Name*** and select **Clear Filter From "Last Name"** to display all of the records

2



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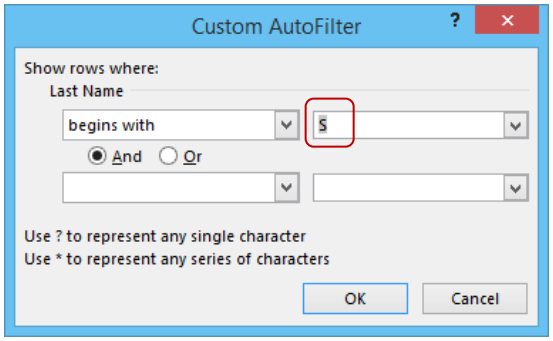

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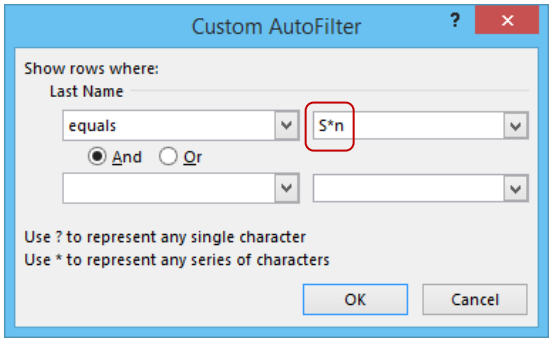


6

	A	B	C	D	E	F	G	H	I
1	Membership								
2									
3	No	First Nan	Last Nan	Joined	Yea	Subur	Type	Annual F	
36	33	Driscoll	Samson	26/12/1993	20.1	Rosanna	Theatre	850.00	
62	59	Tom	Samson	5/10/1998	15.3	Maribyrn	Junior	55.00	
68									
69									

For Your Reference…

To ***use wildcards*** in ***custom criteria***:

1. Click on a filter arrow, then point to ***Text Filters***
2. Select **Custom Filter**
3. Enter a criteria with either an ******* or a ***?*** depending on what you are searching for

Handy to Know…

- You can filter for the question mark or asterisk character as the actual character itself, and not the wildcard character, by preceding the character with the ***tilde ~***. For example, if you use the criteria ***Year~?***, Excel will search for the character string ***Year?***.

UNDERSTANDING ADVANCED FILTERING

To work with ***Advanced Filters*** in Excel, you need to understand a few of the concepts that are used. A list in Excel is a series of rows of information. Each row is effectively one unit of information. This structure is very similar to a simple database and therefore Excel uses similar terminology to describe the parts of the list. The following illustrates a list and its parts.

Fields, Field Names and Records

A ***field*** is a ***column*** in the list of data. In the example below, the column of data for the ***Last Name*** is an example of a field.

The ***field name*** is the ***heading*** at the top of the column. The field names within one list must be unique. In the example below, the text ***Annual Fee*** is an example of a field name.

A ***record*** is a ***row*** of data in the list. Each record is one item of data in the list. In the example below, the row of information for ***Fred Jackson*** is one record. Note that advanced filters do not work correctly if there are blank rows in the list.

Field *Field Name*

No	First Name	Last Name	Joined	Years	Suburb	Type	Annual Fee
1	Roger	Wilson	12/01/1998	16.0	Brighton	Gold	1,125.50
2	Mary	Driscoll	23/02/1998	15.9	South Melbourne	Theatre	850.00
3	Kate	Fu	2/02/1998	15.9	Bentleigh	Silver	750.00
4	Julie	Gregory	5/02/1998	15.9	Ascot Vale	Junior	55.00
5	Peter	Harrison	11/02/1998	15.9	Traralgon	Theatre	850.00
6	Harold	Lowe	20/02/1998	15.9	Sunshine	Theatre	850.00
7	Oscar	Renn	24/02/1998	15.9	Moonee Ponds	Silver	750.00
8	Melinda	Wrill	27/02/1998	15.9	Bentleigh	Gold	1,125.50
9	Fred	Jackson	4/03/1998	15.9	Brighton	Life	55.00
10	Mary	Lewis	13/03/1998	15.8	Christmas Hills	Gold	1,125.50

Record

Criteria, Criteria Range, AND and OR

Criteria are tests against the data in specific fields, for instance ***Gold***. When ***Gold*** is tested against the field ***Type***, the filter would display only the people with ***Gold*** memberships. All other records are filtered out (hidden).

The ***criteria range*** is the area where you specify the criteria. The first row contains the field names that mirror those in the list. The second and subsequent rows are used to type the criteria or examples of what you are looking for in the list.

