1.2.3 Filtering, Formatting, and Freezing

Now we've taken an initial look at the data to determine how many rows and columns are in the worksheet, what data types we're working with, and whether we need to convert the data to make it readable. The next step is to organize the data so that it can be more easily understood and, therefore, generate insights that will help Louise's project. We'll accomplish this task by using filters and formatting, and by freezing specific columns and rows.

Now we can see that our data is stored in columns A through N and rows 1 through 4115—that's a lot of data! Let's break down some of the information we're working with:

- The Goal column tells us how much money each campaign will need to succeed.
- The Pledged column tells us how much each campaign actually made.
- The Outcomes column tells us if the campaign met its goal.
- The Country column lists the country in which the campaign was started.

But even with this data breakdown, the current worksheet is still a little overwhelming, right? Let's make it more user-friendly by applying filters to the columns. **Filters** allow us to display only the specific data that we want to focus on.

Let's focus first on the money raised by various campaigns. Louise estimates that her play will cost $12,000, so we can use data from the Pledged column to research projects with a similar monetary goal. We'll use filters to apply this customization.

Filter the Data

Filters are commonly used in Excel because they make the data far more user-friendly. For instance, a dataset can be filtered to omit data we aren't interested in, or to single out specific data we want to learn more about. It helps negate some of the extra "noise"—information that is unnecessary to a project.

Follow these steps to add filters to your Excel worksheet. Let's add a filter to the Goal column first.

1. Begin by clicking the letter **D** above the goal column to select the entire column.
2. While the column is still selected, click the Data tab at the top of the screen.
3. Find the Filter button on the ribbon and then click it.

Once these steps are completed, a down arrow will appear next to the Goal header on the workbook; this will reveal the sorting and filtering menu.

Now we easily sort or filter the data as we see fit. Let's test this tool by sorting the pledged amount from highest to lowest.

1. Click the down arrow on the Pledged column (column E) to reveal the Filter menu.
2. Click "Descending," and then close the window. **Note:** "Ascending" sorts values from lowest to highest; "Descending" sorts values from highest to lowest, which is what we want. In some versions of Excel, you will see "Sort Largest to Smallest" instead of "Descending" and "Sort Smallest to Largest" instead of "Ascending."

NOTE

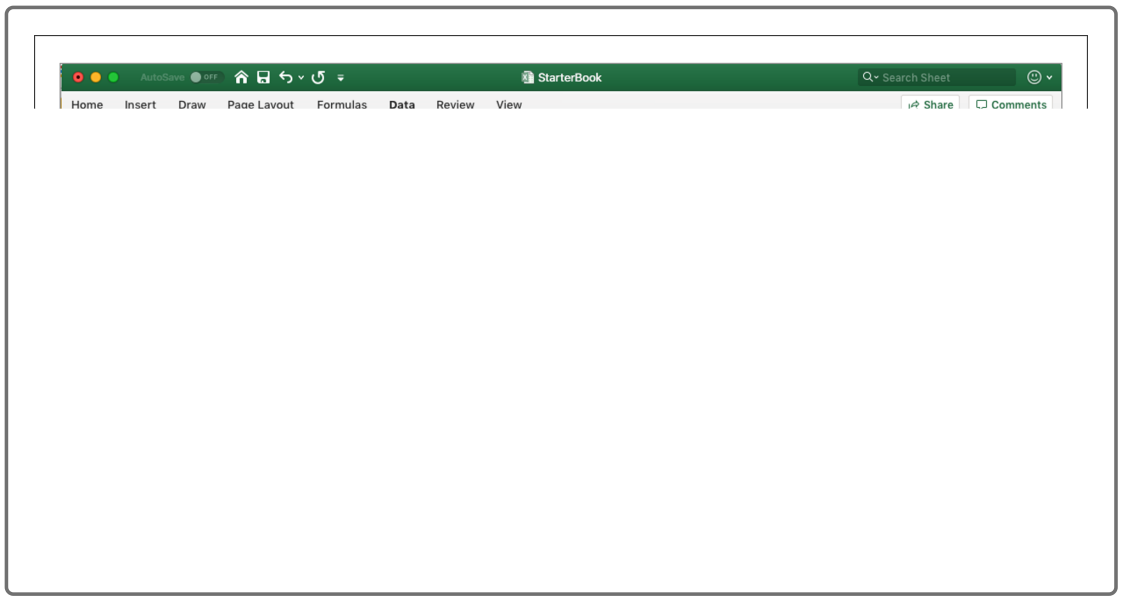
> Your version of Excel may produce a dialogue window with the following message:
>
> "Microsoft Excel found data next to your selection. Since you have not selected this data, it will not be sorted. What do you want to do?" If you receive this message, select "Expand the selection" before continuing.

