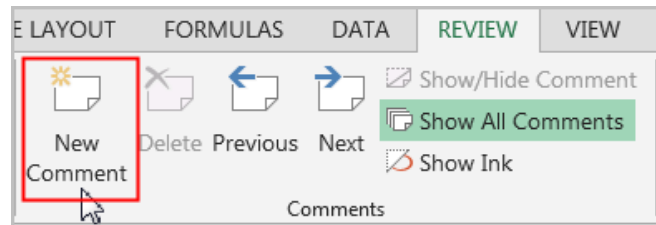


### Comments:

Excel allows you to provide the feedback for a particular cell instead of editing the cell content. Let's use the *Practice* worksheet in the **ExcelPart7.xlsx** workbook.

- Select the cell where you want the comment to appear. In our example, we'll select cell I2.
- From the **Review** tab, click the **New Comment** command.



- A comment box will appear. Type your comment, then click anywhere outside the box to close the comment.
- The comment will be added to the cell, represented by the red triangle in the top-right corner. The comment box will stay as long as **Show All Comments** command is selected in the **Comments** group on the ribbon. You can hide the comments box by clicking on **Show All Comments**. By doing so, only the red triangle indicator will be there and once you hover the mouse over the cell, the comment box will display.

Monthly Expense	Amount
Mortgage/Rent	\$35.00
Car loan	\$82.00
Car insurance	\$120.00
House insurance	\$65.00
Gas/electricity	\$550.00
Telephone	\$2,127.00
Cable	
Food	

**MieMie:** Extra \$50 a month will cut down 2 years on our mortgage.

**MieMie:** Cutting the cord and using free streaming services from library will save cable fees.

**MieMie:** Shopping at Aldi can save up to \$50 a month.

**Editing comments:** You can edit the content of the comment by clicking inside the comment box or using **Edit Comment** command on the ribbon after you select the cell that contains the comments.

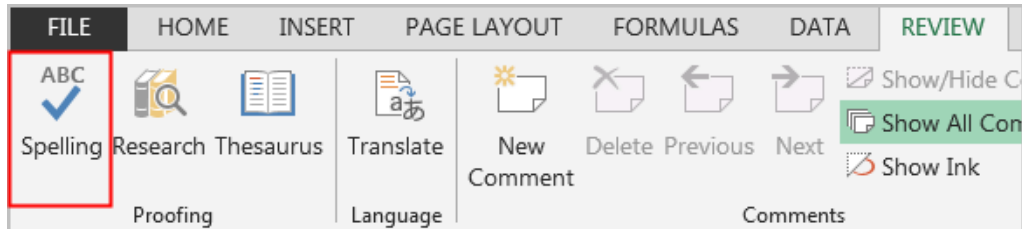
**Deleting comments:** Select the **cell** containing the comment you wish to delete. From the **Review** tab, click the **Delete** command in the **Comments** group. The comment will be deleted.

## Finalizing and Protecting your Workbook:

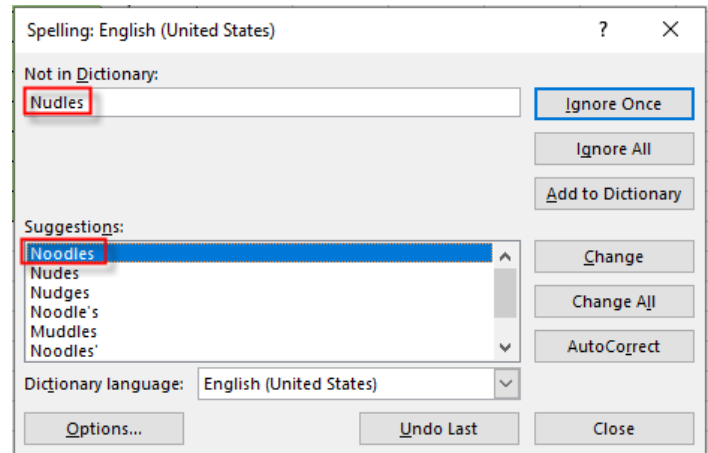
It is a good idea to check your workbook before sharing that it does not include spelling errors or information you wish to keep private. You can use **Spell Check** and **Document Inspector** to assure avoiding these errors. We will use the same worksheet *Practice*.

