

CSCI-1102: Introduction to Computing

Microsoft Excel 1: Sorting Data

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Sorting Introduction

- ▶ As you add more content to a worksheet, organizing this information becomes especially important.
- ▶ You can quickly **reorganize** a worksheet by **sorting** your data.
- ▶ For example, you could organize a list of contact information by last name.
- ▶ Content can be sorted alphabetically, numerically, and in many other ways.

Types of sorting

- ▶ When sorting data, it's important to first decide if you want the sort to apply to the **entire worksheet** or just a **cell range**.
 - ▶ **Sort sheet** organizes all of the data in your worksheet by one column. Related information across each row is kept together when the sort is applied.
 - ▶ **Sort range** sorts the data in a range of cells, which can be helpful when working with a sheet that contains several tables. Sorting a range will not affect other content on the worksheet.

Sort sheet

- ▶ **Sort sheet** organizes all of the data in your worksheet by one column. Related information across each row is kept together when the sort is applied.
- ▶ In the example below, the **Contact Name** column (column A) has been sorted to display the names in alphabetical order.

	A	B	C	D
1	Customer Contact List			
2	CONTACT NAME	BILLING ADDRESS	PHONE	EMAIL ADDRESS
3	Chaturvedi, Rick	2428 S Redding St #2 B	360-555-5422	info@newhaventraders.com
4	Dean, Hank	3034 Foggy Wharf Loop	308-555-1050	hdean@venturebrewing.com
5	Figgis, Mallory	3520 Sleepy Hearth Dr	425-555-5370	malloryf@archerproperties.com
6	Finn, Jake	1407 Dusty Fawn Ln So	605-555-6435	jake@adventureoutfitters.com
7	Kinkade, Chris	1028 Quiet Dale Rd Ho	443-555-4942	chris.kinkade@placervilleins.com
8	Lawson, Miranda	5316 Colonial Pkwy Est	575-555-9255	mlawson@massairlines.com
9	Reyes, Felicia	8544 Lazy Bluff Ave Wh	316-555-3256	felicia@everlypublishing.com
10	Sebastian, Lil	9060 Easy Evening Ln V	207-555-7225	lil@knoppequestrian.com
11	Silva, Vivica	8595 Thunder Brook Ci	360-555-4289	vivica@rileygardensupply.com
12	Stark, Katie	971 Cinder Butterfly St	603-555-2460	katie.stark@ariarealestate.com
13	Torrance, Jill	3160 Amber Gate Rd R	605-555-4495	jtorrance@overlookinn.com
14	Yuen, Phillip	5108 Crystal Gate Blvd	913-555-5928	yuenp@corepharmaceuticals.com

Sort range

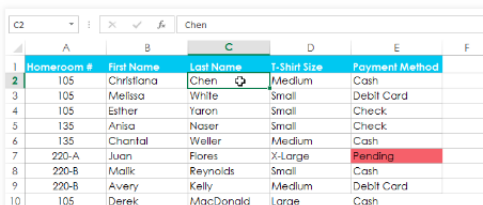
- ▶ **Sort range** sorts the data in a range of cells, which can be helpful when working with a sheet that contains several tables.
- ▶ Sorting a range will not affect other content on the worksheet.

	A	B	C	D	E
1					
2	EXERCISES	SET 1		SET 2	
3		REPS	WEIGHT (lbs)	REPS	WEIGHT (lbs)
4	Bench Press	14	65	12	75
5	Bench Press (Decline)	10	60	8	70
6	Triceps Extension	15	35	20	35
7	Average	13.9	50.5	12.5	54
8					
9		Running Log			
10		Date	Distance (miles)	Time (hrs:mins)	
11		25-Jun	2.8	0:45	
12		26-Jun	3	0:44	
13		27-Jun	2.75	0:42	
14		29-Jun	3.25	0:44	
15		30-Jun	3.25	0:45	
16		2-Jul	2.5	0:44	
17		3-Jul	3	0:30	
18		Total	20.55		
19					

To sort a sheet

- In our example, we'll sort a T-shirt order form alphabetically by **Last Name** (column C).

- 1 Select a **cell** in the column you want to sort by. In our example, we'll select cell **C2**.



	A	B	C	D	E	F
1	Homeroom #	First Name	Last Name	T-Shirt Size	Payment Method	
2	105	Christiana	Chen	Medium	Cash	
3	105	Melissa	White	Small	Debit Card	
4	105	Esther	Yaron	Small	Check	
5	135	Anisa	Naser	Small	Check	
6	135	Chantal	Weller	Medium	Cash	
7	220-A	Juan	Flores	X-Large	Pending	
8	220-B	Malik	Reynolds	Small	Cash	
9	220-B	Avery	Kelly	Medium	Debit Card	
10	105	Derek	MacDonald	Large	Cash	

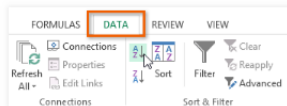
- 2 Select the **Data** tab on the **Ribbon**, then click the **Ascending** command



to Sort A to Z, or the **Descending** command



to Sort Z to A. In our example, we'll click the **Ascending** command.