This will sort the Pledged column as well as all of the data tied to it. We can verify this by looking at the data contained in column A: the ID numbers are no longer in order.

Retake

Now spend some time practicing how to format and sort different columns in your worksheet. Have fun with this! For example, try to find the highest goal, or combine filters by looking for the highest successful goal.

Remember, when you sort and filter multiple columns, it's easy to lose track of what's been sorted and filtered. Excel's subtle (but helpful) way of telling us which columns are sorted is to change the down arrow icon to a filter or arrow icon, depending on how the data was adjusted.



If you get lost in the data, that's okay! Clearing the filters and starting over can be done in two quick steps. To reset all filters, do the following:

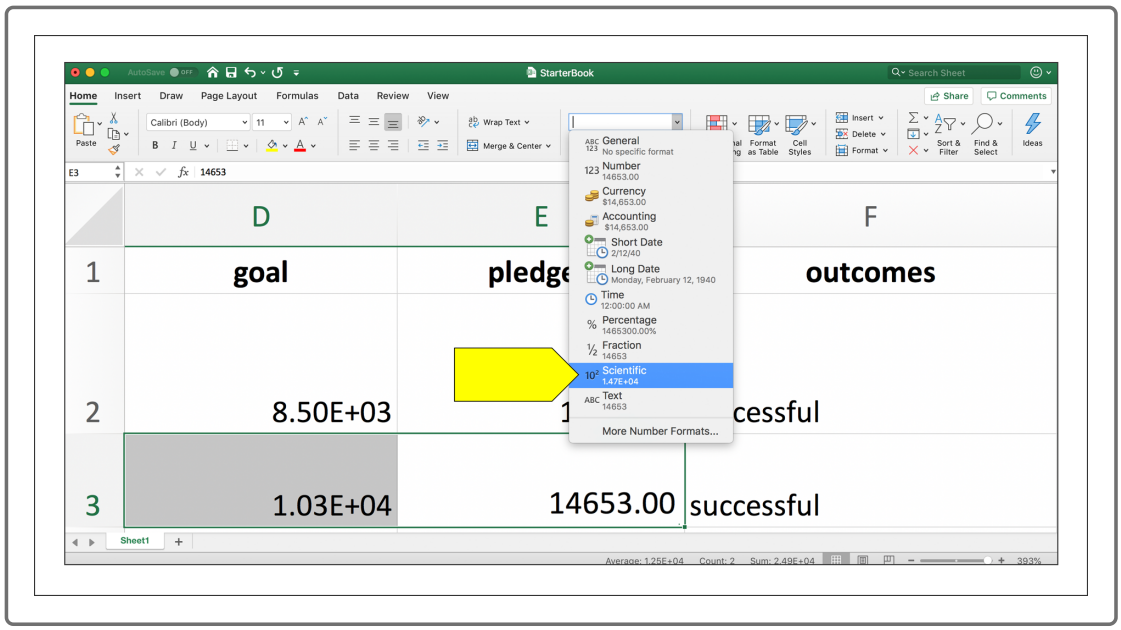
1. Click the "Sort & Filter" button at the top right of the Excel window.
2. Click Clear.

NOTE

> An alternate way to revert your data to its original setting is to use the **Undo** feature. The hotkeys to quickly Undo a recent change are command + z (macOS) or ctrl + z (Windows).

Format the Spreadsheet

Let's backtrack a bit. The Goal column was automatically sorted, but now some of the numbers in that column look odd. This is because the column width doesn't capture the entire number, so it has been shortened using **scientific notation**.



IMPORTANT

> **Scientific notation** is a method for displaying very large or very small numbers in a more compact way. Excel automatically adjusts those large or small numbers to fit within a column.
>
> For example, the number **3E+07** can also be displayed as **3x10^7^**. This is scientific notation for 30,000,000. This means that the number starts with a 3 and has an exponent of 7 (seven zeros).
>
> Note that if you are using a larger monitor, then the column may not be presented as scientific notation and is already in a normal numeric format.

You can automatically widen the column to hold all of the data by following these steps:

1. Place your cursor over the small line between columns D and E. The cursor should change in appearance to a vertical bar with an arrow pointing either left or right from the center.
2. Double-click to expand the column to fit the value with the most physical width.

You should now see the goal amounts arranged in order from highest to lowest. However, you might notice that when you scroll further down the sheet, it's difficult to determine what's in each column. Some of the data may not make much sense without a heading attached to it. The solution? Freeze the header.

Freeze and Unfreeze Rows, Columns, and Panes

Freezing is a feature of Excel that allows portions of a spreadsheet, such as a row or column, to be locked in place so that it is always displayed, no matter what part of the sheet we're looking at. This means that you don't need to commit column headers to memory; simply freeze them so that they are always displayed as you scroll through the sheet.

