

Tools and Technologies for Tech Writers 2024

Homework Helpers

Notices

This document was prepared as a handout for the Middlesex Community College Tools and Technologies for Technical Writers class, Winter semester 2024.

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Homework Helpers

This course is very fast paced. A lot of the instructions are vague. This document is an attempt to flush out some details if you need it.

I reiterate this many times over the course: I am covering too much, too fast.

Every single topic I cover could be a full course unto itself.

The intention is that you learn a bit about how you need to learn whatever new tools come your way in the workplace. Do you need a few tutorials? Do you need to buy a book? Do you need someone to train you, hands on?

The other intention is that you figure out if there are tools you hate, so you know to avoid those when job hunting.

Note: This document is a work in progress. I am going to add to it chapter by chapter.

Homework requirements

For each assignment, I am looking to see if you tried to use the tool.

It is impossible to master any of these tools in a week.

- I do not expect you to get everything correct.
- I do not expect you to become an expert.
- I do not expect this to be an excellent example of your writing abilities.
- I do not expect the assignment to be coherent or logical. It could all be Lorem Ipsum with some formatting applied.

My intention is that it only takes an hour or two to make a simple file (or more, depending upon the tool) that includes the following:

- At least one heading
- · A paragraph or two
- · An unordered list
- A numbered list
- A table
- · Some inline formatting
- · A link to an external file
- · An image

This text can be completely nonsensical. I just want to see if you tried (not even succeeded) at using the tool.

Building Blocks on page 6 explains why I selected this set of items.

Suggestion on page 9 shows an example set of content.

These are the minimum requirements.

If you choose, you can attempt to use each homework assignment to make a portfolio piece. Pick something to document and write it up in whatever the tool of the week is. One of the easiest things

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to document might be something about whatever tool you are using. If you ask, I will review your content for writing style and offer suggestions.

Building Blocks

There are a handful of tasks you need to learn how to do in any program you work in.

Every tool, and every implementation of a tool, has a unique way of doing things. For example, many content sets require some way to link to the software application they are documenting. This is so if you click the help button in your application, a specific page in your output appears. Most tools offer a way to do this, however how you do it is unique to the tool. Also, what is specifically required is unique to your work place. You may need to set up a mapping file that links application IDs to help IDs, and then do something to add the help IDs to your source files so the "magic" works in the output. You may just need to ensure that output files are named a certain way or put in a certain folder.

That said, there are a relatively small list of things that you need to be able to do in every tool. If you can do these things, you can use the tool.

As a Writer

If all you are concerned with is writing, these are the basic tasks you need to know how to do.

Required

This is the bare minimum you have to be able to do in any tool to be a technical writer.

The English language is divided into chunks of text. These chunks are often paragraphs. You need to know how to make a new paragraph as needed. This is usually as simple as pressing **Enter**, but could require a bit more work, such as remembering to have a blank line between paragraphs in lightweight markup, or having to wrap the text in a element in HTML.

Format the content

As you author content, you need to add formatting to it to help present the information better. You need to know both what formatting to apply, as well as how to do it.

Some of this is subjective, such as determining if the content work better as a series of paragraphs, a bulleted list, or a table.

Some of this should follow your company's style guide, such as when to apply inline formatting, and knowing the name of the style for a third level heading.

Some of this is knowing how your tool works.

When I'm describing adding formatting here, in general, I'm referring to applying the formats, styles, or template in your tool. Designing what your format actually looks like is generally something different.

Make text a title

The way we structure content in English, your content needs a title. This could be a chapter title, a book title, a section title, or a topic title. This

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could be done by applying a style to a paragraph, filling in the correct field in a form, or making sure the line of text has a line of equal signs underneath it.

Make a list

A lot of technical content requires lists of information: lists of prerequisites, lists of options, lists of things to do next. In many ways, this is just a specialization of *Format the content*. However, list items are very common.

