

Spreadsheet Protection

In this chapter, we're going to learn about spreadsheet protection. We will learn how to lock cells and protect worksheets in order to restrict the kinds of things that a user can do on a given worksheet or within a given workbook. In a dashboard type of worksheet, using locked or unlocked cells helps users focus on what they should interact with instead of having to guess. These practices ensure a clear and consistent pattern, which means users can easily navigate the worksheet.

Practice Spreadsheet

Use this [workbook](#) for the chapter.

Create a Dashboard

First, you'll need to create a basic input and output workbook. (See **Figure 35.1**)

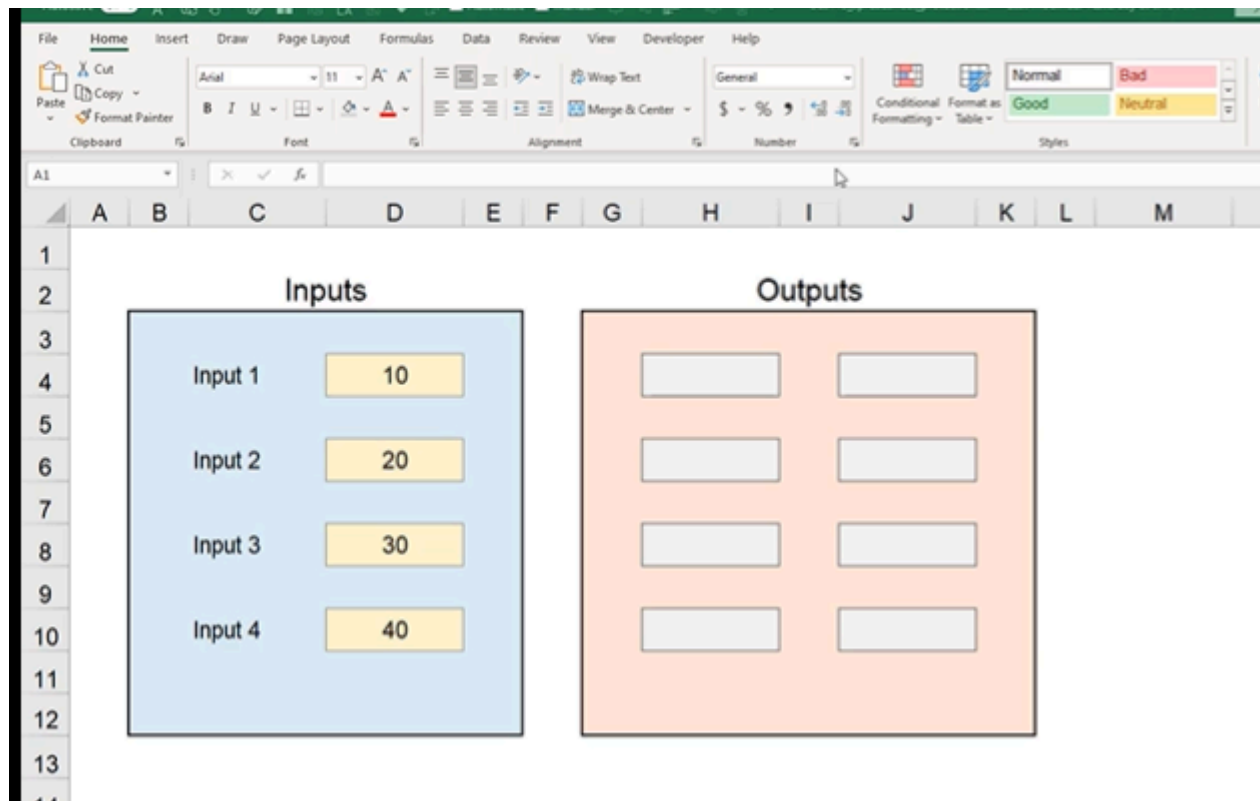


Figure 35.1

Next, we'll make a make-believe dashboard to see how these functions might work.

