University Information
Technology Services

Microsoft Office
Excel 2016 for Windows

Accessibility

University Information Technology Services

Learning Technologies, Training & Audiovisual Outreach

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University Information Technology Services

Microsoft Office: Excel 2016 for Windows
Accessibility

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Introduction

This document has been developed to provide you with information about accessibility in *Microsoft Office Excel 2016*. In this document, you will learn about the tools available for accessibility. You will also learn how to control the visual appearance of your spreadsheet. Additionally, *best practices* and *effective spreadsheet structure* are also covered to help you when using Excel.

Learning Objectives

The following learning objectives for accessibility will be covered in this document. After completing the instructions in this booklet, you will be able to:

- Utilize available accessibility tools
- Use the keyboard to work with ribbon programs
- Control the visual appearance of the spreadsheet
- Understand best practices for spreadsheet design
- Understand effective spreadsheet structure
- Use the accessibility checker
- Obtain help

Tools

The following explains how various tools can be used effectively for accessibility with *Microsoft Office Excel 2016*.

AutoCorrect

The AutoCorrect feature in *Excel 2016* is a list of words that are frequently misspelled and mistyped. This feature corrects these words when a person enters them into a document. The words can be added and deleted from the list. This is a great tool for accessibility.

This tool can also be used for abbreviation expansion. For example, suppose that you frequently type *Atlanta, Georgia*, but would like to enter an abbreviation into AutoCorrect so that fewer keystrokes are required for entry. The following explains how to use the **AutoCorrect** tool for abbreviation expansion:

1. Click the **File** tab.

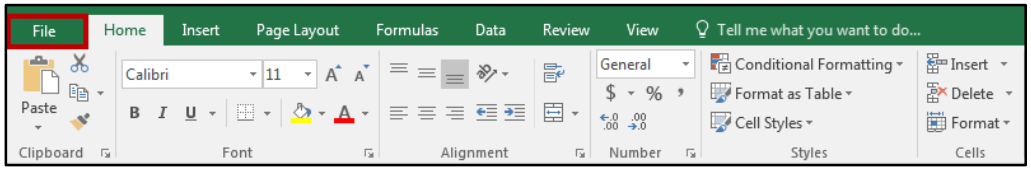


Figure 1 - File Tab

2. The *Backstage view* will appear. Click the **Options** button.

Figure 2 - Options tab

3. The *Excel Options* window will open. Click the **Proofing** button.

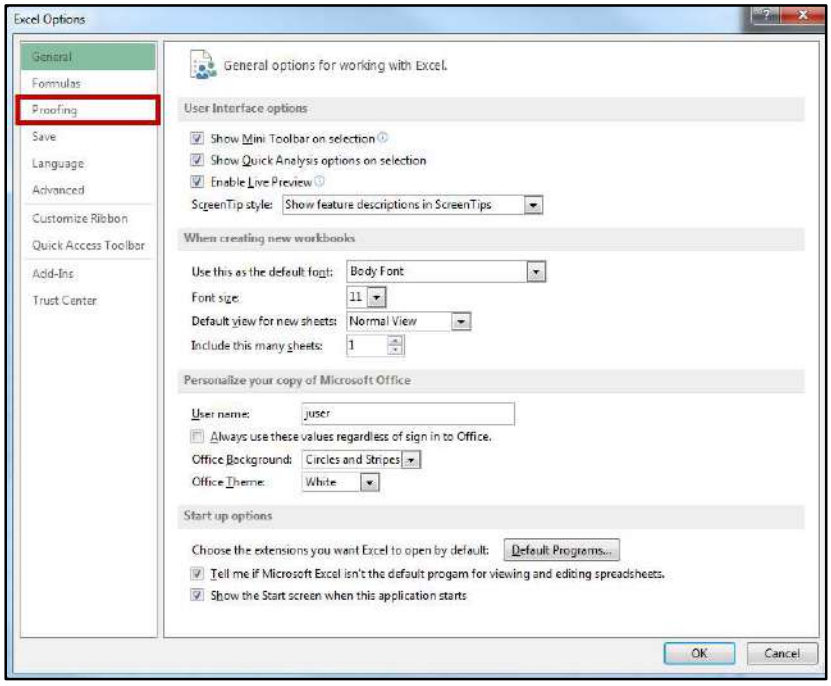


Figure 3 - Proofing

4. Click the **AutoCorrect Options** button.

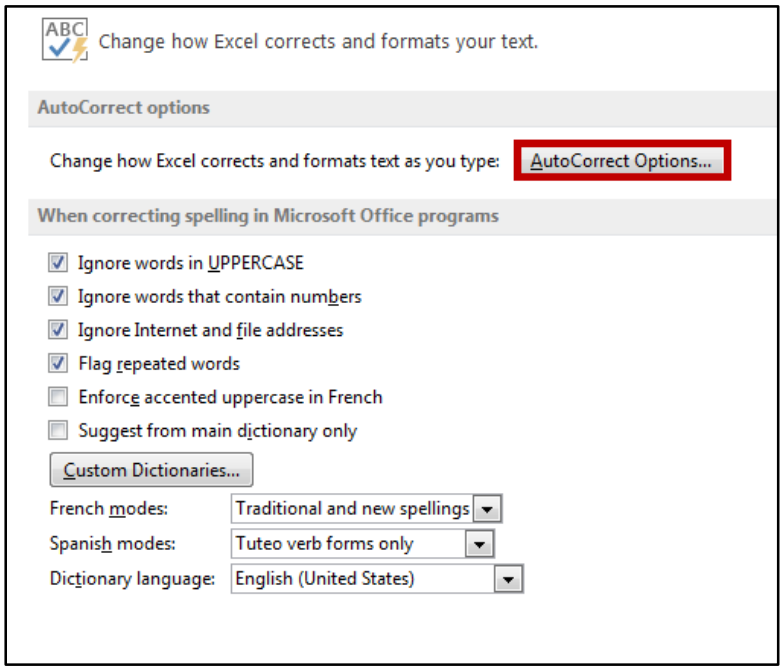


Figure 4 - AutoCorrect Options

5. In the *Replace* box, enter an abbreviation for **Atlanta, Georgia**. For example, you could enter ***xATL***(the *x* stands for expand).

Figure 5 - Replace

6. In the *With* field, enter **Atlanta, Georgia**.

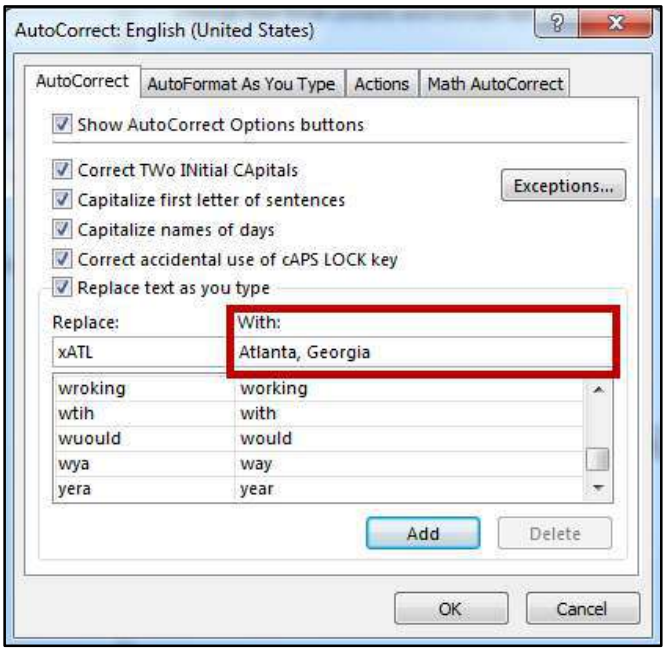


Figure 6 - With Field

7. Click the **Add** button.

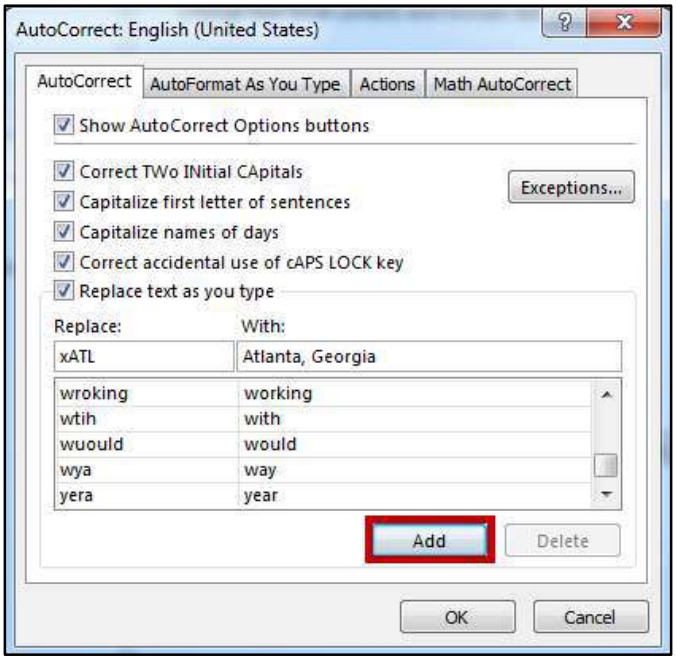


Figure 7 - Click the Add Button

8. Click the **OK** button to close the *AutoCorrect* window.

Figure 8 - Click Ok

9. Click **OK** to close the *Excel Options* window. When **xATL** is typed into *Excel*, the words *Atlanta, Georgia***,** will appear on the screen.

