Introduction

If the amount of data in your worksheet becomes overwhelming, creating an outline can help. Not only does this allow you to organize your data into groups and then show or hide them from view, but it also allows you to summarize data for quick analysis using the Subtotal command (for example, subtotaling the cost of office supplies depending on the type of product).

In this lesson, you will learn how to **outline** your worksheet in order to summarize and control how your data is displayed.

Outlining data

Outlines give you the ability to group data you may want to show or hide from view, as well as to create a quick summary using the Subtotal command. Because outlines rely on grouping data that is related, you **must sort before you can outline**.

Optional: You can download **Excel2010_Outlining_**Practice file from moodle for extra practice.

Outlining data using Subtotal

The **Subtotal** command can be used to outline your worksheet in several ways. It uses common functions like SUM, COUNT, and AVERAGE to **summarize** your data and place it in a **group.**
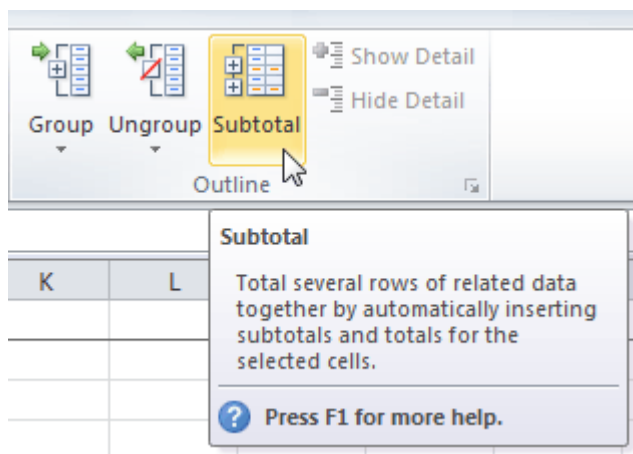
In this example, we'll use the Subtotal command to count the number of T-shirt sizes that were ordered at a local high school. This will also place each T-shirt size in a group, making it possible to show the count but hide the details that are not crucial to placing the order (such as a student's homeroom number and payment date).

To outline data using Subtotal:

1. **Sort** according to the data you want to outline. Outlines rely on grouping data that is related. In this example, we will outline the worksheet by T-Shirt Size, which has been sorted from smallest to largest.

	C	D	E	F
1	**Last Name**	**Payment**	**T-Shirt Color**	**T-Shirt Size**
4	Ellison	Pending	Dark Red	Small
5	White	7-Oct	Heather Grey	Small
6	Reynolds	7-Oct	Heather Grey	Small
7	Shaw	7-Oct	Heather Grey	Small
8	Peyton-Gomez	Pending	White	Small
9	Lazar	14-Oct	White	Small
10	Chen	5-Oct	Dark Red	Medium
11	Kelly	11-Oct	Dark Red	Medium
12	Means	5-Oct	Dark Red	Medium
13	Bell	11-Oct	Dark Red	Medium
14	Albee	13-Oct	Heather Grey	Medium
15	Kelly	11-Oct	Heather Grey	Medium
16	Benson	11-Oct	White	Medium
17	Del Toro	13-Oct	White	Medium
18	Panarello	15-Oct	White	Medium
19	Weller	15-Oct	White	Medium
20	MacDonald	Pending	Dark Red	Large
21	Ackerman	1-Oct	Heather Grey	Large
22	Weller	5-Oct	Heather Grey	Large
23	Olivera	1-Oct	White	Large
24	Yuen	5-Oct	White	Large
25	Richards	4-Oct	Dark Red	X-Large

2. Select the **Data** tab, then locate the **Outline** group.
3. Click the **Subtotal** command to open the Subtotal dialog box.

4. In the **At each change in** field, select the column you want to use to outline your worksheet. In this example, we'll choose T-Shirt Size.
5. In the **Use function** field, choose from the list of functions that are available for subtotaling. We'll use the COUNT function to tally the number of each size.
6. Select the **column** you want the subtotal to appear in. We'll choose the T-Shirt Size column.
7. Click **OK**.