Make a procedure

Many would state that this is the core of technical writing. Our main job is to tell people how to do things. This is often done via a procedure. This could be as simple as making a numbered list, or following a set of styles prescribed by your style guide, or the complex structure of a DITA task topic. Similar to *Make a list*, this is a specialization of *Format the content*, but there are often special tools or techniques for working with procedures.

Make a table

Tables are a great way to present certain types of information. They also tend to be very complicated. You need to learn how to insert, format, etc. Again, it's another specialization of *Format the content*, but they are tricky. If you're working with lightweight markup, it can be the most complicated formatting. Most tools have wizards and various tools that take some time to learn.

Insert an image

A picture is worth a thousand words. You will need to include images in your content. Different tools do this in different ways.

In general, there are two ways you need to consider inserting images: inline or separately. An inline image is used often in procedures to assist

with instructions such as "Click the Save () icon".

For larger images, you need to insert them so that they stand alone. That could be inside of a figure with a caption, or just on a separate line. In rare cases, you may configure text wrapping to go around the image.

Insert a link

Content these days usually needs to refer to other things. This can be links to external web sites or links to other parts of your content. (Internal references are often called *cross-references*.)

Linking can be something you have to control manually, or it might be something that can be autogenerated by your tooling. It can also be something you may have to maintain over time, or maybe the tool helps you keep the links working.

Add inline formatting

Besides formatting giant blocks of text, such as paragraphs, lists, and tables, you often need to apply formatting to specific words or phrases in your giant blocks of text. Common examples include making things you click in your software bold, making variables italic, and making command names use a monospace font.

Structure your content

Most likely you don't have a lot to say about the big structure, such as new help systems, new books, or new output formats. However, within the area where you do have control, you will need to know how to structure your content. By structure, this generally means what makes

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> a new section or chapter, and how section headings are nested. This could be making sure you use the right heading level style or could be structuring a bunch of topics into something that makes a table of contents.

Occasional

You may or may not need to do these tasks. These depend upon your tooling, your implementation, and how structured your work place is.

Make a new thing

Most of the time, as a technical writer you are working with content that is already semi-established. The User's Guide already exists, you're just adding new sections to it. You very rarely make a new thing. Also, there's usually a senior writer or information architect who minimally has extremely strong opinions and potentially corporate guidelines to follow about how new large things (new books, new help systems, new top level sections) can be created.

However, if you are working in a topic based system, you will probably often need to make new topics.

Update the table of contents

You will have to structure your content. Depending upon your tooling, your table of contents could be automatically generated, or something you have update. You may also need to be aware of your heading structures to make sure the table of contents works correctly. For example, some tools can't handle if your headings go from heading level 1 to heading level 3, skipping heading level 2.

Indexing or tagging for search

This may not make an actual index any more, but you probably need to do something to improve search results. This can be marking index terms, adding keywords, or adding tags.

links

Add context sensitive If you have a context sensitive help system, you need to add the markers or metadata or whatever to ensure your software can open the right page in your content. This could be something complicated to identify a help ID, or just making sure a file is named something specific.

Work with reuse

This is entirely tooling dependent, but if your tool allows for reuse, you should probably take advantage of it. Reuse can be many different things. You could have certain words or phrases that need to be inserted a specific way, such as version numbers or product names. You could have a way to share topics or chapters between different books. You could be able to reuse specific paragraphs, or any other defined chunk. You will need to learn both how to do the reuse in the tool you are using, and how your company maintains and organizes reused things.

text

Work with conditional Some tools allow you to mark content so that it only appears when certain conditions are met. This means you can mark content that only appears for specific outputs, such as between HTML or PDF output, or based on product or component.

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Suggestion

Make a simple set of content that you can keep reusing in different tools.

Every single one of these homework assignments can be portfolio pieces. You can write complicated instructions on how to do things to show off what a great writer you are.

However, to pass this course, all you need to do is try to make all the basic building blocks in different tools.

When trying to learn the different tools, it might be easier if you just have text you are copying and pasting instead of trying to write something new *and* learn how to format something in yet another tool.

I would very much prefer you didn't cut and paste the following, but this is the minimal amount I'm looking for:

Look a Title

The above is a title. It could be formatted as something specifically labeled a title, or maybe just a heading level one.