To sort a sheet

- 3 The worksheet will be **sorted** by the selected column. In our example, the worksheet is now sorted by **last name**.

C2			✕	✓	<i>f_x</i>	Ackerman
	A	B	C	D	E	F
1	Homeroom #	First Name	Last Name	T-Shirt Size	Payment Method	
2	110	Kris	Ackerman	Large	Money Order	
3	105	Nathan	Albee	Medium	Check	
4	220-B	Samantha	Bell	Medium	Check	
5	110	Matt	Benson	Medium	Money Order	
6	105	Christiana	Chen	Medium	Cash	
7	110	Gabriel	Del Toro	Medium	Cash	
8	220-A	Brigid	Ellison	Small	Cash	
9	220-A	Juan	Flores	X-Large	Pending	
10	220-B	Tyrese	Hanlon	X-Large	Debit Card	

To sort a range

- In our example, we'll select a **separate table** in our T-shirt order form to sort the number of shirts that were ordered on different dates.

- 1 Select the **cell range** you want to sort. In our example, we'll select cell range **A13:B17**.

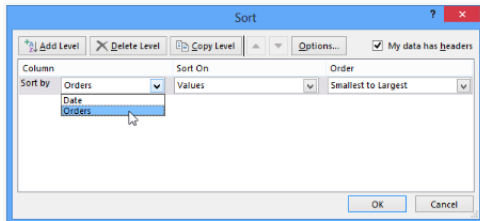
	A	B	C	D
1	Homeroom #	First Name	Last Name	T-Shirt Size
2	110	Kris	Ackerman	Large
3	105	Nathan	Albee	Medium
4	220-B	Samantha	Bell	Medium
5	110	Matt	Benson	Medium
6	105	Christiana	Chen	Medium
7	110	Gabriel	Del Toro	Medium
8	220-A	Brigid	Ellison	Small
9	220-A	Juan	Flores	X-Large
10	220-B	Tyrese	Harlon	X-Large
11				
12	Total Orders By Date			
13	Date	Orders		
14	Friday, April 05, 2013	4		
15	Friday, April 12, 2013	7		
16	Friday, April 19, 2013	10		
17	Friday, April 26, 2013	6		
18				

To sort a range

- 2 Select the **Data** tab on the **Ribbon**, then click the **Sort** command.



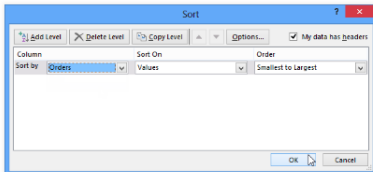
- 3 The **Sort** dialog box will appear. Choose the **column** you want to sort by. In our example, we want to sort the data by the number of T-shirt orders, so we'll select **Orders**.



- 4 Decide the **sorting order** (either ascending or descending). In our example, we'll use **Smallest to Largest**.

To sort a range

- 5 Once you're satisfied with your selection, click **OK**.



- 6 The cell range will be **sorted** by the selected column. In our example, the Orders column will be sorted from **lowest to highest**. Notice that the other content in the worksheet was not affected by the sort.

817				10
	A	B	C	D
1	Homeroom #	First Name	Last Name	T-Shirt Size
2	110	Kris	Ackerman	Large
3	105	Nathan	Albee	Medium
4	220-B	Samantha	Bell	Medium
5	110	Matt	Benson	Medium
6	105	Christiana	Chen	Medium
7	110	Gabriel	Del Toro	Medium
8	220-A	Brigid	Elison	Small
9	220-A	Juan	Flores	X-Large
10	220-B	Tyrese	Hanlon	X-Large
11				
12	Total Orders By Date			
13	Date	Orders		
14	Friday, April 05, 2013	4		
15	Friday, April 26, 2013	6		
16	Friday, April 12, 2013	7		
17	Friday, April 19, 2013	10		
18				

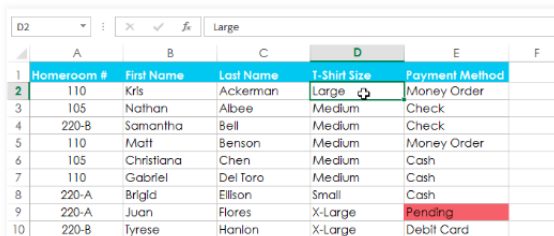
Custom sorting

- ▶ Sometimes you may find that the default sorting options can't sort data in the order you need.
- ▶ Fortunately, Excel allows you to create a **custom list** to define your own sorting order.