8. The contents of your worksheet will be outlined. Each T-shirt size will be placed in its own group, and the subtotal (count, in this case) will be listed below each group.

		C	D	E	F
	1	**Last Name**	**Payment**	**T-Shirt Color**	**T-Shirt Size**
	2	Yaron	7-Oct	Dark Red	Small
	3	Naser	14-Oct	Dark Red	Small
	4	Ellison	Pending	Dark Red	Small
	5	White	7-Oct	Heather Grey	Small
	6	Reynolds	7-Oct	Heather Grey	Small
	7	Shaw	7-Oct	Heather Grey	Small
	8	Peyton-Gomez	Pending	White	Small
	9	Lazar	14-Oct	White	Small
	10			**Small Count**	8
	11	Chen	5-Oct	Dark Red	Medium
	12	Kelly	11-Oct	Dark Red	Medium
	13	Means	5-Oct	Dark Red	Medium
	14	Bell	11-Oct	Dark Red	Medium
	15	Albee	13-Oct	Heather Grey	Medium
	16	Kelly	11-Oct	Heather Grey	Medium
	17	Benson	11-Oct	White	Medium
	18	Del Toro	13-Oct	White	Medium
	19	Panarello	15-Oct	White	Medium
	20	Weller	15-Oct	White	Medium
	21			**Medium Count**	10

Showing and hiding data

To show or hide a group:

1. Click the minus sign—also known as the **Hide Detail** symbol—to collapse the group.

		C	D	E	F
	1	**Last Name**	**Payment**	**T-Shirt Color**	**T-Shirt Size**
	8	Peyton-Gomez	Pending	White	Small
	9	Lazar	14-Oct	White	Small
	10			**Small Count**	8
	11	Chen	5-Oct	Dark Red	Medium
	12	Kelly	11-Oct	Dark Red	Medium
	13	Means	5-Oct	Dark Red	Medium
	14	Bell	11-Oct	Dark Red	Medium
	15	Albee	13-Oct	Heather Grey	Medium
	16	Kelly	11-Oct	Heather Grey	Medium
	17	Benson	11-Oct	White	Medium
	18	Del Toro	13-Oct	White	Medium
	19	Panarello	15-Oct	White	Medium
	20	Weller	15-Oct	White	Medium
	21			**Medium Count**	10
	22	MacDonald	Pending	Dark Red	Large
	23	Ackerman	1-Oct	Heather Grey	Large
	24	Weller	5-Oct	Heather Grey	Large
	25	Olivera	1-Oct	White	Large
	26	Yuen	5-Oct	White	Large
	27			**Large Count**	5

2. Click the plus sign—also known as the **Show Detail** symbol—to expand the group again.

1 2 3		C	D	E	F
	1	**Last Name**	**Payment**	**T-Shirt Color**	**T-Shirt Size**
	8	Peyton-Gomez	Pending	White	Small
	9	Lazar	14-Oct	White	Small
	10			**Small Count**	8
	21			**Medium Count**	10
	22	MacDonald	Pending	Dark Red	Large
	23	Ackerman	1-Oct	Heather Grey	Large
	24	Weller	5-Oct	Heather Grey	Large
	25	Olivera	1-Oct	White	Large
	26	Yuen	5-Oct	White	Large
	27			**Large Count**	5
	28	Richards	4-Oct	Dark Red	X-Large
	29	Nichols	6-Oct	Dark Red	X-Large
	30	Hanlon	4-Oct	Heather Grey	X-Large
	31	Flores	6-Oct	White	X-Large
	32			**X-Large Count**	4
	33			**Grand Count**	27

You can also use the ⊞ Show Detail or ⊟ Hide Detail commands on the **Data** tab in the Outline group. Select a cell in the group you want to show or hide, then click the appropriate command.

To view groups by level:

The groups in your outline, based on their hierarchy, are placed on different levels. You can quickly display as little or as much information as you want by clicking the level symbols 1 2 3 to the left of your worksheet. In this example, we will view levels in descending order, starting with the entire worksheet on display, then finishing with the grand total. While this example contains only three levels, Excel can accommodate up to eight.