### Check Spelling Errors:

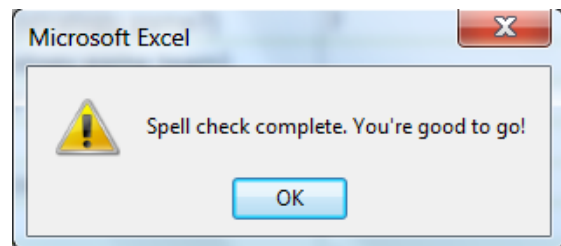
- From the **Review** tab, click the **Spelling** command.



- The Spelling dialog box will appear. For each spelling error in your worksheet, **Spell Check** offers suggestions for the correct spelling. Choose a suggestion or ignore if does not need to be corrected, then click **Change** to correct the error or **Ignore Once** to skip the word without changing it. **Ignore All** will skip the word without changing it and also skip all other instances of the word in your worksheet. **Change All** will change the current word and all other instances of the word. One can also add any word to the Dictionary by using the **Add to Dictionary** command so that Word will not prompt the word as an error in future.



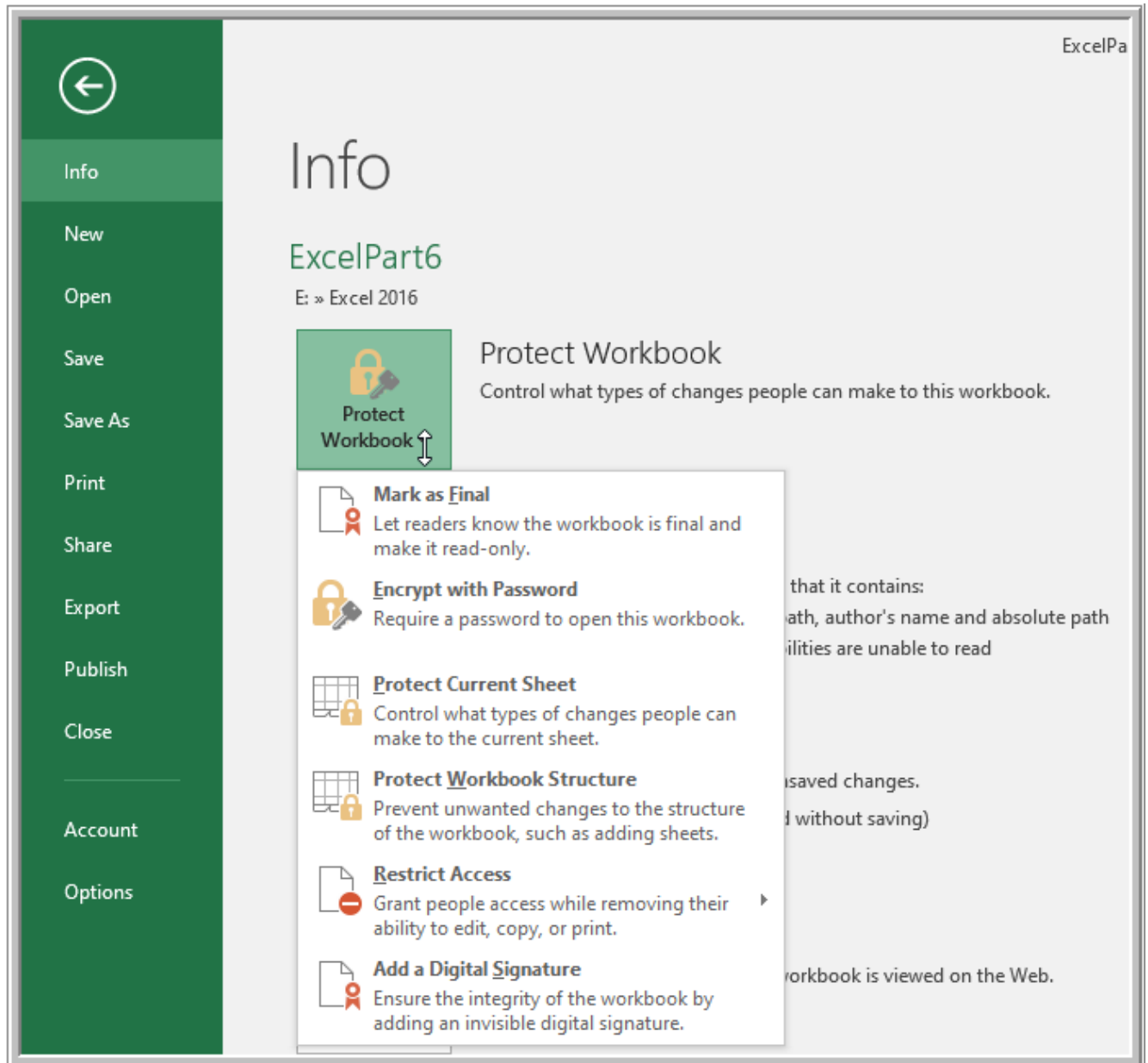
- A dialog box will appear after reviewing all spelling errors. Click **OK** to close Spell Check.