To create a custom sort

- ▶ In our example below, we want to sort the worksheet by **T-Shirt Size** (column D). A regular sort would organize the sizes alphabetically, which would be incorrect. Instead, we'll create a custom list to sort from smallest to largest.

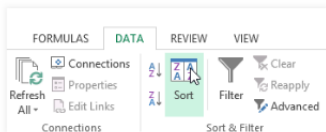
- 1 Select a **cell** in the column you want to sort by. In our example, we'll select cell **D2**.



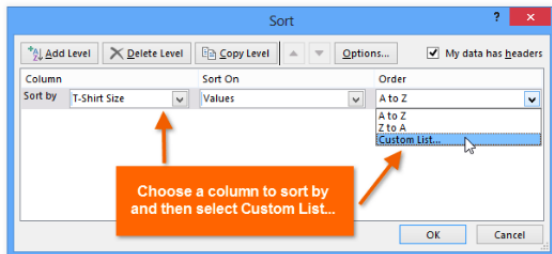
D2				Large		
	A	B	C	D	E	F
1	Homeroom #	First Name	Last Name	T-Shirt Size	Payment Method	
2	110	Kris	Ackerman	Large	Money Order	
3	105	Nathan	Albee	Medium	Check	
4	220-B	Samantha	Bell	Medium	Check	
5	110	Matt	Benson	Medium	Money Order	
6	105	Christiana	Chen	Medium	Cash	
7	110	Gabriel	Del Toro	Medium	Cash	
8	220-A	Brigid	Ellison	Small	Cash	
9	220-A	Juan	Flores	X-Large	Pending	
10	220-B	Tyrese	Harlon	X-Large	Debit Card	

To create a custom sort

- 2 Select the **Data** tab, then click the **Sort** command.



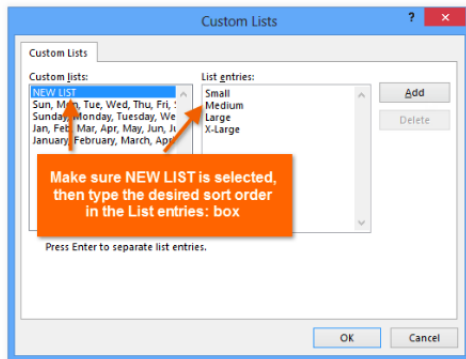
- 3 The **Sort** dialog box will appear. Select the **column** you want to sort by, then choose **Custom List...** from the **Order** field. In our example, we will choose to sort by **T-Shirt Size**.



- 4 The **Custom Lists** dialog box will appear. Select **NEW LIST** from the **Custom Lists:** box.

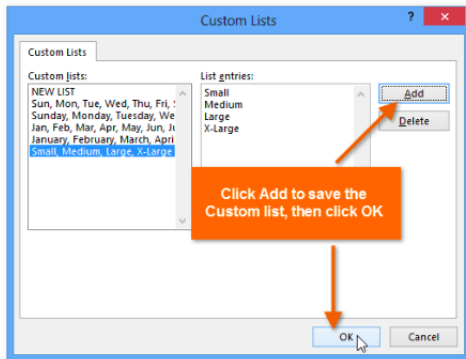
To create a custom sort

- 5 Type the items in the desired custom order in the **List entries:** box. In our example, we want to sort our data by T-shirt size from **smallest** to **largest**, so we'll type **Small, Medium, Large, and X-Large**, pressing **Enter** on the keyboard after each item.



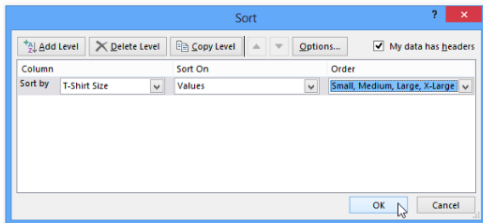
To create a custom sort

- 6 Click **Add** to save the new sort order. The new list will be added to the **Custom lists:** box. Make sure the new list is **selected**, then click **OK**.



To create a custom sort

- 7 The **Custom Lists** dialog box will close. Click **OK** in the **Sort** dialog box to perform the custom sort.



- 8 The worksheet will be **sorted** by the custom order. In our example, the worksheet is now organized by T-shirt size from smallest to largest.