If you want the conditions between fields joined with an ***AND***, you write the conditions on the same row. If you want them joined with an ***OR***, you write the conditions on separate rows. In the next example, our criteria specifies greater than ***15*** years membership ***AND Gold*** membership.

Criterion *Criterion Range*

Membership Renewals		Years	Type
		>=15	Gold

No	First Name	Last Name	Joined	Years	Suburb	Type	Annual Fee
1	Roger	Wilson	12/01/1988	26.0	Brighton	Gold	1,125.50
8	Melinda	Wrill	27/02/1988	25.9	Bentleigh	Gold	1,125.50
10	Mary	Lewis	13/03/1988	25.9	Christmas Hills	Gold	1,125.50
14	Harry	Jones	5/05/1989	24.7	Denis	Gold	1,125.50
19	Louise	Vincenzo	3/07/1990	23.6	Watsonia	Gold	1,125.50

USING AN ADVANCED FILTER

To use an ***Advanced Filter***, you need to create a criteria area, enter your criteria, specify the list to be filtered and then run the filter. The ***Advanced Filter*** tool has one distinct advantage over other filtering techniques (such as AutoFilter), you type your criteria directly into the worksheet. The criteria are always visible in the worksheet above the records that you have filtered.

Try This Yourself:

Open File — *Before starting this exercise you MUST open the file E1357 Advanced Filters_1.xlsx...*

1. Study the list of records to familiarise yourself with the data

   First we need to add criteria...

2. Type the labels and values in the range ***D2:E3*** as shown

   The criteria reads "where Years are greater than or equal to 20 AND the Type is Silver". Now to apply the filter...

3. Click in cell ***E6*** so that Excel can locate the list

4. Click on the ***DATA*** tab, then click on ***Advanced*** in the ***Sort & Filter*** group to display the ***Advanced Filter*** dialog box

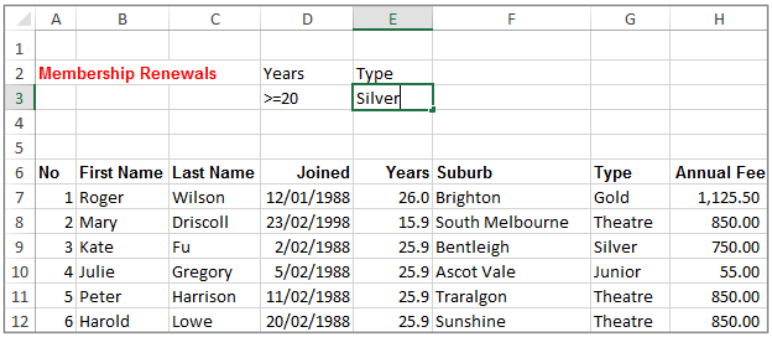
   The List range is automatically selected...

5. Click in ***Criteria range***, then type **D2:E3**

6. Click on **[OK]**

   Only the records matching the criteria will be displayed...

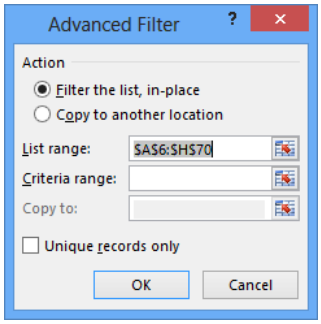
7. On the ***DATA*** tab, click on ***Clear*** in the ***Sort & Filter*** group to restore the list



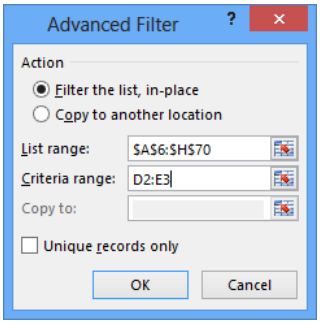
	A	B	C	D	E	F	G	H
1								
2	Membership Renewals			Years	Type			
3				>=20	Silver			
4								
5								
6	No	First Name	Last Name	Joined	Years	Suburb	Type	Annual Fee
7	1	Roger	Wilson	12/01/1988	26.0	Brighton	Gold	1,125.50
8	2	Mary	Driscoll	23/02/1998	15.9	South Melbourne	Theatre	850.00
9	3	Kate	Fu	2/02/1988	25.9	Bentleigh	Silver	750.00
10	4	Julie	Gregory	5/02/1988	25.9	Ascot Vale	Junior	55.00
11	5	Peter	Harrison	11/02/1988	25.9	Traralgon	Theatre	850.00
12	6	Harold	Lowe	20/02/1988	25.9	Sunshine	Theatre	850.00

