

## **Technical Institute of Administration**

**Business Administration** 

# 9. Microsoft Excel - Working with Data - Groups and Subtotals

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## 9. Working with Data - Groups and Subtotals

### 9.1.Introduction

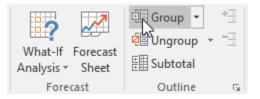
Worksheets with a lot of content can sometimes feel overwhelming and even become difficult to read. Fortunately, Excel can organize data into **groups**, allowing you to easily **show** and **hide** different sections of your worksheet. You can also summarize different groups using the **Subtotal** command and create an **outline** for your worksheet.

#### 9.2.To group rows or columns:

1. Select the **rows** or **columns** you want to group. In this example, we'll select columns **B**, **C**, and **D**.

	А	В	С	D 🖡	E
1	Homeroom #	First Name	Last Name	<b>Payment Method</b>	T-Shirt Size
2	105	Melissa	White	Debit Card	Small
3	105	Esther	Yaron	Pending	Small
4	135	Anisa	Naser	Check Bounced	Small
5	220-A	Brigid	Ellison	Cash	Small
6	220-A	Christopher	Peyton-Gomez	Check	Small
7	220-B	Michael	Lazar	Cash	Small
8	220-В	Malik	Reynolds	Cash	Small
9	220-B	Wendy	Shaw	Cash	Small
10	105	Nathan	Albee	Check	Medium

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



3. The selected rows or columns will be **grouped**. In our example, columns **B**, **C**, and **D** are grouped.

1					_
	А	В	С	D	E
1	Homeroom #	First Name	Last Name	<b>Payment Method</b>	T-Shirt Size
2	105	Melissa	White	Debit Card	Small
3	105	Esther	Yaron	Pending	Small
4	135	Anisa	Naser	Check Bounced	Small
5	220-A	Brigid	Ellison	Cash	Small
6	220-A	Christopher	Peyton-Gomez	Check	Small
7	220-B	Michael	Lazar	Cash	Small
8	220-В	Malik	Reynolds	Cash	Small
9	220-B	Wendy	Shaw	Cash	Small
10	105	Nathan	Albee	Check	Medium

To ungroup data, select the grouped rows or columns, then click the Ungroup command.

	🗐 Group 🔹 + 🗄
What-If Forecast	🖉 Ungroup 🝷 📑
Analysis • Sheet	E∰Subtotal
Forecast	Outline 🗔

## 9.3.To hide and show groups:

1. To hide a group, click the minus sign, also known as the Hide Detail button.

1					-
	А	В	С	D	E
1	Homeroom #	First Name	Last Name	<b>Payment Method</b>	T-Shirt Size
2	105	Melissa	White	Debit Card	Small
3	105	Esther	Yaron	Pending	Small
4	135	Anisa	Naser	Check Bounced	Small
5	220-A	Brigid	Ellison	Cash	Small
6	220-A	Christopher	Peyton-Gomez	Check	Small
7	220-В	Michael	Lazar	Cash	Small
8	220-В	Malik	Reynolds	Cash	Small
9	220-В	Wendy	Shaw	Cash	Small
10	105	Nathan	Albee	Check	Medium

2. The group will be **hidden**. To show a hidden group, click the plus sign, also known as the **Show Detail** button.

1								
	А	E	F	G				
1	Homeroom #	T-Shirt Size						
2	105	Small						
3	105	Small						
4	135	Small						
5	220-A	Small						
6	220-A	Small						
7	220-B	Small						
8	220-B	Small						
9	220-B	Small						
10	105	Medium						

## 9.4.Creating subtotals

The **Subtotal** command allows you to automatically **create groups** and use common functions like SUM, COUNT, and AVERAGE to help **summarize** your data. For example, the **Subtotal** command could help to calculate the cost of office supplies by type from a large inventory order. It will create a hierarchy of groups, known as an **outline**, to help organize your worksheet.