This is another new paragraph with something **bold** and *italic*. I now have two separate paragraphs, and have some inline formatting.

- I also need a list.
- · This is a second list item.

With a paragraph that lines up with the list item.

· And look, a third list item.

I have proven I can make an unordered list. And I can make another paragraph. Oh. I need a link to something, like http://www.google.com.

- 1. Now I need an ordered list.
- 2. I can use this for procedures.
- **3.** Or to identify items in an image I don't want to translate.

There. Proof I can make a numbered list.



And there is an image. And I remembered to add alternative text.

Table Head 1	Table Head Column 2
Column 1	Column 2
More Column 1	More Column 2
And a third row for fun	With one more column 2

Assumptions

These instructions assume the following:

- You have already cloned the class repository and you are keeping it synced.
- You have Notepad++ installed.
 - $Instructions \ are \ in \ {\tt Handouts/tips_and_tricks.pdf}.$
- You have modified Windows File Explorer to always show known file type extensions.
 - Instructions are in Handouts/tips_and_tricks.pdf.

Week 1: Getting Started with Git

The homework for week 1 is to set up your GitHub account.

The homework helper for this week is very minimal because I've tried to have a lot of information in various places.

mcc_tools_tech\Week01-IntroGitHub\Week1-IntroGitHub.html presentation | use during class.

Yes, you are going to have access to all the presentations. While there are versions in existence for the entire class, so you can read ahead and be completely bored during class, but I am updating the presentations before each class, so things will change.

• mcc_tools_tech\Week01-IntroGitHub\using_git.pdf (*Using Git*) document that provides more detail than the presentation.

This document is also available in Blackboard.

- mcc_tools_tech\Handouts\git_cheatsheet.pdf (*Git Cheatsheet*) document that is more of a reference, but might give a detail in a different way that makes something click.
- https://drive.google.com/file/d/1ij3FnYD-0f0TFgDDzeVpo74udtSKuTGJ/view?usp=sharing A video I threw together in 2022 to help you get started with GitHub.

Everywhere it says "Winter2022", you should use "Winter2024".

Many times in the work place, the training information is slightly out of date. Enjoy learning how to adapt to slightly inaccurate directions.

Syncing Repos in GitHub – Another video about syncing repositories in GitHub I created in 2022.
 You probably don't need it for this week, but you'll definitely need it for next week.

Everywhere it says "Winter2022", you should use "Winter2024".

Week 2: Progressive Information Disclosure

This homework is just being familiar with editing text files.

Be aware that when you're working with computers you often have to deal with *reserved characters*. To make code work, certain words and certain characters mean very specific things.

For example, in our properties file, the equals sign (=) has a specific meaning. Each line of the properties file has the format:

Name = Value

So, whenever whatever is processing runs into a =, the processor does something special.

For most properties files, the end of a line indicates "done now". So a line break is a reserved character.

Sometimes, you still need to use those special, reserved characters.

To do this, you need to *escape* the special or reserved character. This means you use a different reserved character to say "what follows should be emitted as what it is, don't treat it like the reserved character".

How you escape a reserved character is unique for every language. In general, I just search the internet for "How to escape equals sign in Java properties file" and find out that I generally need to use backslashes (\).

Be aware that the automation I am using is very simplistic. I cannot pass HTML in the properties file and have it work in the generate HTML file.

Week 3 Microsoft Word

Using styles to try and convince Microsoft Word to behave.

The majority of Microsoft Word users are not power users. Most people learned how to write a paper with maybe some running headers and footers and a few cross-references. While you may use it every day in a workplace, you are most likely starting from a template or by editing an existing document.

To produce quality content, you need to make sure you are applying your company's style guide. You need to produce content that is branded appropriately, and follow whatever guidance. You need to use the correct fonts, the right spacing, make sure figures have the correct labeling, etc.

You need to learn to both read the style guide and how to properly apply the styles.