1. In Output 1, column **H**, multiply the first input by 20. The formula should read **=D4*20**.
2. Copy the formula into all of the other **H** column Output cells.
 - a. Use the **Paste** tool in the **Home** tab in the top right of the page. In the drop-down box under **Paste**, select **Use Format** so you're only pasting the function.
3. In Output 1, column **J**, take Output 1 from column **H** and multiply it by Input 1. The formula should read **=H4*D4**.
4. Copy the formula into all of the other **J** column Output cells.
 - a. Use the **Paste** tool in the **Home** tab in the top right of the page. In the drop-down box under **Paste**, select **Use Format** so you're only pasting the function. In the end, the sheet should contain all of the information represented in **Figure 35.2**.

The image shows an Excel spreadsheet with columns A through M and rows 1 through 17. It contains two main sections: 'Inputs' and 'Outputs'.

Inputs				Outputs			
Input 1	10			200	2000		
Input 2	20			400	8000		
Input 3	30			600	18000		
Input 4	40			800	32000		

Figure 35.2

Locking the Worksheet

Now that we have a functional dashboard, it's time to think about how we want the user to interact with it. In this example, we really only want them to change content in the Input cells, not the calculations in the Output cells. Let's look at protection options for this sheet and workbook:

1. Go to the Review Tab.
2. Go to the **Protect** section (see **Figure 35.3**). This section allows you to protect certain parts of this Excel sheet: the sheet, the workbook, and certain ranges.

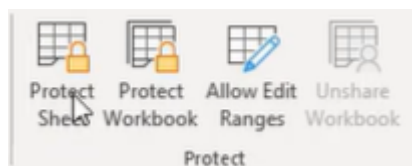


Figure 35.3

To begin, we'll work with Protect Sheet. (See **Figure 35.3**)

1. Select **Protect Sheet**. A popup box should appear titled **Protect Sheet**. (See **Figure 35.4**)

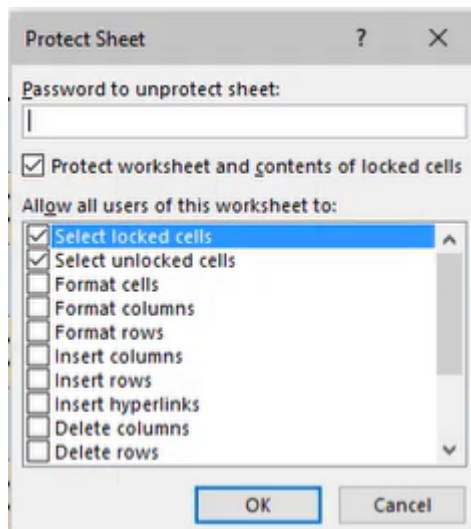


Figure 35.4

The sheet protection is automatically set to allow users to **Select Locked Cells** and **Select Unlocked Cells**. Locked and unlocked cells determine what a user can actually do. There are other features that will allow you to allow or disallow, so if you don't want users to be able to do anything except click on cells that are unlocked, you can uncheck the **Select Locked Cells** box. (See **Figure 35.5**)

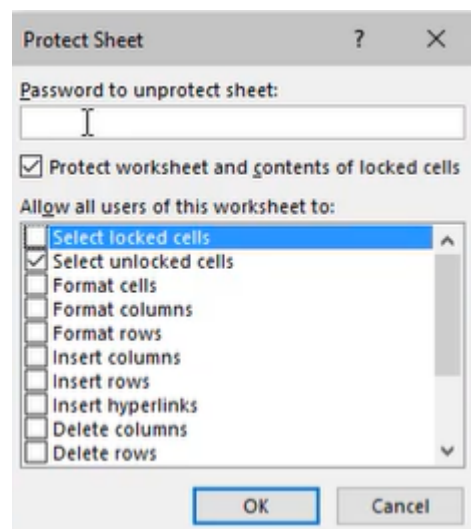


Figure 35.5

At the top of the Protect Sheet popup, there is a text-input cell titled **Password to Unprotect Sheet**. This allows you to set a password, but remember that it's important that you keep the password safe because there isn't any way to recover it if you forget it. Try adding a password to this sheet:

1. Type the password **1234** into the textbox titled **Password to Unprotect Sheet**. (See **Figure 35.5**)
2. Select **OK**.
3. Reenter the password **1234** in the textbox titled **Reenter Password to Proceed**. (See **Figure 35.6**)



Figure 35.6

4. Select **OK**.

The worksheet is now password protected and all of the cells are locked; you won't be able to change or even select any cells in the sheet until you reenter the password.

Unlocking the Worksheet

To unlock the sheet, select **Unprotect Sheet** and enter the password **1234**. (See **Figures 35.7** and **35.8**)

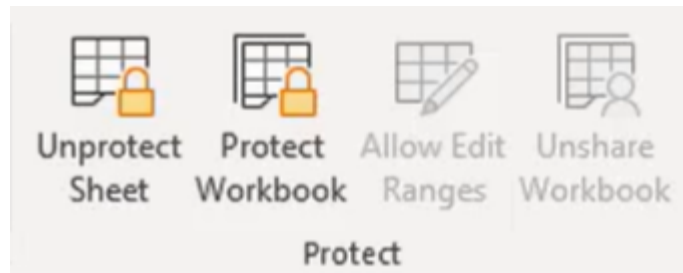


Figure 35.7

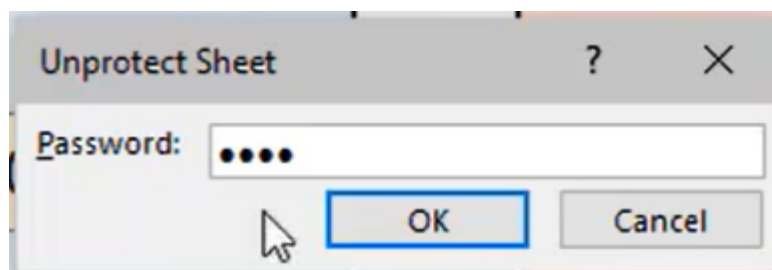


Figure 35.8

Note: In the future, we do **not** recommend that you use a password as it will make it difficult for others to check your work. The password feature is available, but for the BUS 115 class, you **should not** use it.

Locking Cells

You can select which cells you'd like the user to be able to interact with. Use the following steps to lock specific cells.

1. Ensure the sheet is **Unprotected**.
2. Select all of the input cells. Use the **CTRL** key to select multiple cells.

Inputs

Input 1	<input type="text" value="+10"/>
Input 2	<input type="text" value="20"/>
Input 3	<input type="text" value="30"/>
Input 4	<input type="text" value="40"/>

Figure 35.9

3. Right-click on the selected cells and click **Format Cells** (see **Figure 35.10**). You can also use the keyboard shortcut CTRL+1 as a shortcut.