2

4



5



	A	B	C	D	E	F	G	H
1								
2	Membership Renewals			Years	Type			
3				>=20	Silver			
4								
5								
6	No	First Name	Last Name	Joined	Years	Suburb	Type	Annual Fee
9	3	Kate	Fu	2/02/1988	25.9	Bentleigh	Silver	750.00
13	7	Oscar	Renn	24/02/1988	25.9	Moonee Ponds	Silver	750.00
21	15	Wilbur	Johnson	11/05/1989	24.7	Sunshine	Silver	750.00
22	16	Donald	Kendall	20/05/1989	24.6	Mooroolbark	Silver	750.00
24	18	Samantha	Martin	27/06/1990	23.5	Tea Tree Hill	Silver	750.00
26	20	Martin	Pollard	9/07/1990	23.5	Sunshine	Silver	750.00

6

For Your Reference…

To ***use*** the ***Advanced Filter***:

1. Create the criteria range
2. Click in the list to be filtered
3. Click on the ***DATA*** tab, then click on ***Advanced*** in the ***Sort & Filter*** group
4. Type the ***Criteria range***, then click on **[OK]**

Handy to Know…

- When using the ***Advanced Filter*** dialog box, if you can't remember the range of cells that hold certain values (e.g. ***Criteria range***), you can click on ***Collapse Dialog*** which moves the focus to the workbook, enabling you to select the actual cells on the relevant worksheet.

EXTRACTING RECORDS WITH ADVANCED FILTER

The ***Advanced Filter*** can be used to filter a list in place (hiding unwanted records) or to extract required records and paste them in another location. By creating a subset of the list, you can further analyse the data without risking accidental modifications of the original list. You must specify the fields that you want and the location where the records are to be copied.

Try This Yourself:

Same File

Continue using the previous file with this exercise, or open the file E1357 Advanced Filters_2.xlsx...

1. Scroll down to and click in cell ***C75***

   This is a blank cell which appears below the list…

2. Type the field headings as shown

   These are the fields that we want to extract according to the criteria listed at the top of the worksheet...

3. Click anywhere in the original list

4. Click on the ***DATA*** tab then click on ***Advanced*** in the ***Sort & Filter*** group

5. Under ***Action*** click on ***Copy to another location***

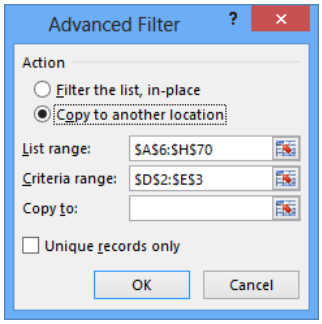
6. Click in ***Copy to*** and type **C75:F75**

7. Click on **[OK]**, then scroll down and examine the extracted data

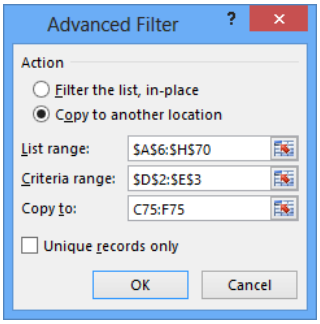
69	63	Cathy	Victor	8/12/1998	15.1	Heidelberg Heights	Junior	55.00
70	64	Mary	Jenkins	12/02/1999	14.9	Victor Harbour	Gold	1,125.50
71								
72								
73								
74								
75			Last Name	Years	Annual Fee	Suburb		
76								
77								
78								
79								
80								
81								
82								
83								

2

5



6



69	63	Cathy	Victor	8/12/1998	15.1	Heidelberg Heights	Junior	55.00
70	64	Mary	Jenkins	12/02/1999	14.9	Victor Harbour	Gold	1,125.50
71								
72								
73								
74								
75			Last Name	Years	Annual Fee	Suburb		
76			Fu	25.9	750.00	Bentleigh		
77			Renn	25.9	750.00	Moonee Ponds		
78			Johnson	24.7	750.00	Sunshine		
79			Kendall	24.6	750.00	Mooroolbark		
80			Martin	23.5	750.00	Tea Tree Hill		
81			Pollard	23.5	750.00	Sunshine		
82			Peters	22.3	750.00	South Melbourne		
83			Watson	21.2	750.00	Grey Towers		

7

For Your Reference…

To ***extract records using*** the ***Advanced Filter***:

1. Create the criteria and extract ranges
2. Click on the ***DATA*** tab, then click on ***Advanced*** in the ***Sort & Filter*** group
3. Click on ***Copy to another location***
4. Type the ***Criteria range*** and ***Copy to*** range, then click on **[OK]**

Handy to Know…

- You can use the extract feature of the ***Advanced Filter*** to create a list of unique codes that are used in a list. For example, to create a list of ***Type*** codes, extract the ***Type*** field with no criteria and select the checkbox ***Unique records only*** in the ***Advanced Filter*** dialog box.