Technically you can be aware of whatever the formatting is, and manually apply it to every paragraph as necessary, but then you're spending more than half your time applying formatting. With styles, you just have to apply the correct style.

Add Template to Custom Office Templates Folder

By default Microsoft Word has a specific folder where it expects to find templates. You need to add the template to this folder.

You should search the internet for the location of the Custom Office Templates folder for your version of Microsoft Word and your operating system.

Copy mcc_tools_tech/Week03-WordOffice/Homework/MCC_WordTemplate.dotx to the Custom Office Templates directory for your system.

If you cannot find this location, you can make your own custom one. Be aware that Microsoft Word can only configure one folder for custom templates. If you change it to a custom directory, you'll have to always put templates here.

Convince Word to find personal templates

These instructions will be different for every version of Word, but hopefully these get you headed in the right direction.

Make sure you have Word templates (.dotx) in your Custom Office Templates, which is usually C:\Users\User Name\Documents\Custom Office Templates.

These instructions were determined using Microsoft Office 2021.

- 1. In Microsoft Word, select File > Options.
- **2.** Select **Save** from the navigation pane.
- 3. In the **Default personal templates location** field, enter the path to where your Word templates are located.
- 4. Click OK.

If all goes well, when you select **File > New**, there should be a **Personal** option.

If All Else Fails

If you are unable to find your Custom Office Templates folder or convince Word to use it, try this method.

- 1. Double-click the MCC_WordTemplate.dotx file.

 This should open a new (Document 1) Word document using the template.
- 2. Use File > Save As to save your file.

Technically, you probably just need to use **Save**, but I'd rather be safe than sorry.

Things to Remember

When completing the homework, remember the following.

· Follow the template guidelines.

Unless you are a sole writer at a startup, you are going to walk into a technical writing work place and you are going to have to follow the established styles.

Read the template. It tells you how to use it. (Or at least it tries to.)

- · Use the correct styles for the title.
- · Use the styles, not the default Word buttons.

Setup Your Word Document

When you create a new document using the MCC Word Template, it contains a whole bunch of descriptive text. It explains how to use the template.

While you could just use **CTRL+A** and then **Delete** to empty out the content and start from scratch, that also means you lose all the helper text, and the information that's set up.

 Replace the first paragraph ("Company Name") with the company name of the product you are documenting. If your content doesn't have a company, replace the text "Company Name" with Middlesex Community College.

Do not change the style.

2. Replace the text "Product Name" with the name of the product you are documenting. If your content doesn't have a product, replace the text "Product Name" with Tools and Technologies.

Do not change the style.

- 3. Replace the text "Document Title" with the title of your content.
 - Do not change the style.
- **4.** Replace the text "Version" with the version of your product. If you don't have one, use the text Week 3.
- **5.** Skip over the table of contents and go to "About this template" on page 3.

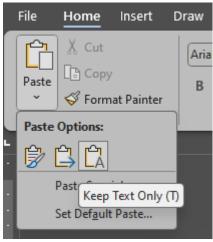
6. Select all the text in the rest of the document, starting with "About this Template" and delete it. Remember that you don't want to delete the last paragraph. (This may be outdated information, but better to be safe than sorry.)

Add Content to your Word document

After preparing your Word document, you can start entering your content.

You can reformat content you have already written, or you can write new content.

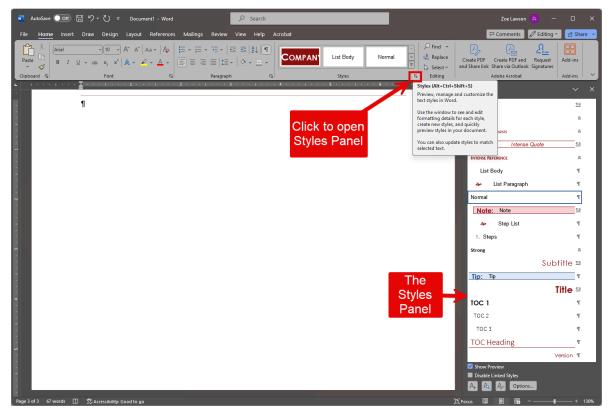
Tip: If you are copying from another Word document, use the Paste option Keep as Text.