Figure 9 - Auto Correct

Comments

Comments are another tool that can be used for accessibility. The following instructions explain how to insert a comment:

1. Place your **cursor** in the cell where the comment to be inserted.

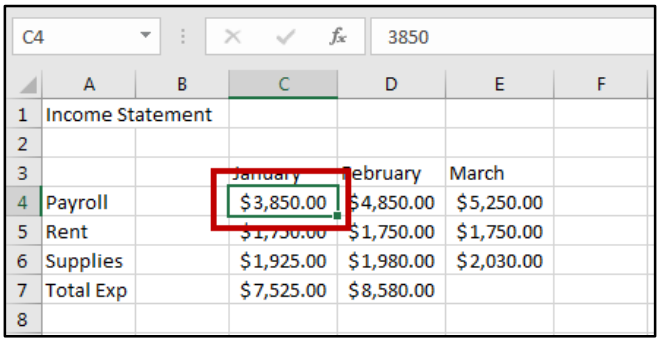


Figure 10 - Click the Cell

2. Click the **Review** tab.

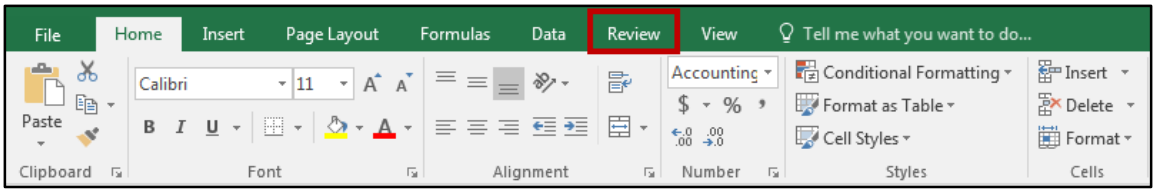


Figure 11 - Click Review

3. Click on **New Comment**.

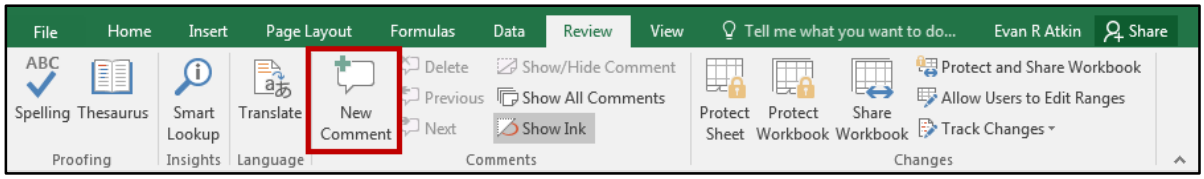


Figure 12 - New Comment

4. A *comment box* will appear. Enter a **comment** in the box that appears.

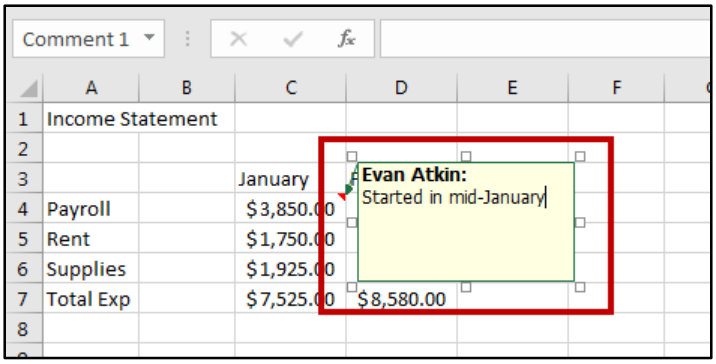


Figure 13 - Enter a Comment

5. When you have finished entering your comment, click on another cell in the spreadsheet to exit the **Comment Box**.

6. To remove a comment, right-click on the **cell** containing the comment and then select **Delete Comment**.

Spell Check

The *Spell Check* feature in *Excel 2016* allows you to double-check the sheet for spelling errors. To start a spell check, follow the steps below:

1. Click the **Review** tab.

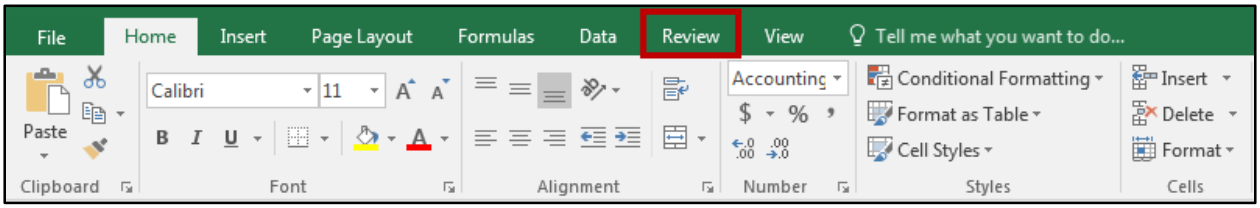


Figure 14 - Click the Review Tab

2. Click the **Spelling** button.

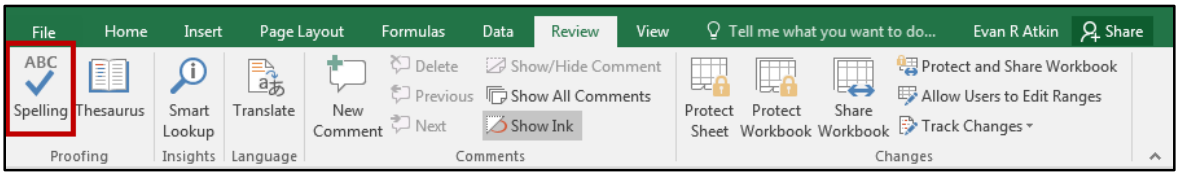


Figure 15 - Spelling Button

3. The *Spell Check* tool will start and give you the option to accept or reject the suggestions offered.

Thesaurus

The *Thesaurus* is a great tool to improve the vocabulary used within the spreadsheet. To display the thesaurus, follow the instructions listed below:

1. Place the **cursor** on your target word.

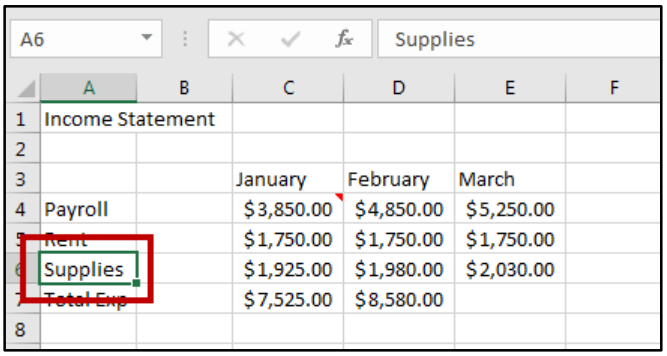


Figure 16 - Placing Your Cursor

2. Click the **Review** tab.

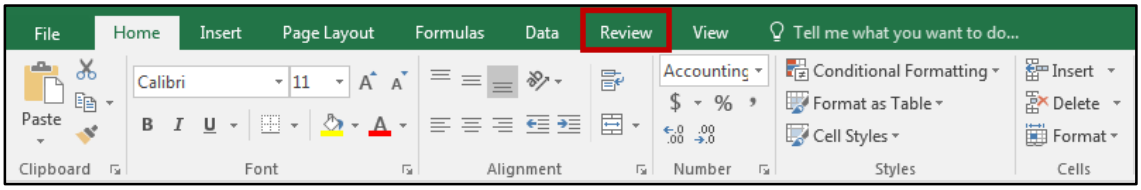


Figure 17 - The Review Tab

3. In the *Proofing* area, click **Thesaurus**.

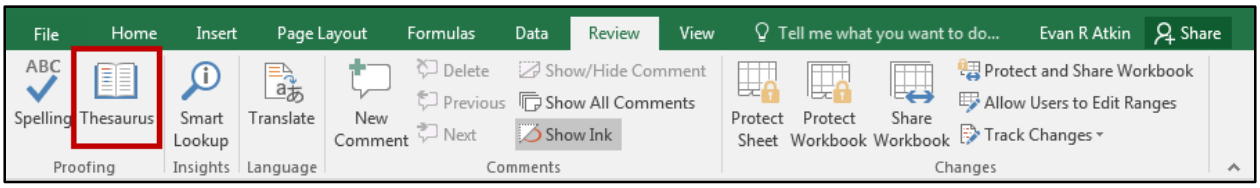


Figure 18 - Thesaurus

4. A window will appear on the screen showing other potential words that could be used in the place of the selected word.