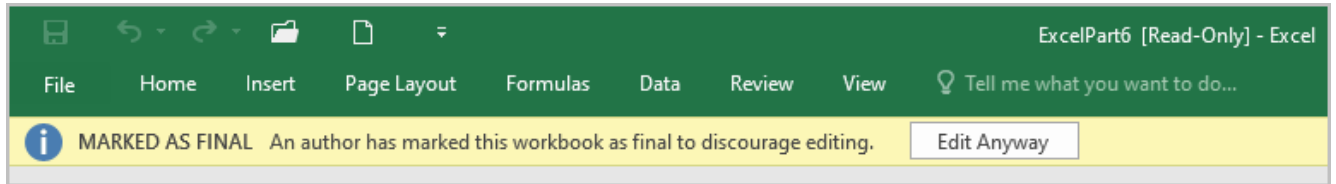
## Protecting your Workbook:

Protecting your workbook becomes essential once it is shared among multiple users so that someone cannot delete or change data in certain cells by accident. Nor can they insert/delete columns, among other things. To prevent anyone from changing, moving, or deleting important data, you can protect certain worksheet or workbook elements. Use the next worksheet *ProtectWork*.

- Click on **File** and from the **Info** pane click on the drop-down arrow next to **Protect Workbook**.



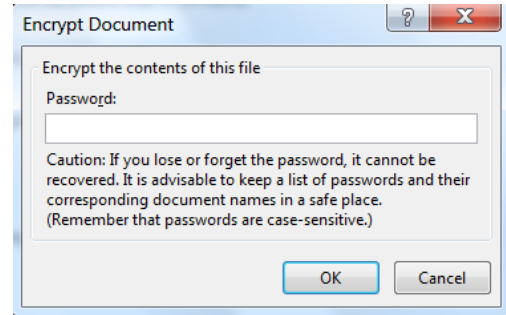
- **Mark as Final**: Use this to discourage others from editing the workbook. Workbook will be opened as **Read-Only** copy for others. However, it will not prevent them from editing or deleting contents had they chosen **Edit Anyway** command upon opening.



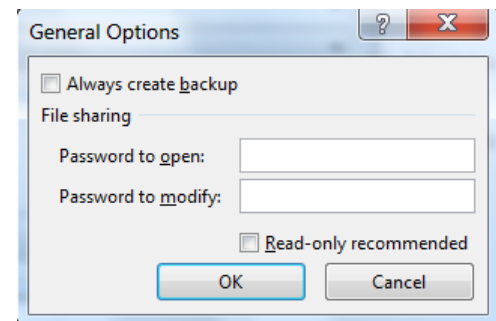
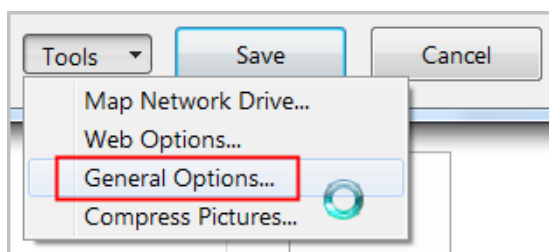
- **Encrypt with Password:** It is simple but effective. Without the password, one cannot open the workbook. Passwords are case sensitive. Two ways to set your password.