This makes sure you only get the words, and not extra formatting bits that can easily confuse Word templates.

Make sure you have the Styles panel open.

• On the Home ribbon, click the **Styles** icon to open the Styles panel.



This Styles panel has **Show Preview** enabled so you see a preview of the style, not just the name of the style.

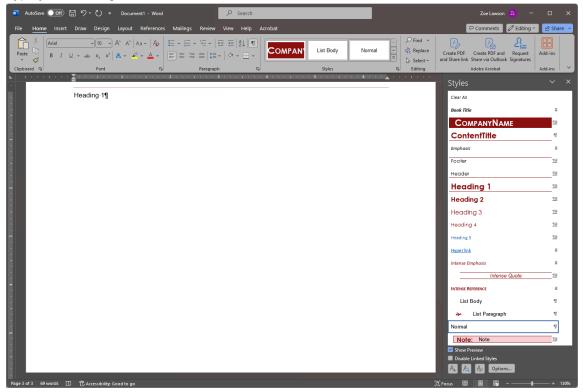
Add a heading to the Word file

After setting up your Word document, you should add a level 1 heading.

You should have a Word document using the MCC Word Template open. Your cursor should be on the first line of page 3 and there should be no content after your cursor.

If your document is not in this state, review Setup Your Word Document on page 14

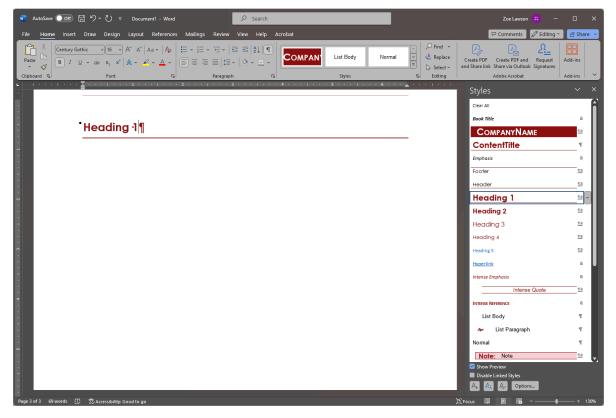
1. Type your heading text.



Notice that the style Normal is highlighted in the Styles panel.

With your cursor still in the paragraph with your Heading 1 text, select the Heading 1 style.See that the formatting of the paragraph changes.

Your file should look like the following:



You are now ready to add a paragraph of text.

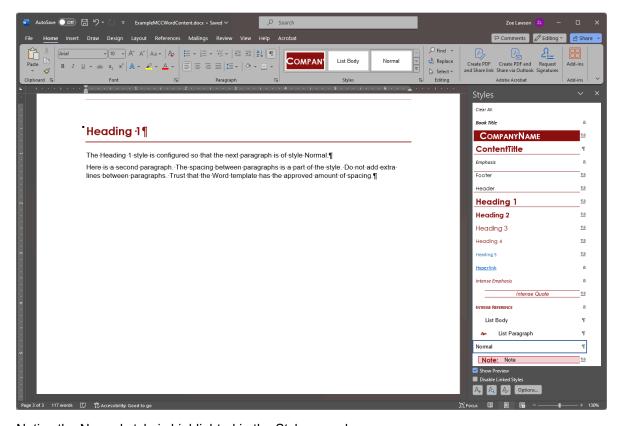
Add a paragraph to the Word file

After the heading, insert a paragraph.

Your cursor should be at the end of your first heading.

- 1. Press Enter.
 - This creates a new paragraph. The Heading 1 style is configured so that the next paragraph is Normal, the main style for the MCC Word Template.
- 2. Enter the text of your paragraph.
- 3. Press Enter to add a second paragraph.

You should have a heading with two paragraphs, similar to the following:



Notice the Normal style is highlighted in the Styles panel.