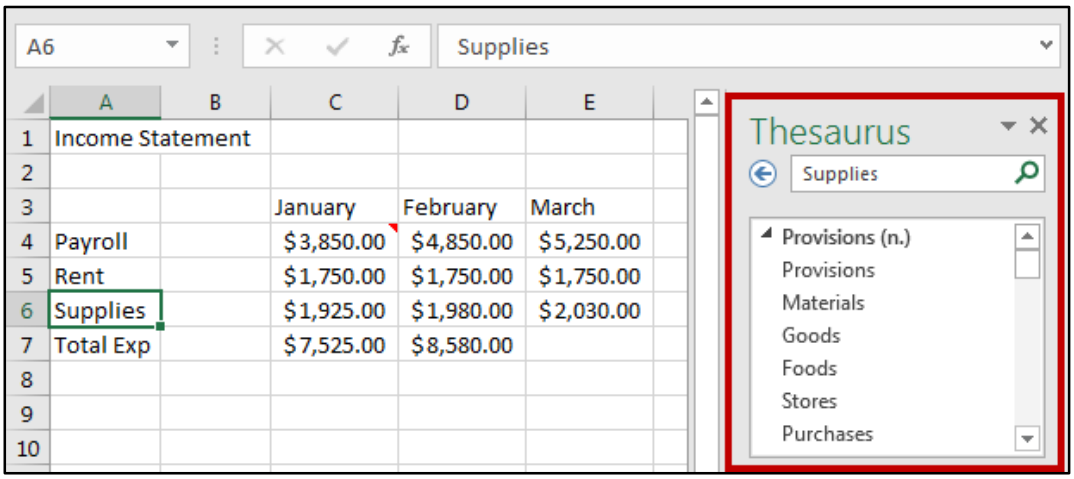


Figure 19 - Thesaurus Appears on the Right Side of the Spreadsheet

5. To replace the word, hover your **mouse** over your preferred synonym.

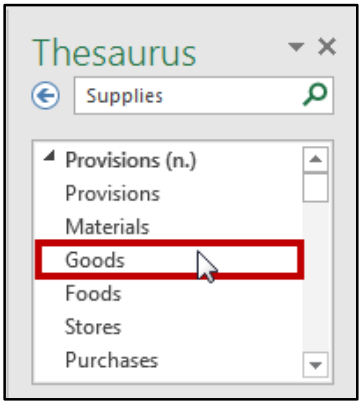


Figure 20 – Synonym

6. Click on the **drop-down** located next to your preferred synonym.

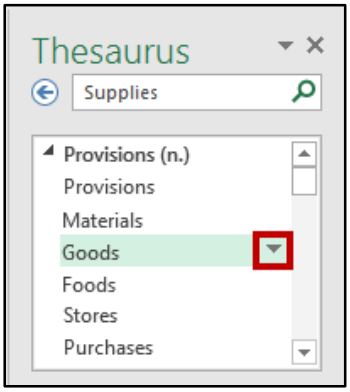


Figure 21 - Drop-down Menu

7. Click on **Insert**. Your synonym will replace the selected word.

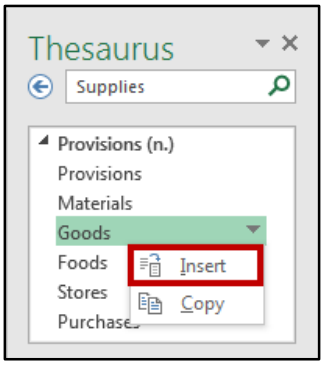


Figure 22 - Insert

Templates

The *Template* feature allows the user to have a spreadsheet available that has been customized with items such as name, date, etc. The background color, font style, font color, text size, etc. can be customized for the user as well.

Note: Use **Semantic Structure (or Styles)** to create structure in Word, Open Office, HTML, etc. Heading 1 for Section Heading; Heading 2 for all Sub-Section Headings, ect. Also, Strong (structural equivalent of bold); Emphasis (structural equivalent of italics). Other Style types are available, as needed. Table of Contents should be provided based on the Heading structure; Table of Figures, if needed.

Note: Ensure Readability by dividing large blocks of text into smaller more manageable sections, avoid complex sentences, and use sans-serif font at approximately 12 points.

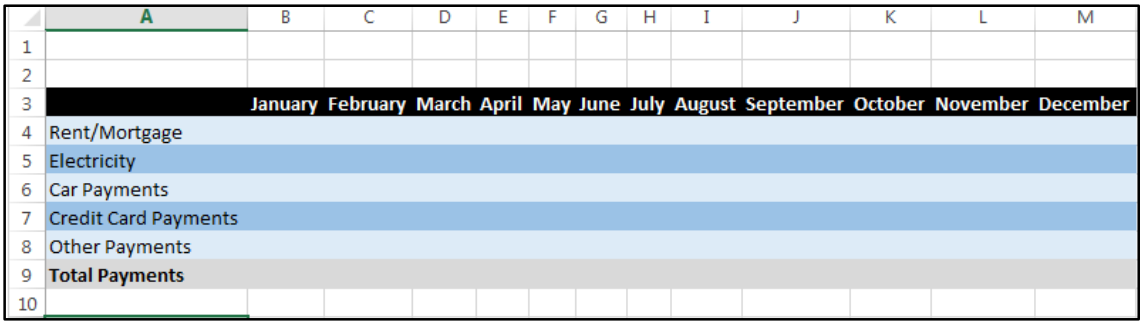
Note: Avoid Color Coding. Color alone is not a sole means of conveying important information.

Note: Have **Sufficient Color Contrast** between foreground and background elements. Also, make sure the background does not overpower text (e.g. PowerPoint, Web page, etc.)

To create a template, follow the instructions below:

1. Open a **spreadsheet**.
2. Enter any necessary **text** in the spreadsheet as desired.

3. Apply your **desired settings** to the spreadsheet (e.g. background color, text size, etc).



	A	B	C	D	E	F	G	H	I	J	K	L	M
1													
2													
3		January	February	March	April	May	June	July	August	September	October	November	December
4	Rent/Mortgage												
5	Electricity												
6	Car Payments												
7	Credit Card Payments												
8	Other Payments												
9	**Total Payments**												
10													