1. Click on **Encrypt with Password** and fill in the password when Encrypt Document window pops up.

OR

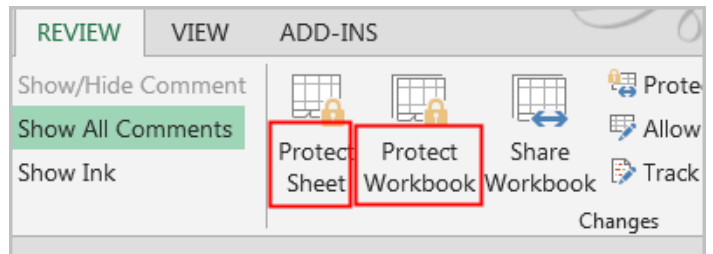


2. Click on **File>Save As**. Select a location you want to save your workbook. When the **Save As** dialog box comes up, click on the drop-down arrow on the **Tools** button next to the **Save** button. Select **General Options**. **General Options** dialog box will come up.
  - Enter password in the **Password to open** box. This will prevent users without password from opening the workbook just like in the first option above.
  - If you want some users to be able to modify the workbook upon opening, enter another password in the **Password to modify** box. Those who have the modification password will only be able to modify. The others will be forced to work with the **Read-only** copy. **Read-only** copy users will only be allowed to save as a *copy* if they make any changes and try to save.

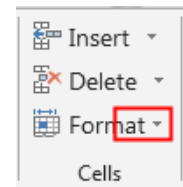


**To unprotect workbook with passwords:** you will have to go through above steps and delete passwords from boxes in **General Options** box.

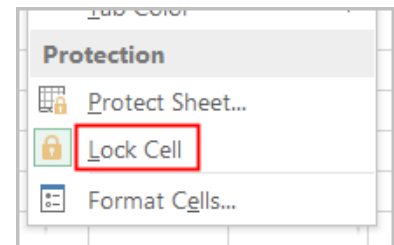
- Protect current Sheet:** This feature is especially useful if you want users to be able to have access to some parts of the worksheet yet still want to protect other parts that contain formulas, for example. You can get to this command either under **Info** pane (under **Protect Workbook>Protect Current Sheet**) or via the **Review** tab. Let's assume we want to allow users to enter/modify data in cells B2:G18 but want to protect the remaining cells on sheet. By default, every cell in a worksheet is automatically locked but it does not mean these cells are protected. You must use **Protect Sheet** command to do so. Follow the steps below.



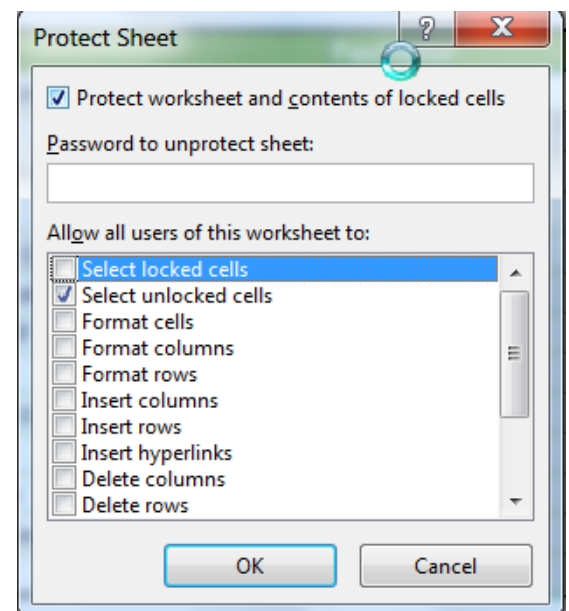
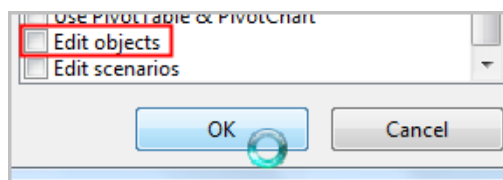
1. Select the cell range B2:G18.
2. Under the **Home** tab, in the **Cells** group, click the drop-down arrow next to the format.