Add inline formatting to the Word file

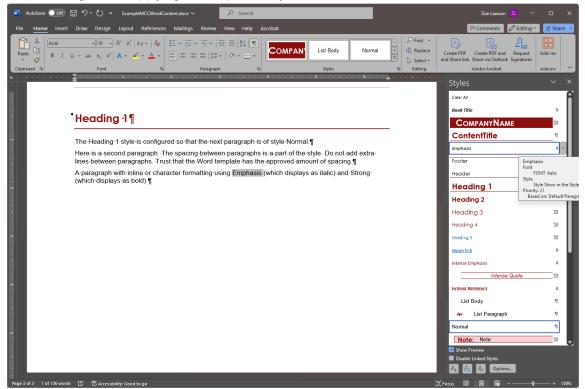
Inline or character formatting in Word is done with character styles. Character styles are labeled with **a** in the Styles panel.

You have a paragraph in your Word file.

1. Make sure you have content in your Word file that you want to change the inline formatting of part of it.

I find it easier to apply character formatting in Word to text that already exists.

2. Highlight the text you want to format and select a Character style. The following shows applying the Emphasis style.

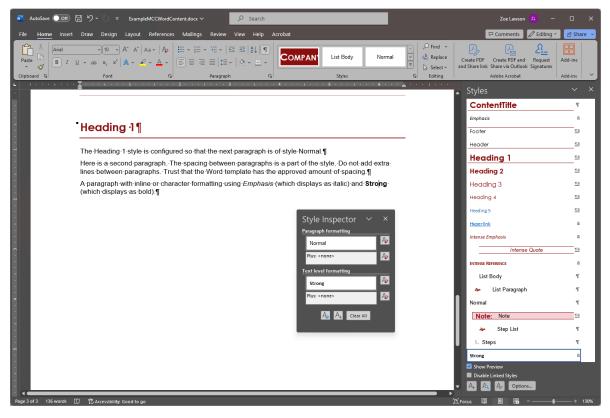


This capture was taken before actually selecting the Emphasis style, so the formatting of the highlighted word hasn't changed yet.

You now have inline formatting marked.

The following shows the Word document with both the Emphasis and Strong character styles applied to content. Also, the cursor is in the text with the Strong character style applied. The Style

Inspector () is open so you can see what styles are applied where your cursor is.



You are ready to make an unordered list.

Add an unordered list to the Word file

Unordered lists are sometimes known as bulleted lists.

Important: Remember, do not use the Bullets tools on the Home ribbon.

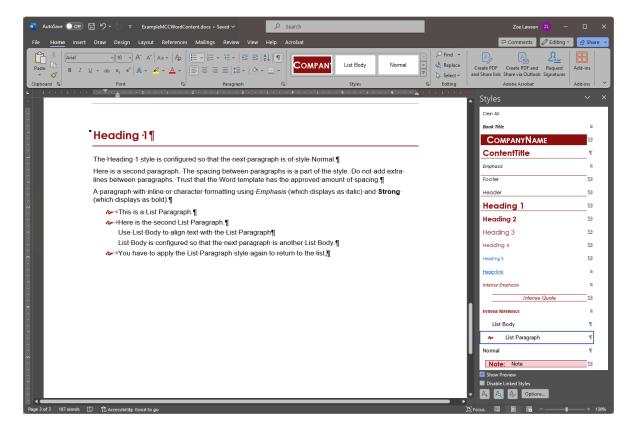
You need to use the appropriate style for the template.

- **1.** Have your cursor at the start of a new paragraph.
- 2. Select the List Paragraph style.

This should indent the paragraph and apply the red squiggle.

- 3. Press Enter to create a second bullet.
 - List Paragraph is configured so that the next paragraph is another List Paragraph.
- **4.** Use the List Body style to have a paragraph aligned with the text of the List Paragraph.

Your list should resemble the following:



Add an ordered list to the Word file

Unordered lists are sometimes known as numbered lists.

Important: Remember, do not use the Bullets tools on the Home ribbon.