Figure 23 - Apply Spreadsheet Settings

4. Click the **File** tab.

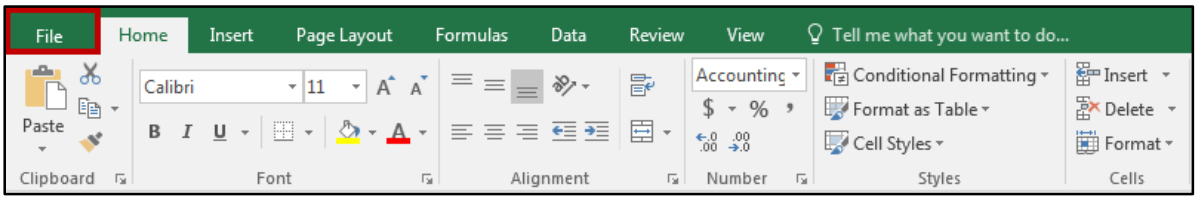


Figure 24 - File Tab

5. The *Backstage View* will open. Click **Save As**.

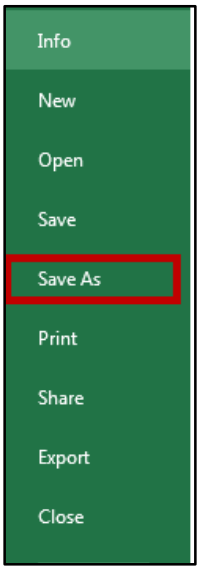


Figure 25 - Save As

6. Under *Save As,* select the **Computer** option.

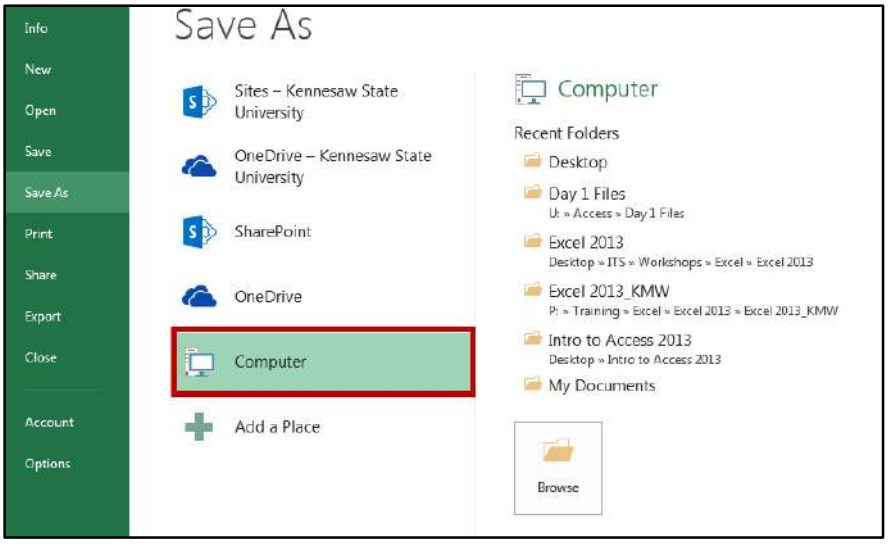


Figure 26 - Computer

7. Click **Browse**.

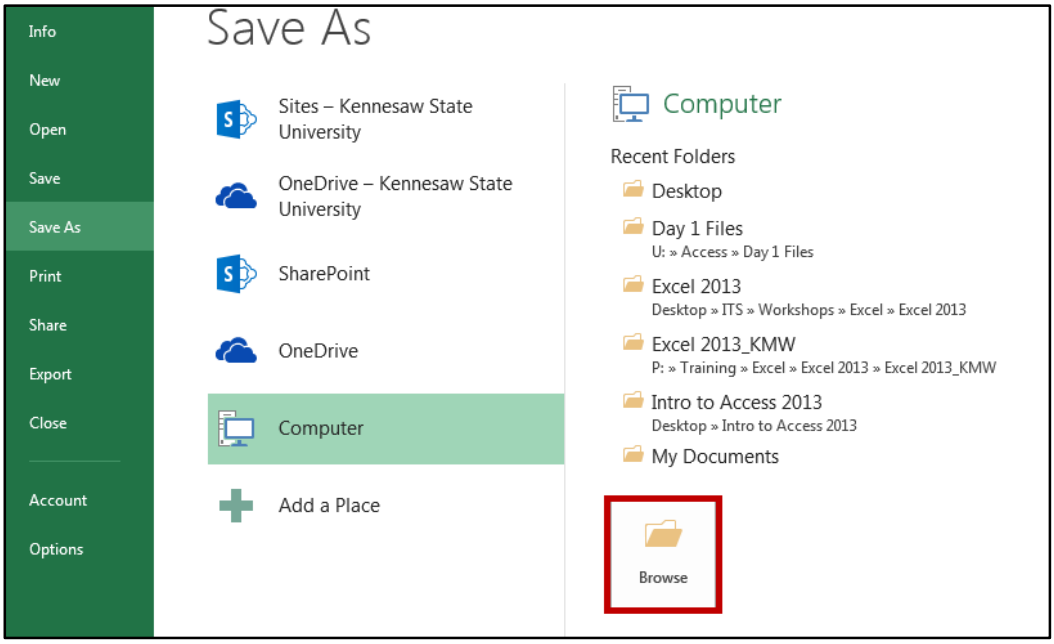


Figure 27 – Browse

8. In the *File name* field, enter the **file** name.

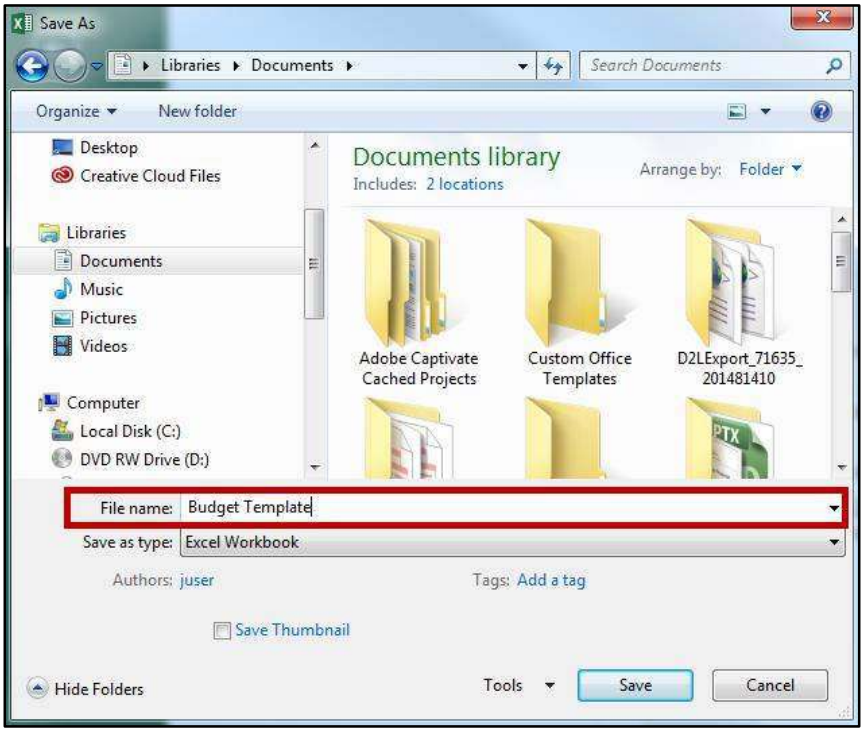


Figure 28 - Save As

9. In the *Save as type* drop-down, select **Excel Template**.

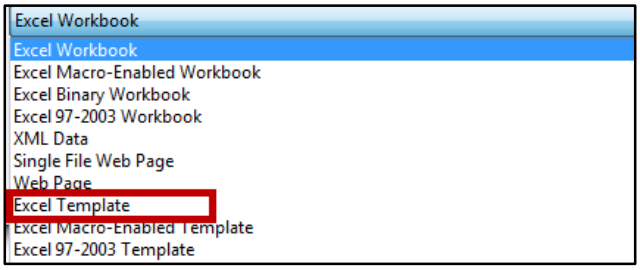


Figure 29 - Excel Template

10. Click **Save**.

To open your Template:

1. Click on the **File** tab.

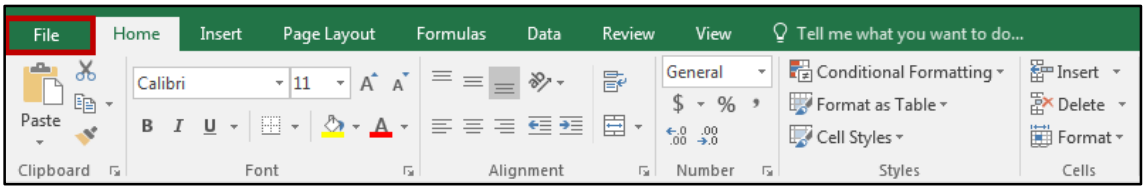


Figure 30 - File Tab

2. The *Backstage View* will open. Click **New**.

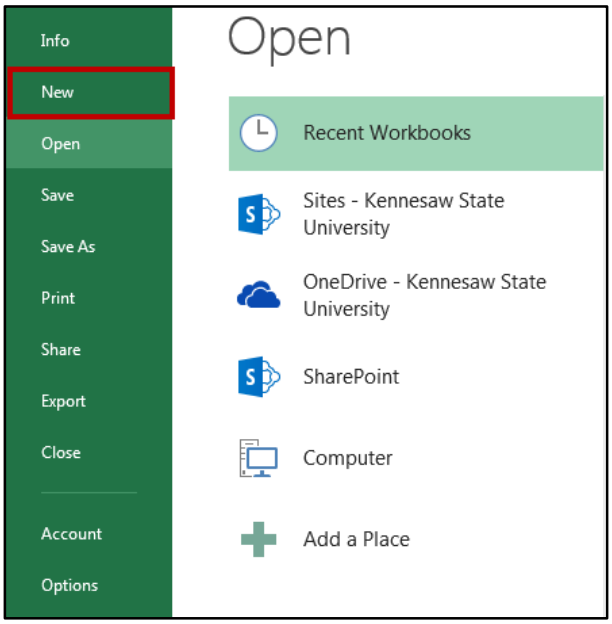


Figure 31 – New

3. In the *New Excel* document screen, click on **Personal**.

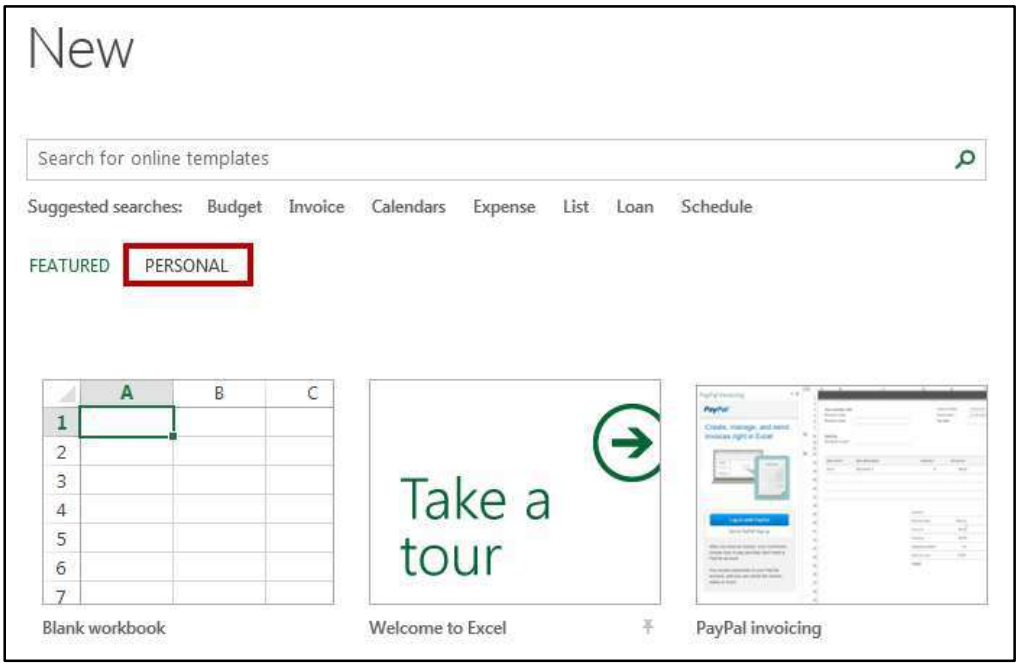


Figure 32 - Personal

4. Templates that you have created will appear. Click on the **template** that you have created.

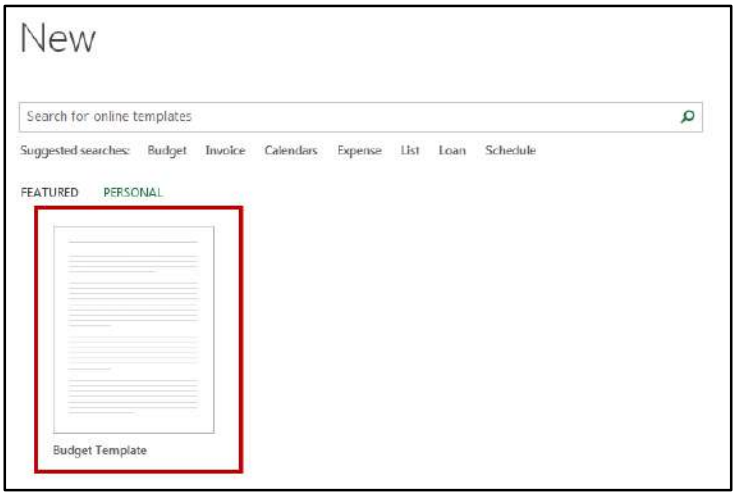


Figure 33 - Click on Your Template

Using the Keyboard to Work with Ribbon Programs

Some users may prefer using the keyboard as they work with *Microsoft Excel*. *Access Keys* allow you to control each button on the ribbon with the keyboard. The following instructions explain how to use *Access Keys*:

1. Press and release the **Alt** key on the keyboard.
2. *Letters and numbers* will appear next to their corresponding buttons on the ribbon.