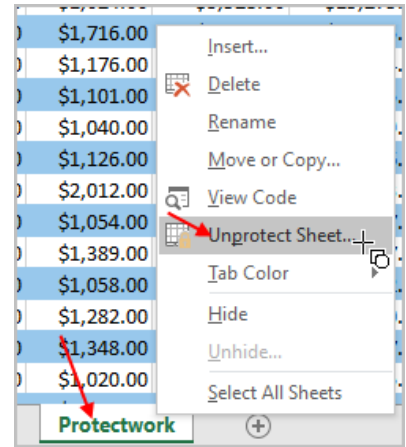
3. From the menu, under the **Protection** heading, click on **Lock Cell**. By doing so, you are unlocking the cells range B2:G18 – this action will enable the users to edit/modify data in that range.



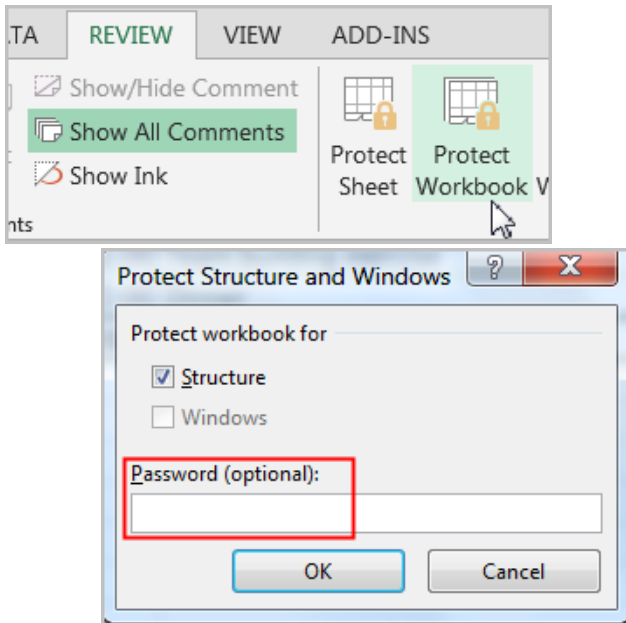
4. Go to **Review**, click on the **Protect Sheet**. From the dialog box, enter the password (so no one can unprotect without the password) and make sure to leave the check box for only **Select the unlocked cells** under **allow all users of this worksheet to**. One other option you may consider leaving the check box on is for **Edit objects** further down in the list. Giving this option will let the user to be able to leave **comments**.



**To Unprotect Sheet:** Right-click on the worksheet tab; then click on **Unprotect Sheet** command. Enter the password when prompted.

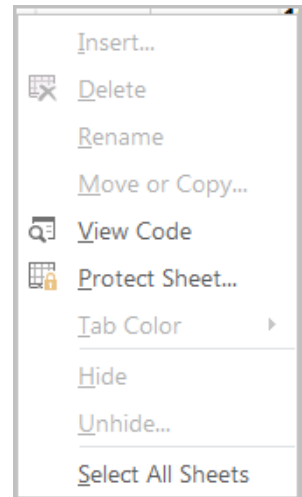
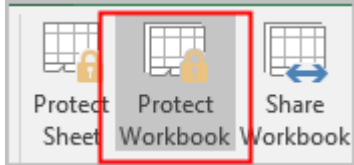


- **Protect Workbook:** This command is used to keep others from structural changes such as moving, deleting or adding sheets. To apply this rule, you can use either method below.
  1. click on the **Review** tab. Then click on the **Protect Workbook**. OR
  2. Click on **File>Info>Protect workbook>Protect workbook structure****Protect Structure and Windows** dialog box will show up and the box for **Structure** will automatically be checked. Even though **Password** is optional, it is recommended to enter so no one can unprotect the workbook without the password.



Doing so will deactivate all commands upon right-clicking on the sheet and no one will be able to insert, delete, rename sheets, etc.

To unprotect workbook, click on the **Protect Workbook** command one more time again; enter the password to unprotect it.