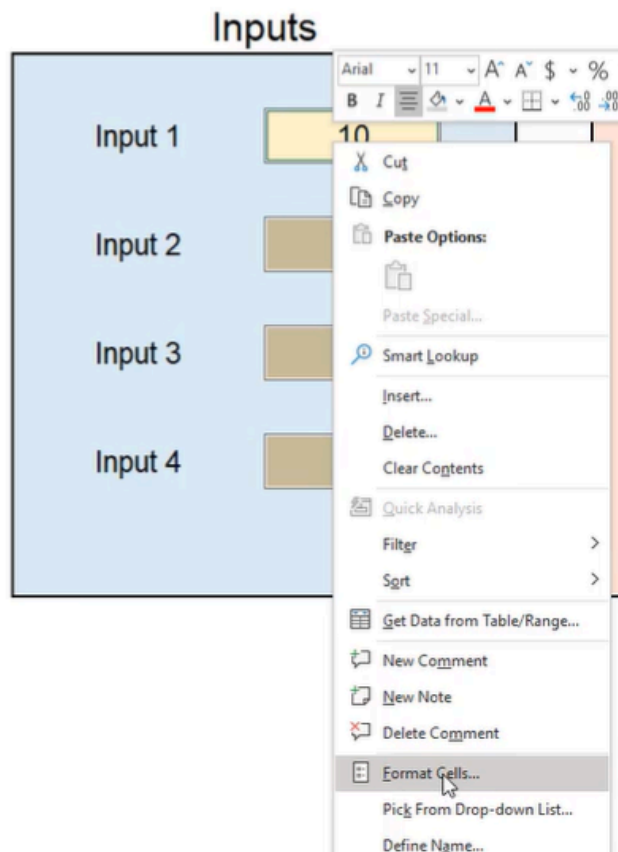


Figure 35.10

4. A popup titled **Format Cells** will appear. Select the **Protection** tab.
5. There are two checkboxes; the first box, **Locked**, will automatically be checked. Uncheck that option and select **OK**. (See **Figure 35.11**)