#### 9.4.1. To create a subtotal:

In our example, we'll use the Subtotal command with a T-shirt order form to determine how many T-shirts were ordered in each size (Small, Medium, Large, and X-Large). This will create an **outline** for our worksheet with a **group** for each T-shirt size and then **count** the total number of shirts in each group.

1. First, **sort** your worksheet by the data you want to subtotal. In this example, we'll create a subtotal for each T-shirt size, so our worksheet has been sorted by T-shirt size from smallest to largest.

	А	В	С	D	E
1	Homeroom #	First Name	Last Name	<b>Payment Method</b>	T-Shirt Size
2	105	Melissa	White	Debit Card	Small
3	105	Esther	Yaron	Pending	Small
4	135	Anisa	Naser	Check Bounced	Small
5	220-A	Brigid	Ellison	Cash	Small
6	220-A	Christopher	Peyton-Gomez	Check	Small
7	220-В	Michael	Lazar	Cash	Small
8	220-В	Malik	Reynolds	Cash	Small
9	220-В	Wendy	Shaw	Cash	Small
10	105	Nathan	Albee	Check	Medium
11	105	Christiana	Chen	Check Bounced	Medium
12	105	Sidney	Kelly	Check	Medium
13	110	Matt	Benson	Money Order	Medium
14	110	Gabriel	Del Toro	Cash	Medium

2. Select the **Data** tab, then click the **Subtotal** command.



- 3. The **Subtotal** dialog box will appear. Click the drop-down arrow for the **At each change in:** field to select the **column** you want to subtotal. In our example, we'll select **T-Shirt Size**.
- 4. Click the drop-down arrow for the **Use function:** field to select the **function** you want to use. In our example, we'll select **COUNT** to count the number of shirts ordered in each size.

Subtotal	?	$\times$
<u>A</u> t each change in:		
T-Shirt Size		$\sim$
Use function:		
Count		$\sim$
Sum		~
Count N		
Average 🗟		
Max		
Min		
Product		×

5. In the Add subtotal to: field, select the column where you want the calculated subtotal to appear. In our example, we'll select T-Shirt Size. When you're satisfied with your selections, click OK.

Subtotal	?	$\times$
<u>A</u> t each change in:		
T-Shirt Size		$\sim$
Use function:		
Count		~
A <u>d</u> d subtotal to:		
Homeroom # First Name Last Name		^
Payment Method		
T-Shirt Size		~
✓ Replace <u>c</u> urrent subtotals ☐ <u>P</u> age break between groups ✓ <u>S</u> ummary below data		
Remove All OK	Ca	ancel

6. The worksheet will be **outlined** into **groups**, and the **subtotal** will be listed below each group. In our example, the data is now grouped by T-shirt size, and the number of shirts ordered in that size appears below each group.

1 2	3		А	В	С	D	E
		1	Homeroom #	First Name	Last Name	Payment Method	T-Shirt Size
- [	•	2	105	Melissa	White	Debit Card	Small
		3	105	Esther	Yaron	Pending	Small
		4	135	Anisa	Naser	Check Bounced	Small
		5	220-A	Brigid	Ellison	Cash	Small
		6	220-A	Christopher	Peyton-Gomez	Check	Small
		7	220-В	Michael	Lazar	Cash	Small
		8	220-В	Malik	Reynolds	Cash	Small
		9	220-В	Wendy	Shaw	Cash	Small
-		10				Small Count	8
Γ		11	105	Nathan	Albee	Check	Medium
		12	105	Christiana	Chen	Check Bounced	Medium
		13	105	Sidney	Kelly	Check	Medium
		14	110	Matt	Benson	Money Order	Medium
		15	110	Gabriel	Del Toro	Cash	Medium
		16	135	James	Panarello	Check	Medium
		17	135	Chantal	Weller	Debit Card	Medium
		18	220-A	Chevonne	Means	Money Order	Medium
		19	220-В	Samantha	Bell	Check	Medium
		20	220-В	Avery	Kelly	Debit Card	Medium
-		21				Medium Count	10

## 9.4.2. To view groups by level:

When you create subtotals, your worksheet it is divided into different **levels**. You can switch between these levels to quickly control how much information is displayed in the worksheet by clicking the **Level** buttons to the left of the worksheet. In our example, we'll switch between all three levels in our outline. While this example contains only three levels, Excel can accommodate up to eight.