### Exercise 4-7:

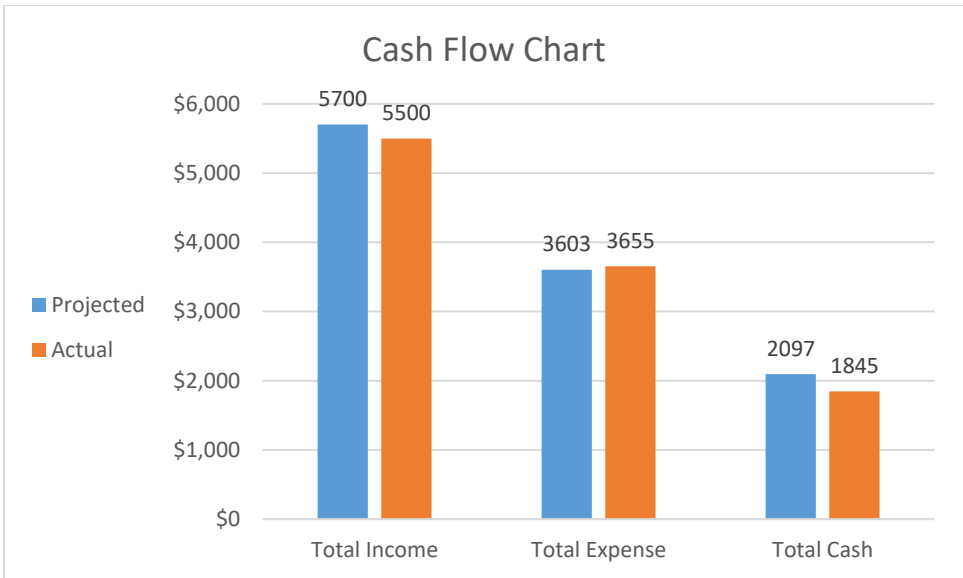
1. Open a new blank worksheet by clicking on the + sign in the same workbook.
2. In Cell B1: type "Name" set Calibri size 20. Bold type and Font Color Green.
3. In Cell B2: type "Family Budget"; set Calibri size 31. Bold type and Font Color Blue.
4. Change column width to 4 on Column A.
5. Change column width to 43 on Column B.
6. Change the height of row 2 to 45.
7. In Cell B3: type the current month such as "March". Set bold type and font to size 20 and Font Color Green.
8. Select Cell B3 again. Apply in that cell, thick bottom border.
9. In Cell B4: set the cell to "Text" format; type the current year such as "2020". Set bold type and font to size 20 and Font Color Grey.
10. Change Rows 3 and 4 heights to 27.
11. Name this worksheet as "Cash Flow".
12. Make a copy of this worksheet twice in the same workbook to show at the end of workbook. You will see "Cash Flow (2)" and "Cash Flow (3)".
13. Rename "Cash Flow (2)" as "Monthly Income". Change the color of worksheet to Green.
14. Rename "Cash Flow (3)" as "Monthly Expense". Change the color of worksheet to Orange.
15. Change the color of "Cash Flow" worksheet to Blue.
16. Select the Monthly Income worksheet. You are going to copy a set of data from another source instead of typing in.
17. Open up the workbook called "DataforExcelPart7Exercise.xlsx" and copy the data A1:D5 from *Data1* sheet on Cell B5 into the Monthly Income sheet. Your worksheet should look as shown below.

		Projected	Actual	Variance
5	Monthly Income			
6	Income 1	4000	4000	
7	Income 2	1400	1500	
8	Other Income	300	0	
9	Total Income			

18. Apply the format of Cell B1 to Cell B5 by using the format painter.
19. Change column widths of C through E to size 17.
20. Select Cells B5:E9; Click on Insert and select Table to change this range of cells into a table.