	A	B	C	D	E	F
1	Homeroom #	First Name	Last Name	T-Shirt Size	Payment Method	
2	220-A	Brigid	Ellison	Small	Cash	
3	220-B	Michael	Lazar	Small	Cash	
4	135	Anisa	Naser	Small	Pending	
5	220-A	Christopher	Peyton-Gomez	Small	Check Bounced	
6	220-B	Malik	Reynolds	Small	Cash	
7	220-B	Windy	Shaw	Small	Cash	
8	105	Melissa	White	Small	Debit Card	
9	105	Esther	Yaron	Small	Check	
10	105	Nathan	Albee	Medium	Check	
11	220-B	Samantha	Bell	Medium	Check	
12	220-B	Avery	Kelly	Medium	Debit Card	
13	220-A	Chevonne	Means	Medium	Money Order	
14	135	James	Panarello	Medium	Check	
15	135	Chantal	Weller	Medium	Cash	
16	110	Kris	Ackerman	Large	Money Order	
17	105	Derek	MacDonald	Large	Cash	

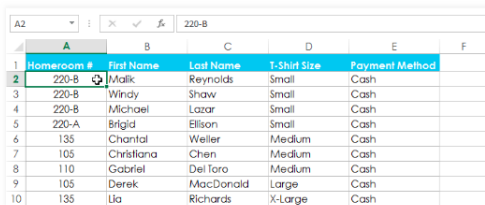
Sorting levels

- ▶ If you need more control over how your data is sorted, you can add multiple **levels** to any sort.
- ▶ This allows you to sort your data by **more than one column**.

To add a level

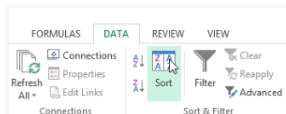
- In our example below, we'll sort the worksheet by **Homeroom Number** (column A), then by **Last Name** (column C).

- 1 Select a **cell** in the column you want to sort by. In our example, we'll select cell **A2**.



	A	B	C	D	E	F
1	Homeroom #	First Name	Last Name	T-Shirt Size	Payment Method	
2	220-B	Malik	Reynolds	Small	Cash	
3	220-B	Windy	Shaw	Small	Cash	
4	220-B	Michael	Lazar	Small	Cash	
5	220-A	Brigid	Ellison	Small	Cash	
6	135	Chantal	Weller	Medium	Cash	
7	105	Christiana	Chen	Medium	Cash	
8	110	Gabriel	Del Toro	Medium	Cash	
9	105	Derek	MacDonald	Large	Cash	
10	135	Ula	Richards	X-Large	Cash	

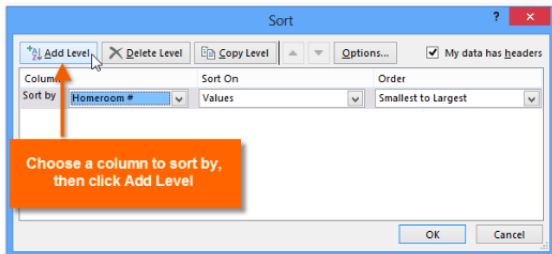
- 2 Click the **Data** tab, then select the **Sort** command.



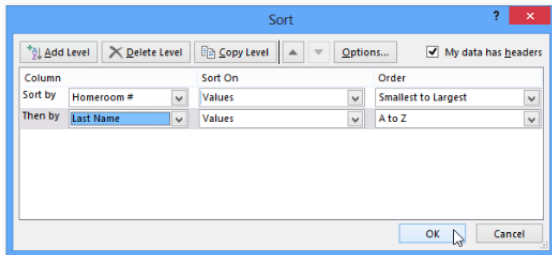
- 3 The **Sort** dialog box will appear. Select the first column you want to sort by. In this example, we will sort by **Homeroom #** (column A).

To add a level

- 4 Click **Add Level** to add another column to sort by.



- 5 Select the next column you want to sort by, then click **OK**. In our example, we'll sort by **Last Name** (column C).



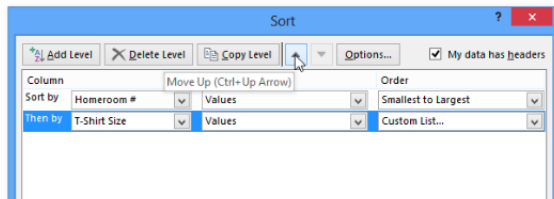
To add a level

- 6 The worksheet will be **sorted** according to the selected order. In our example, the homeroom numbers are sorted numerically. Within each homeroom, students are sorted alphabetically by last name.

	A	B	C	D	E	F
1	Homeroom #	First Name	Last Name	T-Shirt Size	Payment Method	
2	105	Nathan	Albee	Medium	Check	
3	105	Christiana	Chen	Medium	Cash	
4	105	Sidney	Kelly	Medium	Check Bounced	
5	105	Derek	MacDonald	Large	Cash	
6	105	Melissa	White	Small	Debit Card	
7	105	Esther	Yaron	Small	Check	
8	110	Kris	Ackerman	Large	Money Order	
9	110	Matt	Benson	Medium	Money Order	
10	110	Gabriel	Del Toro	Medium	Cash	



If you need to change the order of a multilevel sort, it's easy to control which column is sorted first. Simply select the desired **column**, then click the **Move Up** or **Move Down** arrow to adjust its priority.



Reference

<https://edu.gcfglobal.org/en/excel2013/>