1. Click the **highest level** (level **3** in this example) to view and expand all of your groups. Viewing groups at the highest level will display the entirety of your worksheet.

		C	D	E	F
	1	Last Name	Payment	T-Shirt Color	T-Shirt Size
	2	Yaron	7-Oct	Dark Red	Small
	3	Naser	14-Oct	Dark Red	Small
	4	Ellison	Pending	Dark Red	Small
	5	White	7-Oct	Heather Grey	Small
	6	Reynolds	7-Oct	Heather Grey	Small
	7	Shaw	7-Oct	Heather Grey	Small
	8	Peyton-Gomez	Pending	White	Small
	9	Lazar	14-Oct	White	Small
	10			Small Count	8
	11	Chen	5-Oct	Dark Red	Medium
	12	Kelly	11-Oct	Dark Red	Medium
	13	Means	5-Oct	Dark Red	Medium
	14	Bell	11-Oct	Dark Red	Medium
	15	Albee	13-Oct	Heather Grey	Medium
	16	Kelly	11-Oct	Heather Grey	Medium
	17	Benson	11-Oct	White	Medium
	18	Del Toro	13-Oct	White	Medium
	19	Panarello	15-Oct	White	Medium
	20	Weller	15-Oct	White	Medium
	21			Medium Count	10
	22	MacDonald	Pending	Dark Red	Large
	23	Ackerman	1-Oct	Heather Grey	Large
	24	Weller	5-Oct	Heather Grey	Large

2. Click the **next level** (level **2** in this example) to hide the detail of the previous level. In this example, level 2 contains each subtotal.

		C	D	E	F
	1	Last Name	Payment	T-Shirt Color	T-Shirt Size
	10			Small Count	8
	21			Medium Count	10
	27			Large Count	5
	32			X-Large Count	4
	33			Grand Count	27
	34				

3. Click the **lowest level** (level **1** in this example) to display the lowest level of detail. In this example, level 1 contains only the grand total.

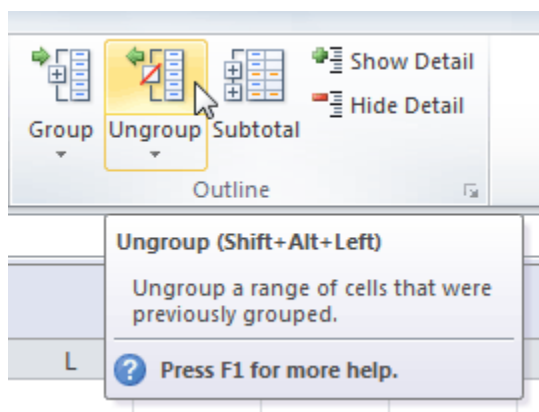|		C	D	E	F
	1	Last Name	Payment	T-Shirt Color	T-Shirt Size
	33			Grand Count	27
	34				
	35				

Removing groups and subtotaling

To ungroup data:

1. Select the rows or columns you want to ungroup. In this example, we'll ungroup size Small.

		C	D	E	F
	1	**Last Name**	**Payment**	**T-Shirt Color**	**T-Shirt Size**
	2	Yaron	7-Oct	Dark Red	Small
	3	Naser	14-Oct	Dark Red	Small
	4	Ellison	Pending	Dark Red	Small
	5	White	7-Oct	Heather Grey	Small
	6	Reynolds	7-Oct	Heather Grey	Small
	7	Shaw	7-Oct	Heather Grey	Small
	8	Peyton-Gomez	Pending	White	Small
	9	Lazar	14-Oct	White	Small
	10			**Small Count**	8
	11	Chen	5-Oct	Dark Red	Medium
	12	Kelly	11-Oct	Dark Red	Medium
	13	Means	5-Oct	Dark Red	Medium
	14	Bell	11-Oct	Dark Red	Medium
	15	Albee	13-Oct	Heather Grey	Medium
	16	Kelly	11-Oct	Heather Grey	Medium
	17	Benson	11-Oct	White	Medium

2. From the **Data** tab, click the **Ungroup** command. The range of cells will be ungrouped.

Group   Ungroup   Subtotal   Show Detail   Hide Detail

Outline

Ungroup (Shift+Alt+Left)

Ungroup a range of cells that were previously grouped.