21. In cells C9 and D9, find the total of those columns by using the Summation function on Home tab. Since we are in a table, notice the =SUBTOTAL formula is automatically created, which provides the same result as =SUM formula.
22. In Cell E6, find the Actual-Projected value (=D6-C6). Since we are in a table range, upon clicking cells D6 and C6 will give us the formula =[@Actual]-[@Projected].
23. And the remaining cells in Column E should also filled in automatically.
24. Select the *Monthly Expense* worksheet. You are going to copy a set of data from "DataforExcelPart7Exercise.xlsx" from Data2 sheet into this.
25. Go to "DataforExcelPart7Exercise.xlsx" – Data2 sheet. Select A1:D22; copy and paste the data in *Monthly Expense* worksheet on Cell B5.
26. Apply the format of Cell B1 to Cell B5 by using the format painter.
27. Select Cells B5:E26; Click on Insert and select Table to change this range of cells into a table.
28. Change column widths of C through E to size 17.
29. In cells C26 and D26, find the total of those columns by using the Summation function on Home tab. Since we are in a table, notice the =SUBTOTAL formula is automatically created, which provides the same result as =SUM formula.
30. In Cell E6, find the Actual-Projected value (=D6-C6). Since we are in a table range, upon clicking cells D6 and C6 will give us the formula =[@Actual]-[@Projected].
31. And the remaining cells in Column E should also filled in automatically.
32. Select the Cash Flow worksheet. You are going to copy a set of data from "DataforExcelPart7Exercise.xlsx" from Data3 sheet into this.
33. Go to "DataforExcelPart7Exercise.xlsx" – Data3 sheet. Select A1:D4; copy and paste the data in *Cash Flow* worksheet on Cell B5.
34. Apply the format of Cell B1 to Cell B5 by using the format painter.
35. Let's take care of *Projected Column – column C* in this worksheet. Link Cell C6 to Cell C9 from projected column in *Monthly Income*. Note, the linking or cell reference is a formula; it begins with an equal sign in a cell where you want to see the result. Since we want to see the result in Cell C6, we will begin typing the "=" sign in Cell C6; then click on *Monthly Income* worksheet and in there, click on Cell C9; hit Enter. You should be back at cell C6 on your *Cash Flow* sheet. (the formula should look ='Monthly Income'!C9)
36. Similarly, link Cell C7 to Cell C26 from projected column in *Monthly Expense*. (the formula should look ='Monthly Expense'!C26)
37. Now, let's link the cells for column D – Actual column. Link cell D6 to cell D9 from actual column in *Monthly Income*. (the formula should look ='Monthly Income'!D9)
38. Do the same to link cell D7 to Cell D26 from actual column in *Monthly Expense*. (the formula should read ='Monthly Expense'!D26)
39. Select Cells B5:E8; Click on Insert and select Table to change this range of cells into a table.
40. In Cell C8, find the total cash in projected column. =C6-C7
41. In Cell D8, find the total cash in Actual column. =D6-D7
42. In Cell E6, find the difference of Actual-Projected column. =D6-C6. Upon hitting enter to finish this cell, the remaining cells in column E should be automatically completed.
43. Use Cells range B5:D8 to draw a bar chart. Retitle the chart and change legend location and insert labels so your chart will look like the one shown on next page.



44. Finally, select all three worksheets; select Cell B1 then type in your family last name so every cell B1 in all three sheets would have same information.

A	B	C	D	E
	<b>The Johnson Household</b>			
	<b>Family Budget</b>			
	<b>March</b>			
	<b>2020</b>			
	<b>Cash Flow</b>	<input type="button" value="Projected"/>	<input type="button" value="Actual"/>	<input type="button" value="Variance"/>
	Total Income	5700	5500	-200
	Total Expense	3603	3655	52
	Total Cash	2097	1845	-252

A	B	C	D	E
	<b>The Johnson Household</b>			
	<b>Family Budget</b>			
	<b>March</b>			
	<b>2020</b>			
	<b>Monthly Income</b>	<input type="button" value="Projected"/>	<input type="button" value="Actual"/>	<input type="button" value="Variance"/>
	Income 1	4000	4000	0
	Income 2	1400	1500	100
	Other Income	300	0	-300
	Total Income	5700	5500	-200

A	B	C	D	E
	The Johnson Household			
	<b>Family Budget</b>			
	<b>March</b>			
	<b>2020</b>			
	<b>Monthly Expense</b>	<b>Projected</b>	<b>Actual</b>	<b>Variance</b>
	Housing	1500	1500	0
	Groceries	250	280	30
	Telephone	38	38	0
	Electric / Gas	65	78	13
	Water / Sewer / Trash	25	21	-4
	Cable TV	75	83	8
	Internet	60	60	0
	Maintenance / Repairs	0	60	60
	Childcare	180	150	-30
	Tuition	250	250	0
	Pets	75	80	5
	Transportation	280	260	-20
	Personal Care	75	65	-10
	Insurance	255	255	0
	Credit Cards	100	100	0
	Loans	0	0	0
	Taxes	0	0	0
	Gifts / Charity	150	150	0
	Savings	225	225	0
	Other	0	0	0
	<b>Total</b>	<b>3603</b>	<b>3655</b>	<b>52</b>