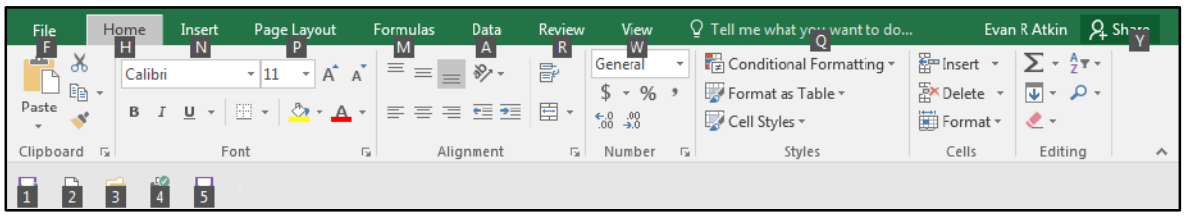


Figure 34 - Letters and Numbers

3. Press the corresponding **number or letter** of your choice on your keyboard. If you select a letter for one of the tabs on the ribbon, the tab will become selected and you will see a letter or number for each command on the selected tab. For example, if we press the **H key**, you will be taken to the *Home* tab.

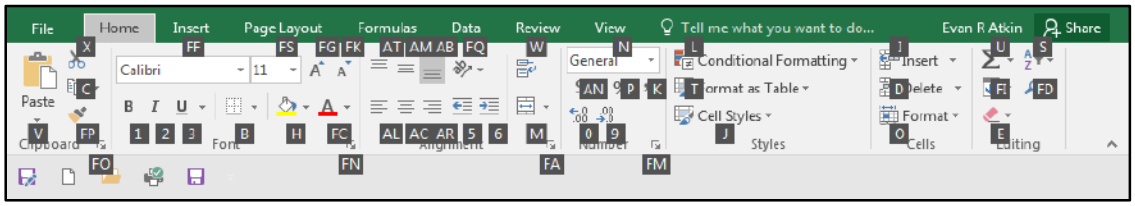


Figure 35 - Pressing H Selects the Home Tab

Controlling the Visual Appearance of your Spreadsheet

Excel 2016 has a number of features available to control the visual appearance of your document.

Note: **Ensure Readability** by dividing large blocks of text into smaller more manageable sections, avoid complex sentences, use sans-serif font at approximately 12 points.

Paint Bucket Tool

The *Paint Bucket* tool allows you to draw attention to a certain part of the spreadsheet. The paint bucket tool can be found on the *Home* tab in the *Font* category.

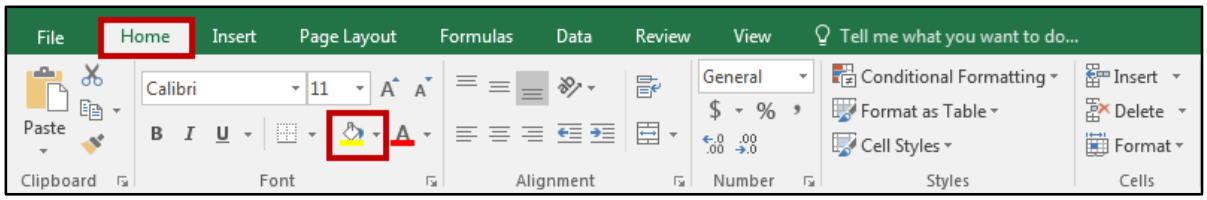


Figure 36 - Paint Bucket Tool

Fonts

You can determine what font you want included within your spreadsheet. The active font may be changed in the *Font* category under the *Home* tab.

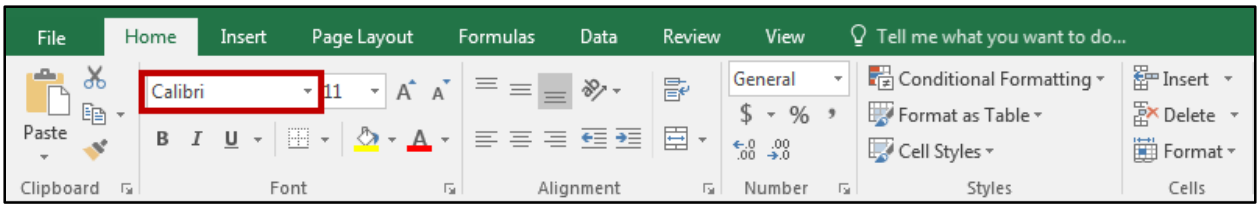


Figure 37 - Font

The following fonts are considered easy to read: *Arial, Verdana,* and *Helvetica*. Fonts that are bold make the words appear larger. The *Bold* button is found on the *Home* tab in the *Font* category.

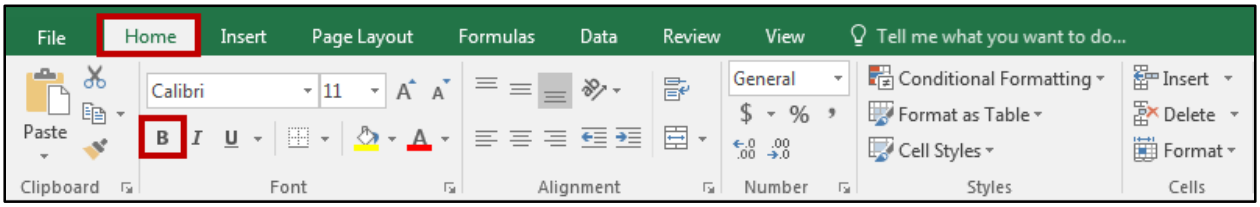


Figure 38 - Bold Button

Font Color

This tool gives you the ability to change the color of your text. You will find this tool on the *Home* tab in the *Font* category.

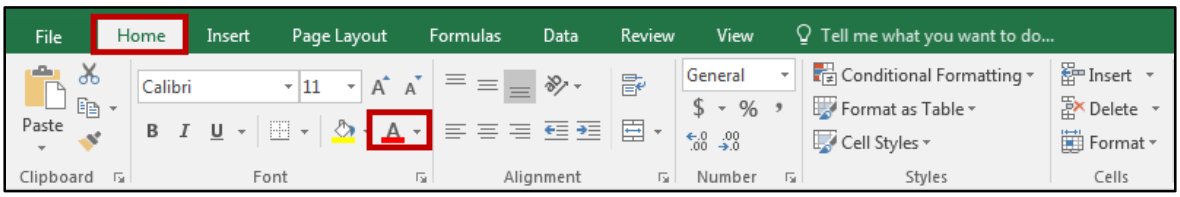


Figure 39 - Font Color

Note: Avoid Color Coding color alone is not sole means of conveying important information.

Note: Sufficient Color Contrast between foreground and background elements. Also, background does not overpower text (e.g. PowerPoint, Web page, etc.).

Cell Spacing

Cell Spacing will increase/decrease the amount of space within a cell. The following instructions explain how to adjust the size of the cell:

1. To increase/decrease the height of the cell, hover your mouse **between the numbers** on the left side of the spreadsheet so that it appears as a double-arrow.

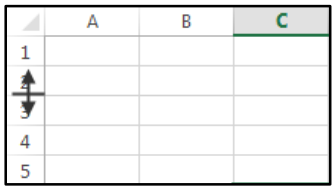


Figure 40 - Increase/Decrease height

2. Click and drag your mouse **up or down**. This will change the height of the cell.
3. To increase/decrease the width of the cell, hover your mouse **between the letters** on the top of the spreadsheet so that it appears as a double-arrow.

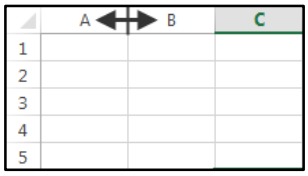


Figure 41 - Increase/decrease width

4. Click and drag your **mouse** to the left or right. This will adjust the width of the cell.

Zoom

The *Zoom* tool magnifies the spreadsheet on the screen, and can be found on the *View* tab in the *Zoom* category. To change the zoom magnification:

1. From the *View* tab, click **Zoom**.

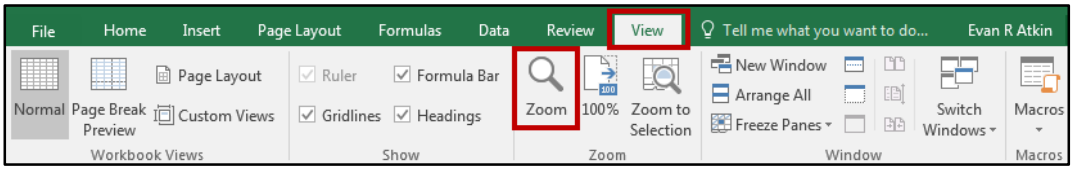


Figure 42 **- Zoom**

2. Select your preferred **Zoom Magnification**.

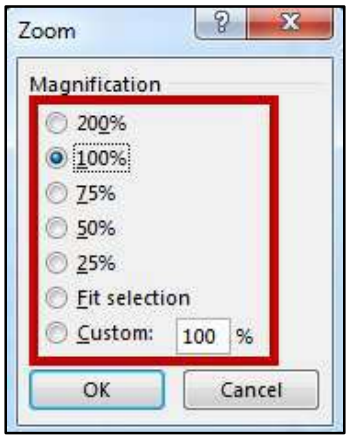


Figure 43 - Preferred Magnification

3. Click **OK**.

Note: This will not change the appearance of the spreadsheet when it is printed.