? Press F1 for more help.

To ungroup all of the groups in your outline, open the drop-down menu under the **Ungroup** command, then choose **Clear Outline**.

Ungroup and **Clear Outline** will not remove subtotaling from your worksheet. Summary or subtotal data will stay in place and continue to function until you remove it.

To ungroup data and remove subtotaling:

1. From the **Data** tab, click the **Subtotal** command to open the Subtotal dialog box.
2. Click **Remove All**.
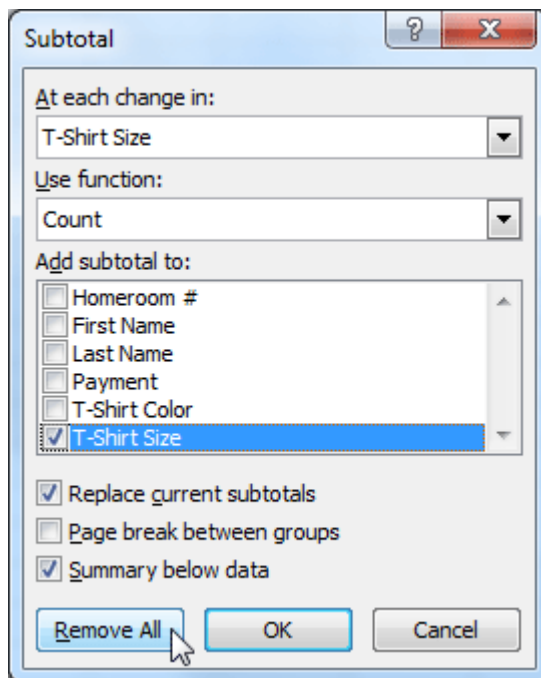
3. All data will be ungrouped, and subtotals will be removed.

	C	D	E	F
	Last Name	**Payment**	**T-Shirt Color**	**T-Shirt Size**
1				
4	Ellison	Pending	Dark Red	Small
5	White	7-Oct	Heather Grey	Small
6	Reynolds	7-Oct	Heather Grey	Small
7	Shaw	7-Oct	Heather Grey	Small
8	Peyton-Gomez	Pending	White	Small
9	Lazar	14-Oct	White	Small
10	Chen	5-Oct	Dark Red	Medium
11	Kelly	11-Oct	Dark Red	Medium
12	Means	5-Oct	Dark Red	Medium
13	Bell	11-Oct	Dark Red	Medium
14	Albee	13-Oct	Heather Grey	Medium
15	Kelly	11-Oct	Heather Grey	Medium
16	Benson	11-Oct	White	Medium
17	Del Toro	13-Oct	White	Medium
18	Panarello	15-Oct	White	Medium
19	Weller	15-Oct	White	Medium
20	MacDonald	Pending	Dark Red	Large
21	Ackerman	1-Oct	Heather Grey	Large
22	Weller	5-Oct	Heather Grey	Large
23	Olivera	1-Oct	White	Large
24	Yuen	5-Oct	White	Large
25	Richards	4-Oct	Dark Red	X-Large

Creating your own groups

The **Group** command allows you to group any range of cells—either columns or rows. It does not calculate a subtotal or rely on your data being sorted. This gives you the ability to show or hide any part of your worksheet and display only the information you need.

To create and control your own group:

In this example, we will prepare a list of T-shirt colors and sizes that need to be distributed to each homeroom. Some of the data in the worksheet is not relevant to the distribution of T-shirts; however, instead of deleting it, we'll group it, then temporarily hide it from view.

1. Select the range of cells you want to group. In this example, we will group the First Name, Last Name, and Payment columns.