When a column and row are frozen together, they become a **pane**. Think of this as a window: the window can be opened and moved up and down or left and right, but the pane stays in place. The same principle applies here, as shown in the following image.

Watch the following video to learn how to use the freezing function in Excel. Choose the video that corresponds to your operating system.

macOS

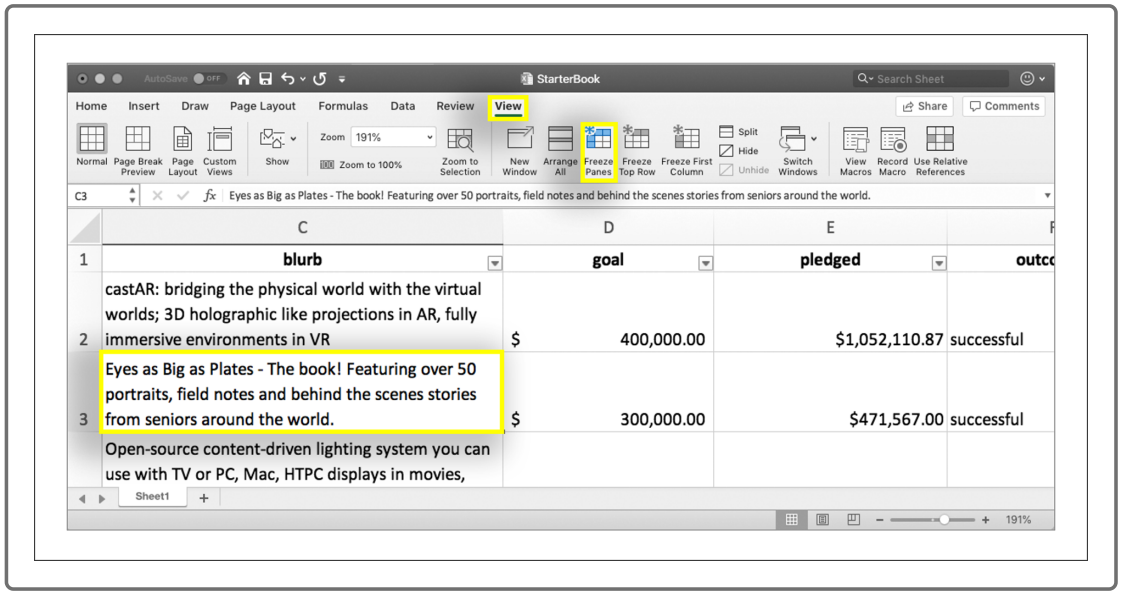
Windows

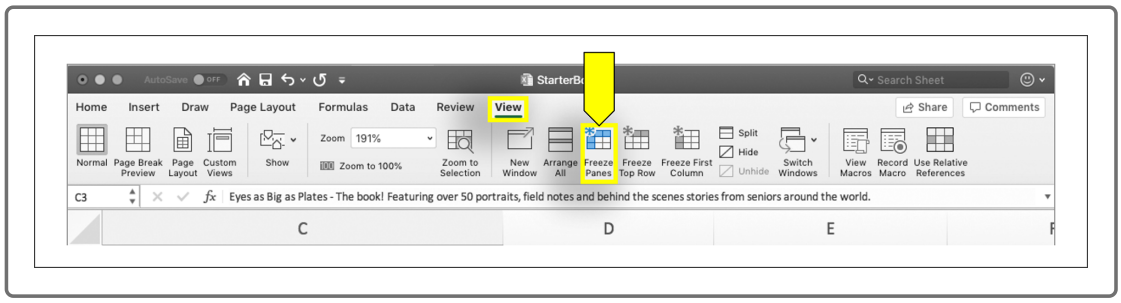
Now let's reset our view by unfreezing our panes. Click the Unfreeze Panes selection in the Freeze Panes drop down list while in the View tab, as shown in the video.

Say we want to set the name column and title row as a pane rather than freezing the first column and the top row. This is where the Freeze Panes

button comes into play. This button freezes a column and row simultaneously.

Let's try it. In the worksheet, select cell C3 and then click Freeze Panes in the View tab. The new pane is created based on the location of the selected cell, in this case, C3.





This tells Excel to freeze the column to the left of C3 and the row above C3. Now scroll through the data, horizontally and vertically. See how both the **ID** and **name** columns stay in place? To complete the pane, the header row is also frozen. Pretty useful, right?

SKILL DRILL

Create a pane with the first three columns and title row of the Excel worksheet. Remember that panes

can be reset with the Freeze and Unfreeze buttons.

IMPORTANT

> Remember to save your work periodically so that you don't lose it if the program crashes. Command+S (Mac) or CTRL+S (Windows) is a quick shortcut to save any work in progress.