Zoom to Selection

The *Zoom to Selection* button can help to improve accessibility for users by increasing the size of text on the screen. The following explains how to use this feature:

1. Select a **cell** on the spreadsheet.

Customer	First Name	Last Name	City
1	Ken	Smith	Acworth
2	Sharon	Cook	Kennesaw
3	Mike	Bryant	Marietta
4	Amanda	Elliot	Acworth
5	Susan	Allen	Kennesaw

Figure 44 - Click on the cell

2. Under the *View* tab, click the **Zoom to Selection** button.

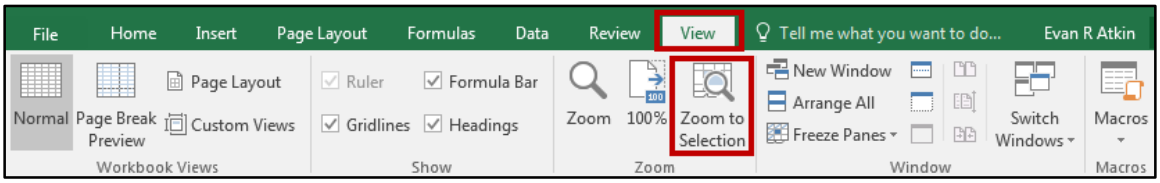


Figure 45 - Zoom to Selection

3. The spreadsheet will zoom to the selected cell.

Customer	First Name	Last Name	City
1	Ken	Smith	Acworth
2	Sharon	Cook	Kennesaw
3	Mike	Bryant	Marietta
4	Amanda	Elliot	Acworth
5	Susan	Allen	Kennesaw

Figure 46 - Zoomed in Selection

4. To return to the normal view, click the **100% button**.

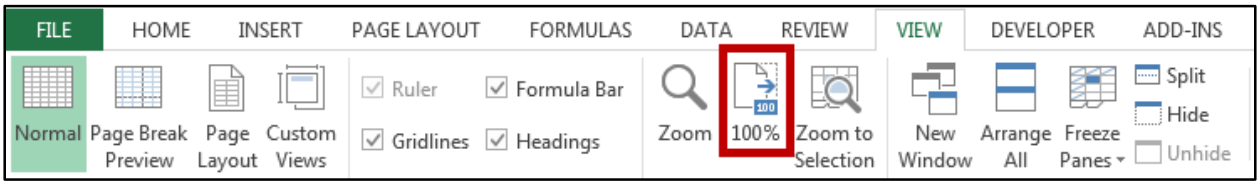


Figure 47 - 100% Zoom

Best Practices

The following should always be considered when developing a spreadsheet to make it accessible to everyone.

Page Layout

Place the data on a spreadsheet so that it appears tightly connected together. It is best to avoid spacing data on the spreadsheet with blank cells, blank rows, and blank columns.

Note: Ensure Readability by dividing large blocks of text into smaller more manageable sections, avoid complex sentences, and use sans-serif font at approximately 12 points.

Alternate Text (alt text)

Be certain to use *alt text* for your graphics so that those with visual impairments will be able to understand the purpose of the graphics in the document.

Note: **Use Text Equivalents (ALT Text)** for every non-text element such as image, chart or graph (e.g. A clear, concise description of 100 characters or less that is provided via *Format Picture*). If ALT text *alone* is insufficient, provide a Long Description in the surrounding text or as separate document.

To add *alt text* to a graphic in *Excel*, follow the instructions below:

1. Right-click the **graphic**.

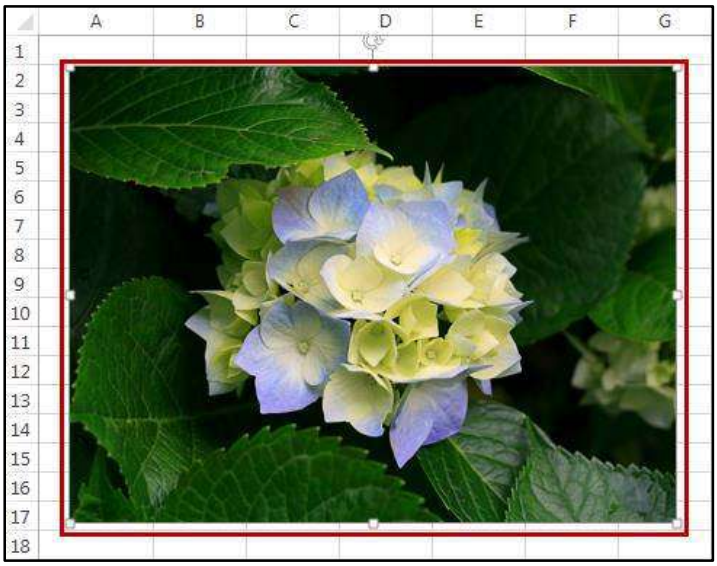


Figure 48 - Right Click on the Graphic

2. A menu will appear. Select **Format Picture**.

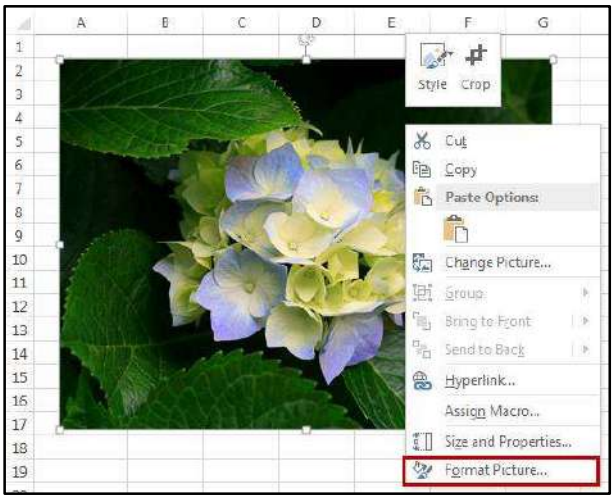


Figure 49 - Format Picture

3. The *Format Picture* window appears. Click the **Size & Properties** icon.

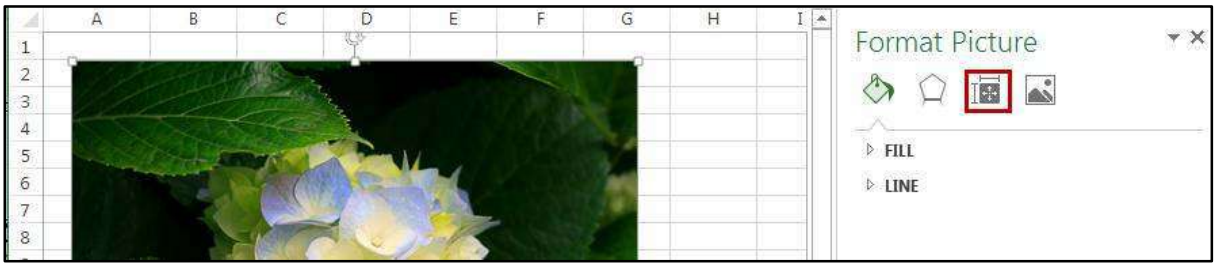


Figure 50 - Size & Properties

4. The *Size & Properties* options will appear. Click on **ALT TEXT**.

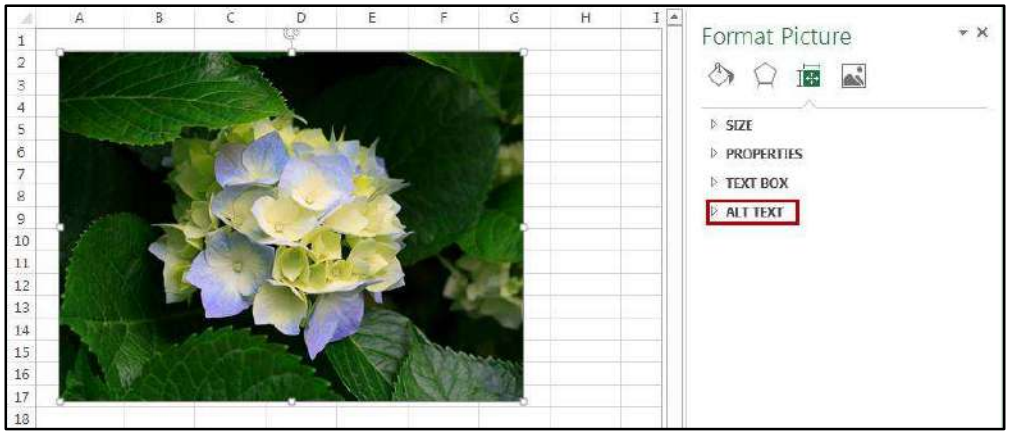


Figure 51 - ALT TEXT

5. The *ALT TEXT* window will open. Enter your **title and description**.

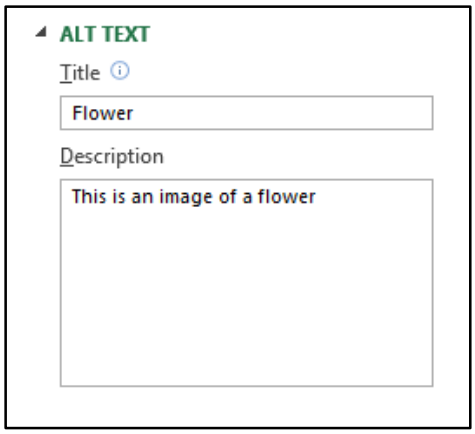


Figure 52 - Title & Description

6. Click the **Close** button.

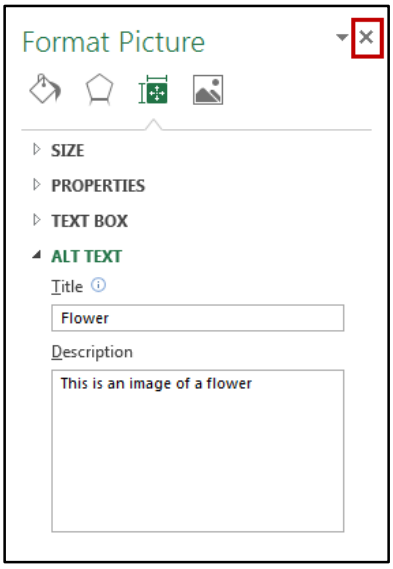


Figure 53 - Close Button

Note: Remember the following when developing *alt text*:

- Use concise wording (do not exceed 100 characters).
- Avoid sentences and capitalize only the first letter.
- Avoid punctuation.
- Avoid bold or italicized formatting.