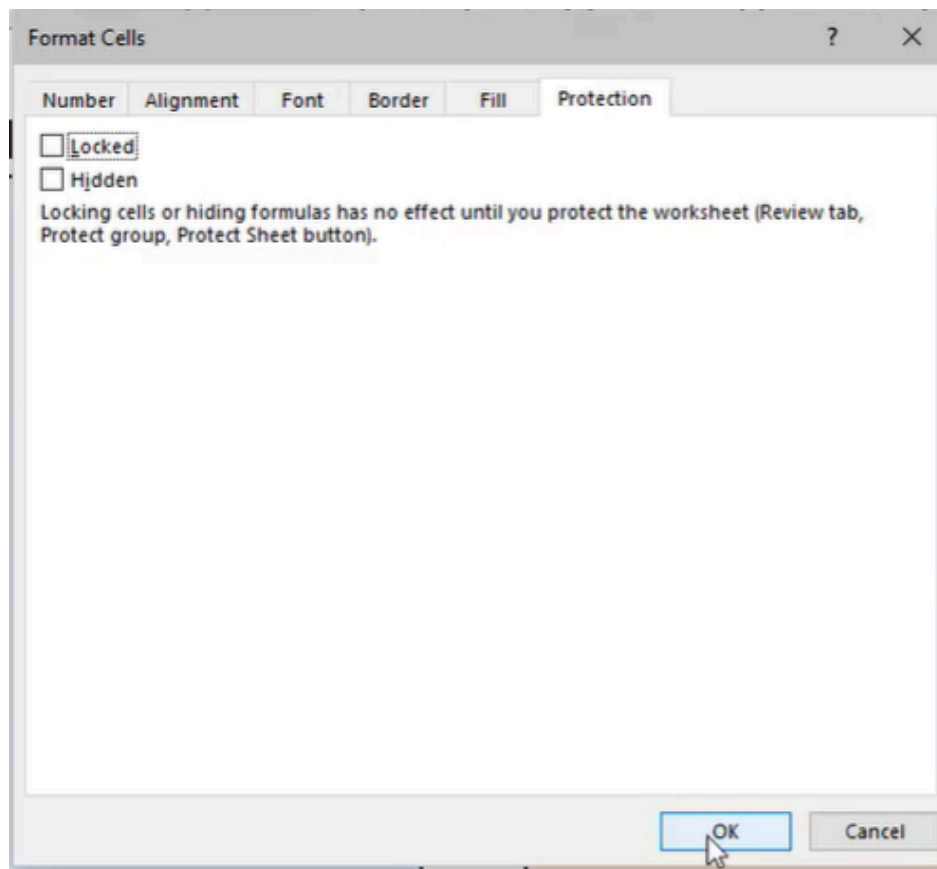


Figure 35.11

6. Go back to **Protect Sheet** and check the box **Select Unlocked Cells**. Select **OK**. (See **Figure 35.12**)

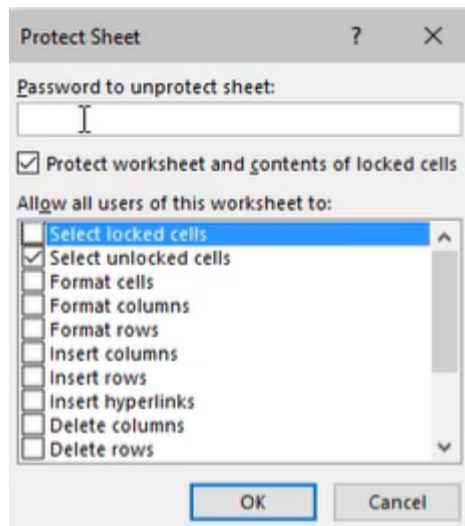


Figure 35.12

If you try to click any of the cells, you'll notice that you'll only be able to select the four Input cells you formatted earlier. You won't be able to select any of the other cells in the worksheet.

Unprotect the sheet and protect it again. This time, check the **Select Locked Cells** box. Select **OK**. (See **Figure 35.13**)

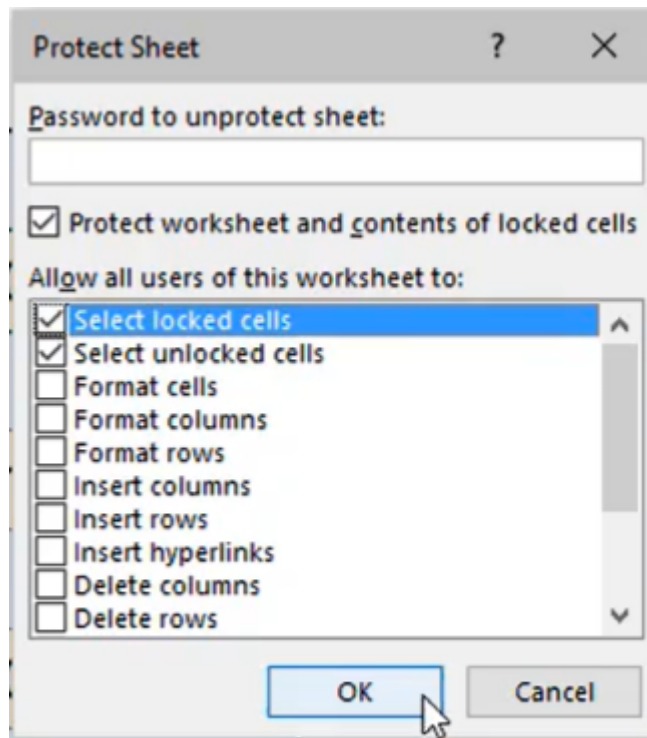


Figure 35.13

This time when you click cells, you'll notice you can select any of them, but if you try to change or delete the information in the Outputs box, you'll receive a popup box telling you it can't be changed.

Note: All cells are automatically locked by default in a new Excel sheet. So, you need to make sure that you have the appropriate cells unlocked while using the Protect Sheet. One way to do this a little more quickly is to use the Quick Access Toolbar.

