MICROSOFT EXCEL



Groups and Subtotals

Contents

2

Introduction To group rows or columns To hide and show groups Creating Subtotals To create a subtotal To view groups by level To remove subtotals Practice

3 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.

Grouping rows and columns

- Select the rows or columns you want to group. In this example, we'll select columns B, C, and D.
- Select the Data tab on the Ribbon, then click the Group command.

	A	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		🗐 Group 🔻
5	220-A	Brigid	Ellison	Cash	Small		2 Ungroup
6	220-A	Christopher	Peyton-Gomez	Check	Small	What-If Forecast	🔠 Subtotal
7	220-B	Michael	Lazar	Cash	Small	Forecast	Outline
8	220-B	Malik	Reynolds	Cash	Small	Torcease	Outime
9	220-B	Wendy	Shaw	Cash	Small		
1	105	Nathan	Albee	Check	Medium		

5 Grouping rows and columns

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

1		-			-
2					
	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-B	Michael	Lazar	Cash	Small
8	220-B	Malik	Reynolds	Cash	Small
9	220-В	Wendy	Shaw	Cash	Small
10	105	Nathan	Albee	Check	Medium

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

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hat-If Forecast alysis ▼ Sheet	Ū. Ungroup ▼ E Subtotal	-
Forecast	Outline	Fa

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6 Hide and show groups

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

1	intenne 🖌 💷 en constituint de la const	· .			-
	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-B	Michael	Lazar	Cash	Small
8	220-B	Malik	Reynolds	Cash	Small
9	220-B	Wendy	Shaw	Cash	Small
10	105	Nathan	Albee	Check	Medium

7 Hide and show groups

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

1		+		
2		~		
	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		

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.

Your data must be correctly **sorted** before using the Subtotal command.

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.

. 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.

	A	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	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.
- 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.



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

group.

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

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-B	Michael	Lazar	Cash	Small
	8	220-B	Malik	Reynolds	Cash	Small
	9	220-B	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
	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

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.

. 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
63	1	Homeroom #	First Name	Last Name	Payment Method	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	C	D	E
	63	1	Homeroom #	First Name	Last Name	Payment Method	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	з		А	В	С	D	E
		63	1	Homeroom #	First Name	Last Name	Payment Method	T-Shirt Size
ſ			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-B	Malik	Reynolds	Cash	Small
			9	220-B	Wendy	Shaw	Cash	Small
	-		10				Small Count	8
	ſ		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	Payment Method	T-Shirt Size
ſ	+		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
	+	5	32				X-Large Count	4
-]		33				Grand Count	27

18 Remove subtotals

- Select the Data tab, then click the Subtotal command.
- The Subtotal dialog box will appear. Click Remove All.
- 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**.

	What-If Forecast Analysis - Sheet Forecast	Image: Subtotal Outline					
[Subtotal	? ×					
	At each change in: T-Shirt Size						
	Count						
	Add subtotal to: Homeroom # First Name Last Name Payment Method T-Shirt Size						
	Replace <u>c</u> urrent subtotals Page break between groups <u>S</u> ummary below data <u>R</u> emove All OK Cancel						
L	45						
	What-If Forecast Analysis - Sheet Forecast	© Group → + © Ungroup → - © Ungroup <u>C</u> lear Outline					

19 Practice

- Open our practice workbook.
- Click on the Customers tab in the bottom-left of the workbook.
- Sort the workbook by Grade from smallest to largest.
- Use the Subtotal command to group at each change in Grade. Use the SUM function and add subtotals to Amount Raised.
- Select Level 2 so that you only see the subtotals and grand total.

20 Solution

1	2	3		А	В	С	D
			1	First Name	Last Name	Grade	Amount Raised
Γ	+		8			8 Total	\$311.00
	+		15			9 Total	\$583.00
	+		22			10 Total	\$432.00
	+		29			11 Total	\$345.00
	+		35			12 Total	\$240.00
-]		36			Grand Total	\$1,911.00