Font Size and Color Schemes

Remember the following when developing spreadsheets so that they will be easily accessible.

- Make all font sizes at least ten points.
- Avoid using light or pale font colors with light backgrounds within a cell.
- Limit the use of the following font variations: *bold, italics,* and *capital letters.*

Note: Ensure Readability by dividing large blocks of text into smaller more manageable sections, avoid complex sentences, and use sans-serif font at approximately 12 points.

Note: Avoid Color Coding. Color alone is not a sole means of conveying important information.

Note: Have **Sufficient Color Contrast** between foreground and background elements. Also, make sure the background does not overpower text (e.g. PowerPoint, Web page, etc.).

Spreadsheet Structure

The following explains how to better structure your spreadsheet for accessibility:

Headings

When developing the spreadsheet, be certain to use descriptive headings for rows and columns. Also, use headings for different sections of data on the spreadsheets. This will help people with screen readers to quickly and easily understand each section of the spreadsheet without having to read the details in each section.

Note: Use **Semantic Structure (or Styles)** to create structure in Word, Open Office, HTML, etc. Heading 1 for Section Heading; Heading 2 for all Sub-Section Titles, ect. Also, Strong (structural equivalent of bold); Emphasis (structural equivalent of italics). Other Style types are available, as needed. Table of Contents should be provided based on the Heading structure; Table of Figures, if needed.

Hyperlinks

When inserting a hyperlink into a spreadsheet, the hyperlink will be more effective if the user sees a descriptive title for the URL. For example, if you have a link to Kennesaw State University in your spreadsheet, it would be more effective to use *Kennesaw State University* instead of non-descriptive text such as, *Click Here*.

Note: Descriptive Hyperlinks must make sense out of context; avoid vague descriptions like *Click Here* or *Email Me*. Avoid using the URL. Instead, hyperlink text should describe the destination: website name, document name, or other resource.

In *Microsoft Excel*, the hyperlink button is found on the *Insert* tab in the *Links* category.

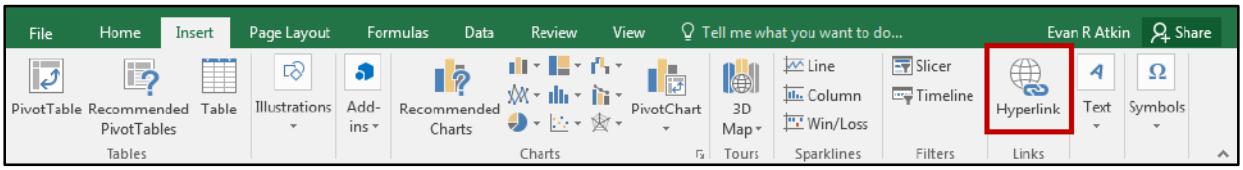


Figure 54 - Hyperlink

To insert a **Hyperlink:**

1. Select the **cell** that you wish to add the hyperlink.

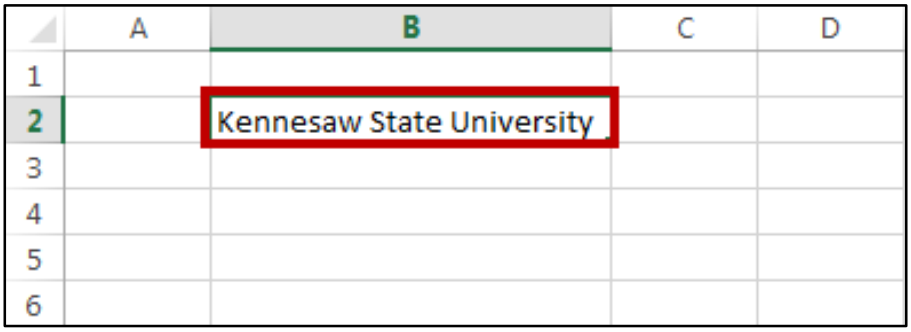


Figure 55 - Select the Cell

2. On the *Insert* tab, click the **Hyperlink** icon.

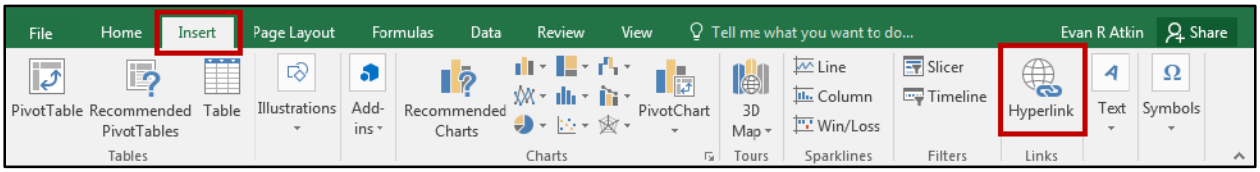


Figure 56 - Hyperlink

3. The *Insert Hyperlink* window will open. Click **Existing File or Web Page**.

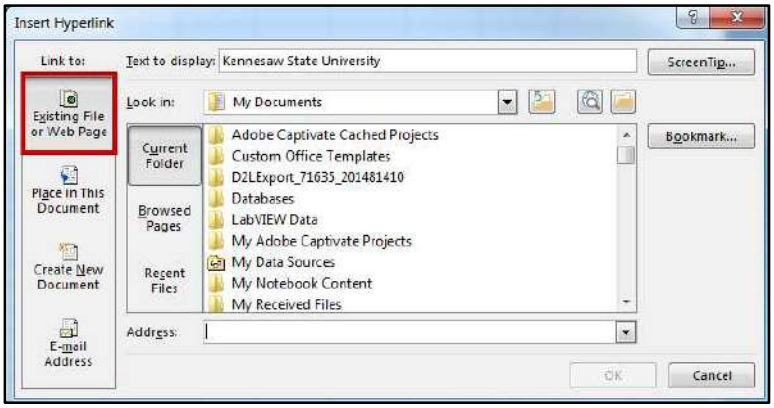


Figure 57 - Existing File or Web Page

4. In the *Address* field, enter **the website** that you wish to link to.

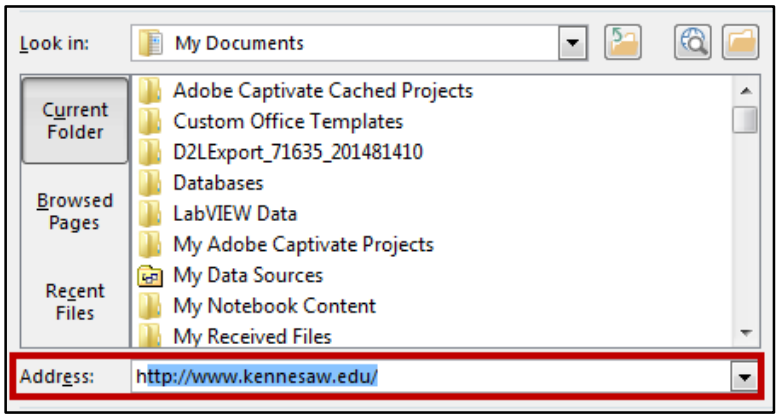


Figure 58 - Address Field

5. Click **OK**.

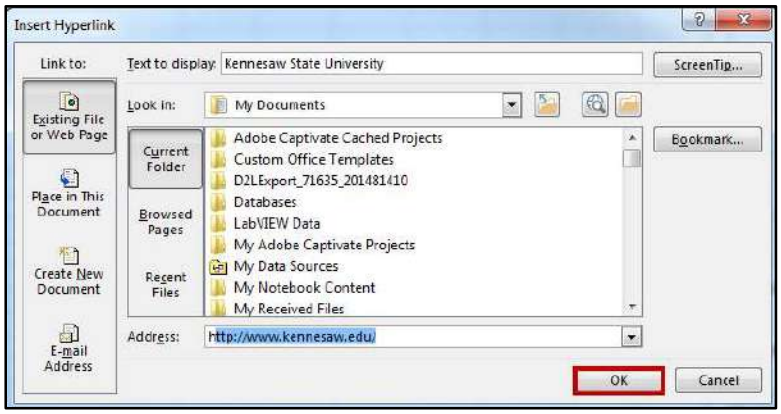


Figure 59 - Click OK

6. Your hyperlink will become active in the spreadsheet.

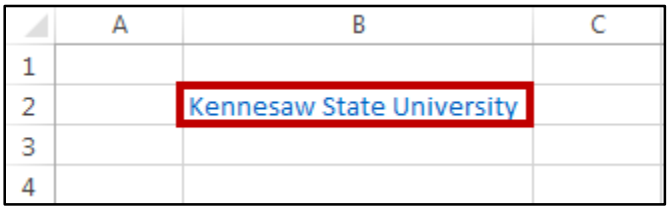


Figure 60 - Active Hyperlink

Graphs and Charts

Users of screen readers will not be able to see graphs and charts created with Excel. Consider providing tables with words and numbers as an alternative. When including a graph and/or chart on the spreadsheet, be certain that it is effectively labeled.