Quick Access Toolbar

To create a button to quickly protect certain cells on a sheet, follow these steps:

1. At the top green bar of your Excel, select the drop-down arrow to the left of the title of the workbook.
2. Select more commands. (See **Figure 35.14**)

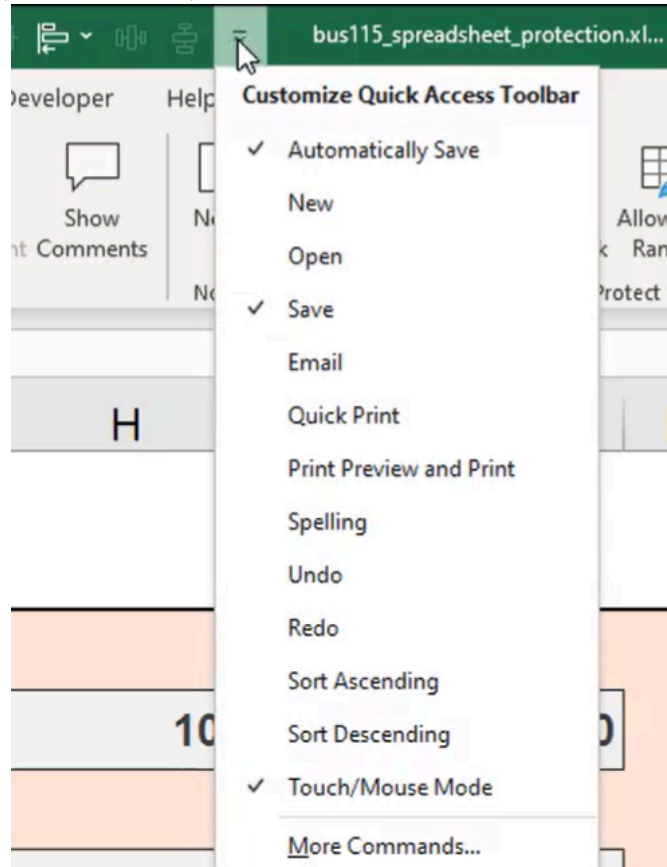


Figure 35.14

3. A popup box titled **Excel Options** will appear.
4. In the drop-down box under **Choose Commands From**, select the down arrow. Change it from **Popular Commands** to **All Commands**. (See **Figure 35.15**)

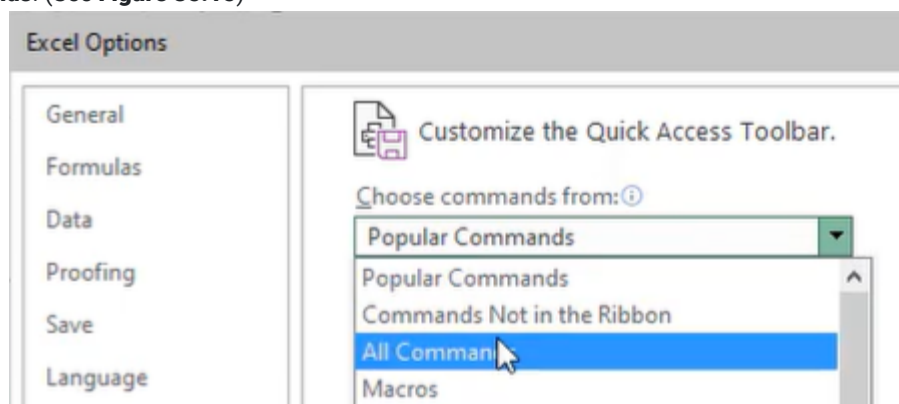


Figure 35.15

5. You will be directed to a list of commands. Press **L** on your keyboard to quickly find **Lock Cell**. (See **Figure 35.16**)
6. Select **Lock Cell** and then select **Add**.
7. Select **OK**.