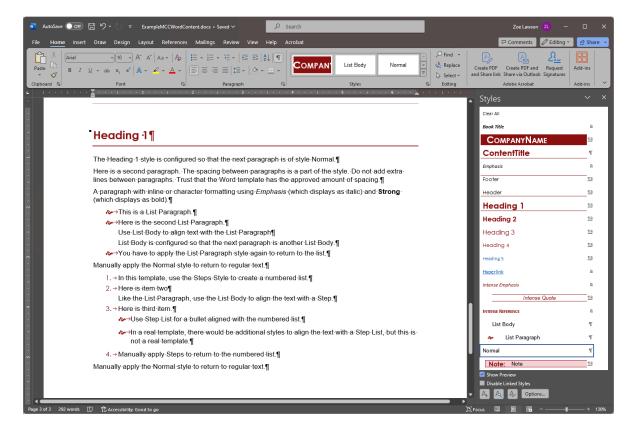
You need to use the appropriate style for the template.

- 1. Have your cursor at the start of a new paragraph.
- 2. Select the Steps style.

This creates a numbered list in the correct style for this template.

- 3. Use the **List Body** style to create a paragraph that aligns with the step text.
- 4. Use the Step List style to create a bulleted list that aligns with the step text.

Your list should resemble the following:

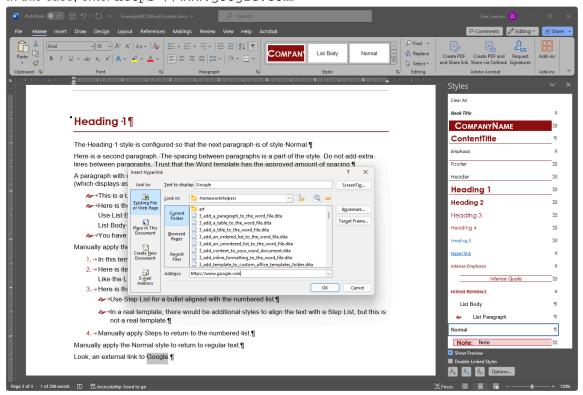


Insert an external link in the Word file

You often need to link to websites from your documentation.

- 1. Have your cursor where you want to insert your link.
- 2. Type the text for your link.
- 3. Select the text.
- 4. Press CTRL + K or from the Insert ribbon, click Link. The Insert Hyperlink dialog box opens. Notice that the Text to display field contains the text you selected.

5. In the Address field, enter the URL.
In this case, enter https://www.google.com.



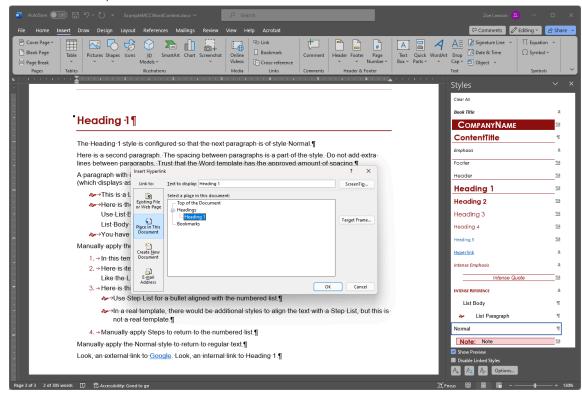
6. Click **OK** to finish entering the link.

Insert an internal link in the Word file

You often need to link to other headings in your Word document.

Word only lets you link to predefined locations. You can link to paragraphs formatted with the official Word heading styles or to bookmarks.