Sorting

Often, it can be effective to organize and analyze data within the spreadsheet using the Sort feature. The following explains how to sort:

1. Select the **data** to be sorted.

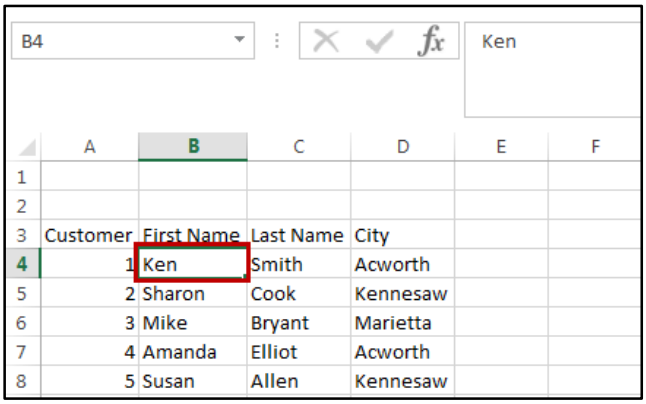


Figure 61 - Selecting data

2. On the *Home* tab, click the **Sort & Filter** button.

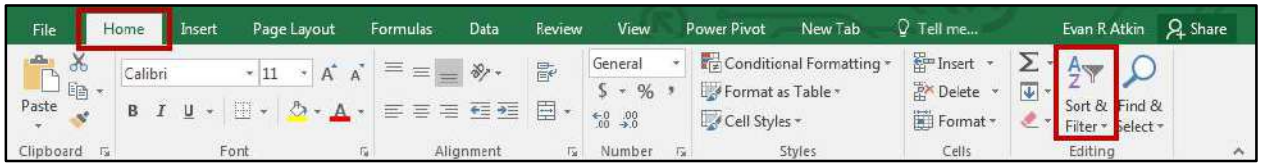


Figure 62 - Sort and Filter

3. The *sort menu* will open. Select your preferred **sorting option**.

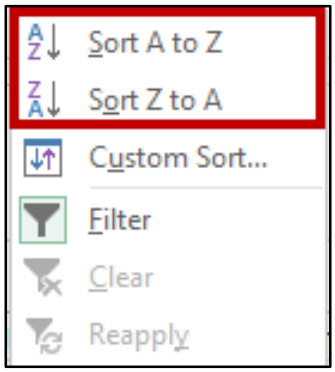


Figure 63 - Sort

Worksheets

To make worksheets more accessible, it is important to give each sheet a meaningful name (the default names are *Sheet1*). In *Figure 64*, the worksheets have been renamed *Customer Information*.

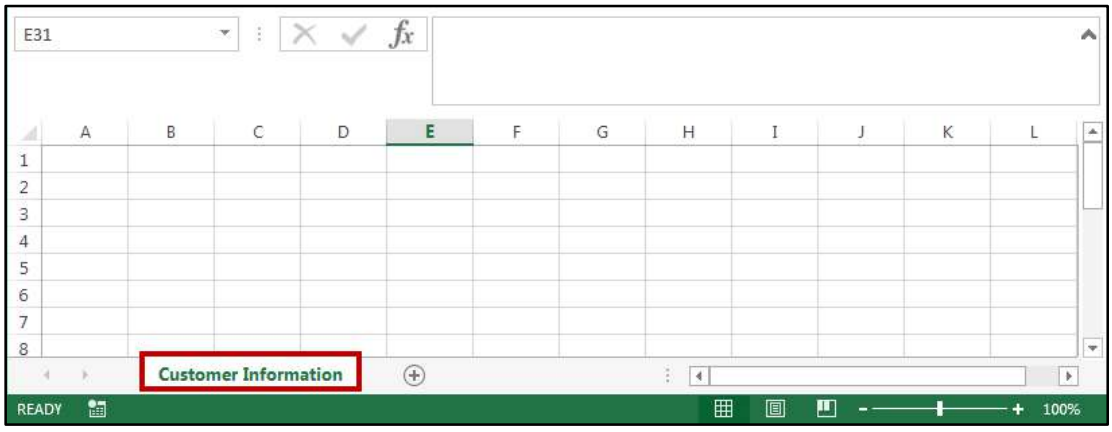


Figure 64 - Customer Information

The following instructions explain how to rename the worksheet(s):

1. Right-click on the **Sheet 1** tab.

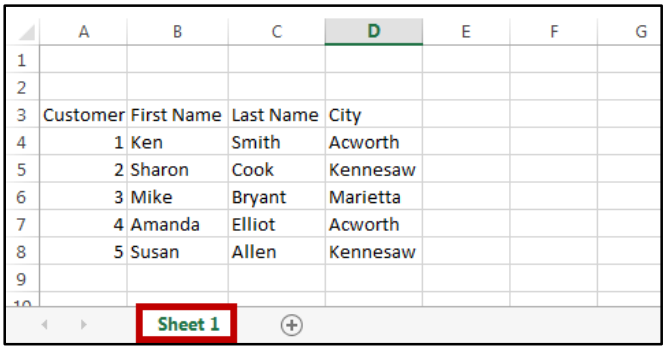


Figure 65 - Sheet Name

2. Click on **Rename** from the menu that appears.

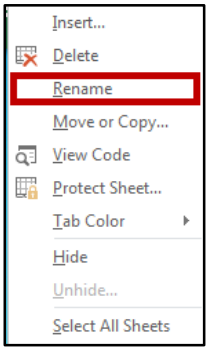


Figure 66 - Rename

3. The tab will become selected. Type the **new name** for the tab.

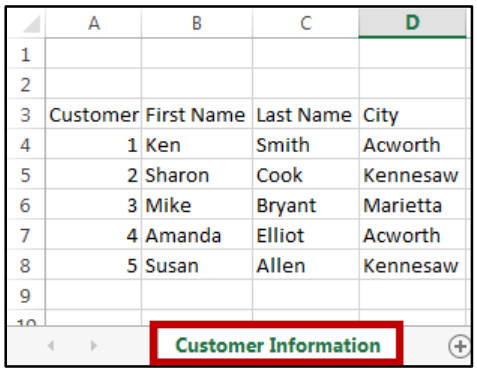


Figure 67 - Customer Information

4. Press the **Enter** key on the keyboard.

Accessibility Checker

The accessibility checker will scan your spreadsheet to check for potential accessibility problems. The following explains how to use this tool:

Note: **Accessibility Checkers** *always* use the software's built-in Accessibility Checker (Word, Open Office, Adobe Acrobat, Excel, PowerPoint, etc.). Follow the Repair recommendations provided by the Accessibility Checker to fix errors.

1. Click the **File** tab. The *Backstage* view will appear.
2. On the *Info* tab, click the **Check for Issues** button.

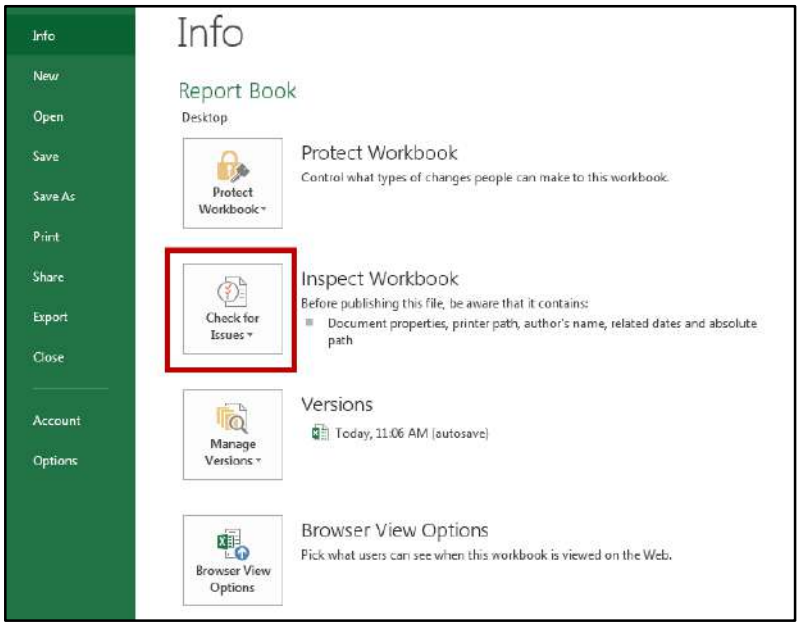


Figure 68 - Check for Issues

3. Additional options will appear. Click **Check Accessibility**.

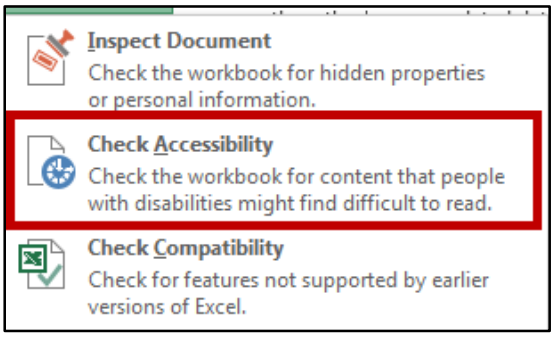


Figure 69 - Check Accessibility

4. A report will be created for you containing a list of possible accessibility issues within your spreadsheet. Click an **item** to receive additional information on the issue.

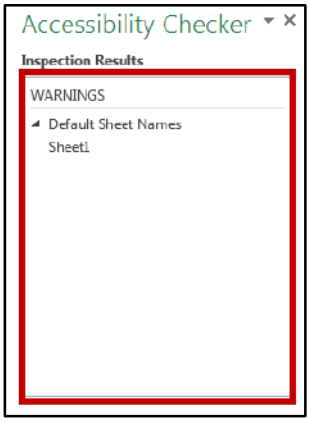


Figure 70 - Accessibility

Additional Help

For additional help or installation issues, please contact the KSU Service Desk:

KSU Service Desk for Faculty & Staff

- Phone: 470-578-6999
- Email: service@kennesaw.edu
- Website: http://uits.kennesaw.edu

KSU Service Desk for Students

- Phone: 470-578-3555
- Email: studenthelpdesk@kennesaw.edu
- Website: http://uits.kennesaw.edu