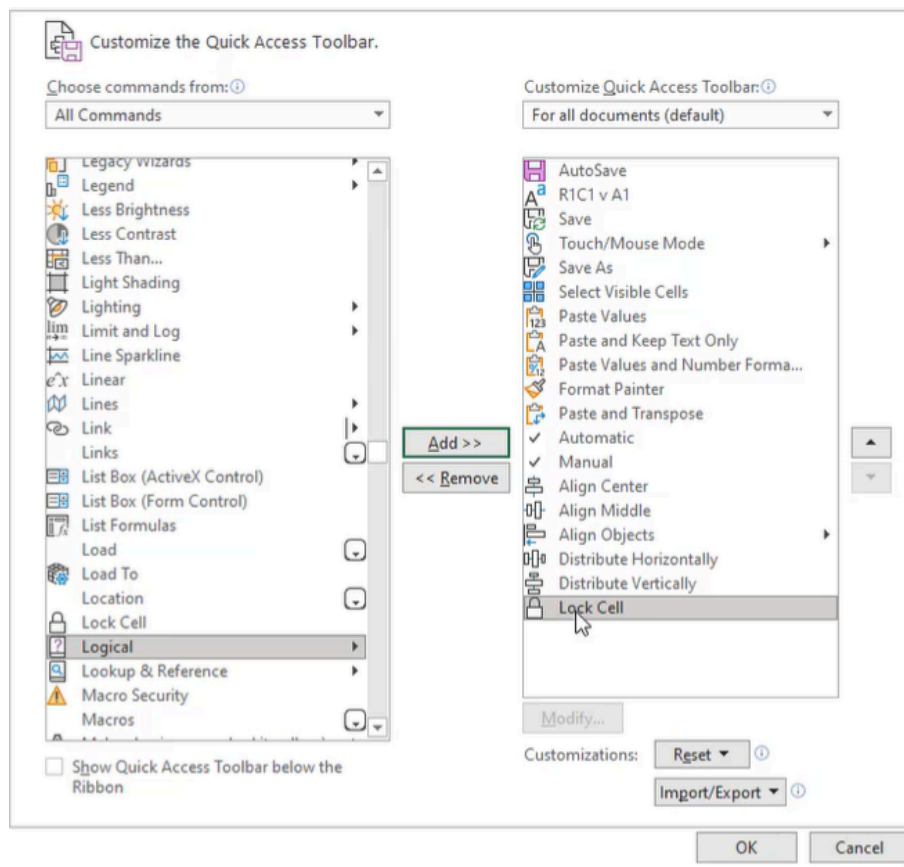


Figure 35.16

On the quick access bar, next to the drop-down button to the left of the title of the workbook, you'll see a button that looks like a lock.

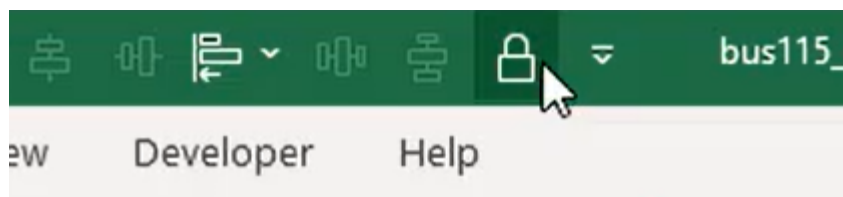


Figure 35.17

Now, when you select a cell that is locked, the icon is highlighted. If you select a cell that's unlocked, the icon is **not** highlighted.

You can select single cells or an entire range and you can select the lock icon button to lock and unlock the cells quickly. When you go to the protect sheet menu (especially if you have a PivotTable or PivotChart on your sheet, the user will not be able to interact with these things unless the specific checkbox is checked.