1. Click the **lowest level** to display the least detail. In our example, we'll select **level 1**, which contains only the **grand count**, or total number of T-shirts ordered.

1	2 3		А	В	С	D	E
h	5	1	Homeroom #	First Name	Last Name	<b>Payment Method</b>	T-Shirt Size
+		33				Grand Count	27
		34					
		35					

2. Click the **next level** to expand the detail. In our example, we'll select **level 2**, which contains each subtotal row but hides all other data from the worksheet.

1 2 3		А	В	С	D	E
6	1	Homeroom #	First Name	Last Name	<b>Payment Method</b>	T-Shirt Size
+	10				Small Count	8
+	21				Medium Count	10
+	27				Large Count	5
+	32				X-Large Count	4
-	33				Grand Count	27

3. Click the **highest level** to view and expand all of your worksheet data. In our example, we'll select **level 3**.

1	2 3		А	В	С	D	E
	-	1	Homeroom #	First Name	Last Name	<b>Payment Method</b>	<b>T-Shirt Size</b>
Γ	[ ·	2	105	Melissa	White	Debit Card	Small
		3	105	Esther	Yaron	Pending	Small
		4	135	Anisa	Naser	Check Bounced	Small
		5	220-A	Brigid	Ellison	Cash	Small
		6	220-A	Christopher	Peyton-Gomez	Check	Small
		7	220-B	Michael	Lazar	Cash	Small
		8	220-В	Malik	Reynolds	Cash	Small
		9	220-В	Wendy	Shaw	Cash	Small
	-	10				Small Count	8
	[ · ]	11	105	Nathan	Albee	Check	Medium
		12	105	Christiana	Chen	Check Bounced	Medium
		13	105	Sidney	Kelly	Check	Medium

You can also use the **Show** and **Hide Detail** buttons to show and hide the groups within the outline.

1	2 3		А	В	С	D	E	
		1	Homeroom #	First Name	Last Name	<b>Payment Method</b>	T-Shirt Siz	ze
Γ	+	10				Small Count		8
	+	21				Medium Count		10
		22	105	Derek	MacDonald	Cash	Large	
		23	110	Kris	Ackerman	Money Order	Large	
		24	110	Regina	Olivera	Pending	Large	
		25	135	Jordan	Weller	Money Order	Large	
		26	135	Alex	Yuen	Wrong Amount	Large	
		27				Large Count		5
		32				X-Large Count		4
-		33				Grand Count		27

#### 9.4.3. To remove subtotals:

Sometimes you may not want to keep subtotals in your worksheet, especially if you want to reorganize data in different ways. If you no longer want to use subtotaling, you'll need **remove it** from your worksheet.

1. Select the **Data** tab, then click the **Subtotal** command.

	년 Group 🔹	+ <u>=</u>
What-If Forecast	🙋 Ungroup 🔹	
Analysis - Sheet	E Subtotal	
Forecast	Outline	- Fai

2. The Subtotal dialog box will appear. Click Remove All.

Subtotal	?	×
<u>A</u> t each change in:		
T-Shirt Size		$\sim$
Use function:		
Count		$\sim$
A <u>d</u> d subtotal to:		
Homeroom # First Name		^
Payment Method		
✓ T-Shirt Size		~
<ul> <li>Replace <u>c</u>urrent subtotals</li> <li><u>P</u>age break between groups</li> <li><u>S</u>ummary below data</li> </ul>		
Remove All	Ca	incel

3. All worksheet data will be **ungrouped**, and the subtotals will be **removed**.

To remove all groups without deleting the subtotals, click the **Ungroup** command drop-down arrow, then choose **Clear Outline**.