USING FORMULAS IN CRITERIA

By making slight adjustments to the criteria range and using a formula for the criteria, you can create more sophisticated filters. The first row of the criteria range must contain a label that is not the same as a field heading. The criteria example in the second row must be expressed as a ***formula***. The formula often makes a comparison using the first record as a model for all others.

Try This Yourself:

Same File

Continue using the previous file with this exercise, or open the file E1357 Advanced Filters_3.xlsx...

1. Delete the contents of cells ***D2:E3***
2. Type the headings ***AveMem*** in cell ***D2*** and ***Average Membership*** in cell ***F2*** as shown, then enter these formulas:

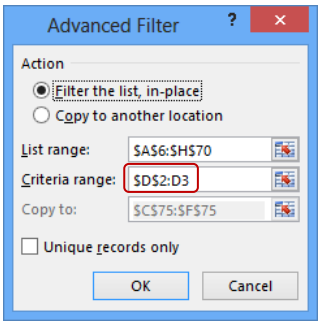
   in ***F3*** **=AVERAGE(E7:E70)**

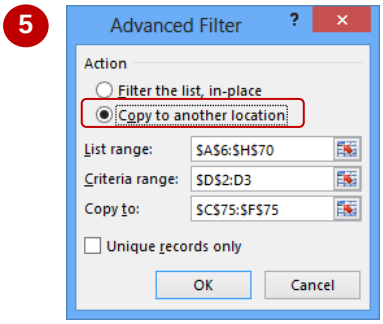
   in ***D3*** **=E7>F3**

   The formula in F3 calculates the average Years (20.4), then the formula in D3 tests the Years of the first record against the average. If the Years are higher than the average, the answer is TRUE. Let's now extract the matching records...
3. Click in the list, then click on the ***DATA*** tab
4. Click on ***Advanced*** in the ***Sort & Filter*** group, then double-click on ***E3*** in ***Criteria range*** and type **D3**
5. Click on ***Copy to another location*** in ***Action*** – we'll use the same ***Copy to*** cell range
6. Click on **[OK]**, then scroll down to examine the extracted data

	A	B	C	D	E	F	G	H
1								
2		Membership Renewals		AveMem		Average Membership		
3				TRUE		20.4		
4								
5								
6	No	First Name	Last Name	Joined	Years	Suburb	Type	Annual Fee
7	1	Roger	Wilson	12/01/1988	26.0	Brighton	Gold	1,125.50
8	2	Mary	Driscoll	23/02/1998	15.9	South Melbourne	Theatre	850.00
9	3	Kate	Fu	2/02/1988	25.9	Bentleigh	Silver	750.00
10	4	Julie	Gregory	5/02/1988	25.9	Ascot Vale	Junior	55.00
11	5	Peter	Harrison	11/02/1988	25.9	Traralgon	Theatre	850.00
12	6	Harold	Lowe	20/02/1988	25.9	Sunshine	Theatre	850.00
13	7	Oscar	Renn	24/02/1988	25.9	Moonee Ponds	Silver	750.00

2





71					
72					
73					
74					
75		Last Name	Years	Annual Fee	Suburb
76		Wilson	26.0	1,125.50	Brighton
77		Fu	25.9	750.00	Bentleigh
78		Gregory	25.9	55.00	Ascot Vale
79		Harrison	25.9	850.00	Traralgon
80		Lowe	25.9	850.00	Sunshine
81		Renn	25.9	750.00	Moonee Ponds
82		Wrill	25.9	1,125.50	Bentleigh
83		Jackson	25.8	55.00	Brighton
84		Lewis	25.8	1,125.50	Christmas Hills

6

For Your Reference…

To ***use formulas*** in ***criteria***:

1. Type a ***criteria heading*** that does not match a field name
2. Create a formula (starting with **=**) below the heading that performs a comparison with the value of a field in the first record

Handy to Know…

- When you perform the ***copy*** operation during filtering, Excel names the header row of the copied records as ***Extract***. It names the cells containing the criteria range as ***Criteria***. You can use these names to navigate quickly to the extract or criteria ranges of the worksheet via the ***Name*** box.