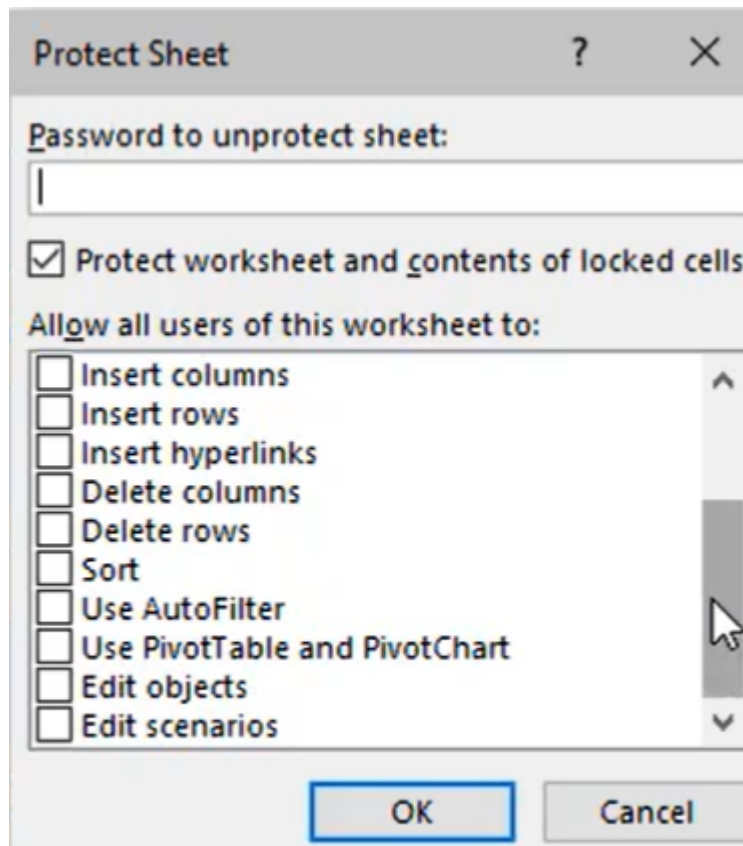


Figure 35.18

Protect a Workbook

This chapter primarily focuses on *worksheets*, but briefly, we'll cover protecting an entire workbook.

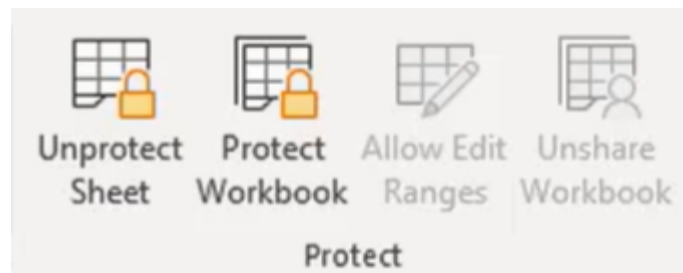


Figure 35.19

1. In the **Review** tab in the **Protection** section, you will see an option called **Protect Workbook**. Selecting this option allows you to protect the workbook for structure with a password.

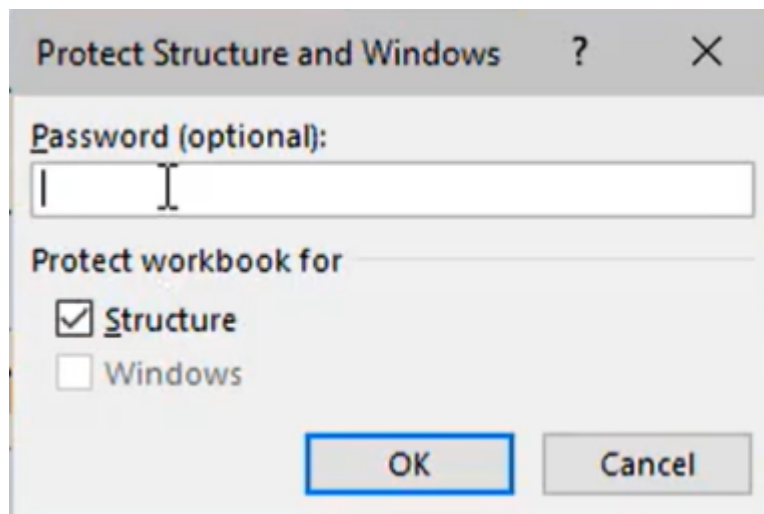


Figure 35.20

When we choose to protect the structure of the workbook, it means that users are not going to be able to make any typical changes. Locking the workbook is helpful in certain instances, but in the practices discussed in this text, you'll mostly focus on protecting the sheets.

Supplemental Resource



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