	B	C	D	E
1	**First Name**	**Last Name**	**Payment**	**T-Shirt Color**
2	Esther	Yaron	7-Oct	Dark Red
3	Anisa	Naser	14-Oct	Dark Red
4	Brigid	Ellison	Pending	Dark Red
5	Melissa	White	7-Oct	Heather Grey
6	Malik	Reynolds	7-Oct	Heather Grey
7	Windy	Shaw	7-Oct	Heather Grey
8	Christopher	Peyton-Gomez	Pending	White
9	Michael	Lazar	14-Oct	White
10	Christiana	Chen	5-Oct	Dark Red
11	Sidney	Kelly	11-Oct	Dark Red

2. From the **Data** tab, click the **Group** command.
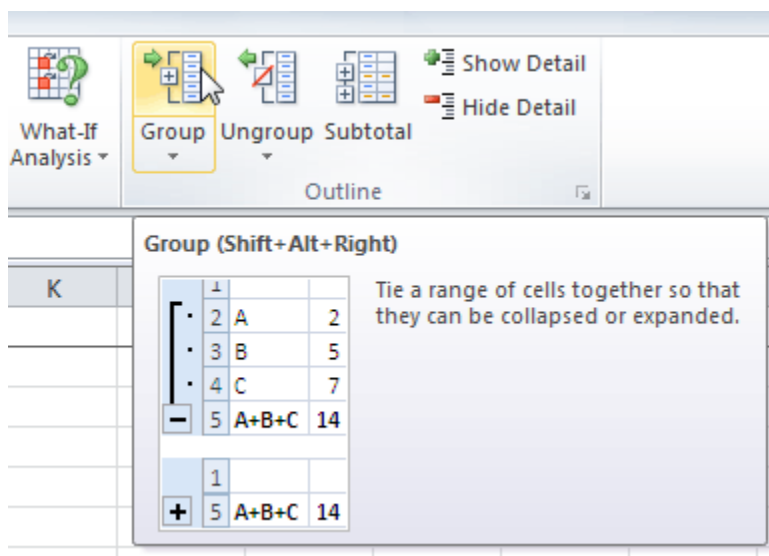
3. Excel will group the selected columns or rows.

	B	C	D	E
1	**First Name**	**Last Name**	**Payment**	**T-Shirt Color**
2	Esther	Yaron	7-Oct	Dark Red
3	Anisa	Naser	14-Oct	Dark Red
4	Brigid	Ellison	Pending	Dark Red
5	Melissa	White	7-Oct	Heather Grey
6	Malik	Reynolds	7-Oct	Heather Grey
7	Windy	Shaw	7-Oct	Heather Grey
8	Christopher	Peyton-Gomez	Pending	White
9	Michael	Lazar	14-Oct	White
10	Christiana	Chen	5-Oct	Dark Red
11	Sidney	Kelly	11-Oct	Dark Red

4. Click the minus sign—also known as the **Hide Detail** symbol—to hide the group.
5. The group will be hidden from view.

	A	E	F
	Homeroom #	T-Shirt Color	T-Shirt Size
1	Homeroom #	T-Shirt Color	T-Shirt Size
2	105	Dark Red	Small
3	135	Dark Red	Small
4	220-A	Dark Red	Small
5	105	Heather Grey	Small
6	220-B	Heather Grey	Small
7	220-B	Heather Grey	Small
8	220-A	White	Small
9	220-B	White	Small
10	105	Dark Red	Medium
11	105	Dark Red	Medium

Click the plus sign—also known as the **Show Detail** symbol—to show the group again.

Challenge!

1. Open an **existing Excel 2010 workbook**. If you want, you can use **Excel2010_Outlining_Practice** file from moodle
2. Outline your worksheet using the **Subtotal** command. If you are using the example, outline by T-shirt size.
3. Display the **first level** of groups in your outline.
4. Display the **highest level** to view your entire worksheet again.
5. Create your own **group of rows or columns**, then hide the group from view.
6. **Ungroup** any range of data.
7. **Remove** subtotaling from your worksheet.