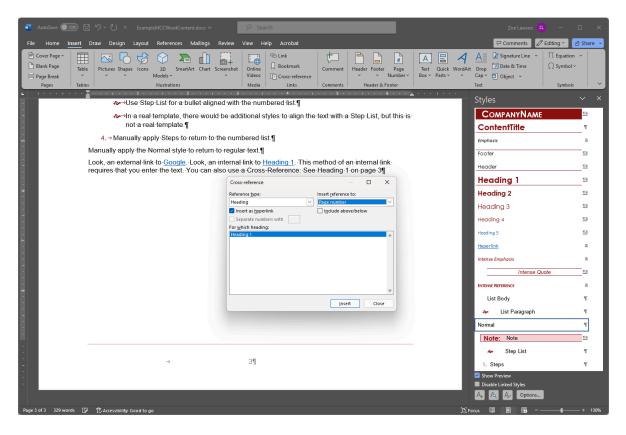
- 1. Have your cursor where you want to insert your link.
- 2. Type the text for your link.
- 3. Select the text.
- 4. Press CTRL + K or from the Insert ribbon, click Link.
 The Insert Hyperlink dialog box opens. Notice that the Text to display field contains the text you selected.



5. In the Link to list, select Place in This Document.

- **6.** Select a heading that exists in your document.
- 7. Click **OK** to finish entering the link.

Alternatively, you can use a cross-reference by selecting **Cross-reference** from the Insert ribbon. Cross-references let you choose between a set of style types, including headings. You can insert the heading text or the page number. You can also combine the two (manually typing on page) to have a "See heading on page" cross-reference. Cross-references should update if you change heading text after you Update References in the document.



Insert an image to the Word file

Images in Word files are tricky.

I believe it is technically possible to insert an image by reference, but generally Word pastes the image into the file.

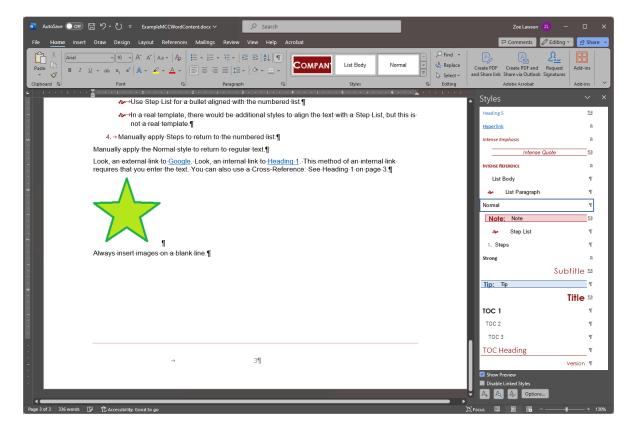
Word does not really support high-resolution images for print.

While Word does have some limited embedded image editing tools, do not use them. Always edit your image in a graphics editor. Don't use the resizing, cropping, or markup tools in Word. When you use the Word graphic tools, you lose image quality, and there is no guarantee how those edits will transfer to other tools. (For example when converting Word files to HTML using third-party tools like WebWorks ePublisher.)

Follow the guidance of your company's template.

I have never been able to get Word figure captions to work the way I expect. May you have better luck.

- Have your cursor where you want to insert your image.
 Whenever possible, insert your image in a blank paragraph. This way you might run into fewer issues with the image jumping pages.
- 2. From the Insert ribbon select Pictures > (Insert Picture From) This Device.
- 3. Navigate to the image you want to insert and select it.
- 4. Click Insert.

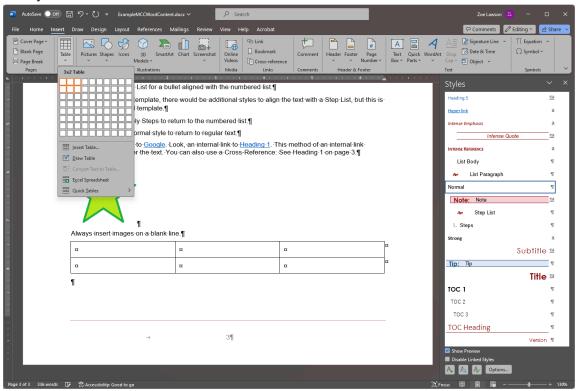


Add a table to the Word file

Tables are very useful for displaying data but can be complicated.

Unfortunately, I have not defined tables in the MCC Template very well. Hopefully if you ever have to work in Word, you will have a better defined template.

1. Similar to images, insert tables on a blank line.



2. From the Insert ribbon, select **Table** and select how many rows and columns you want to insert initially.

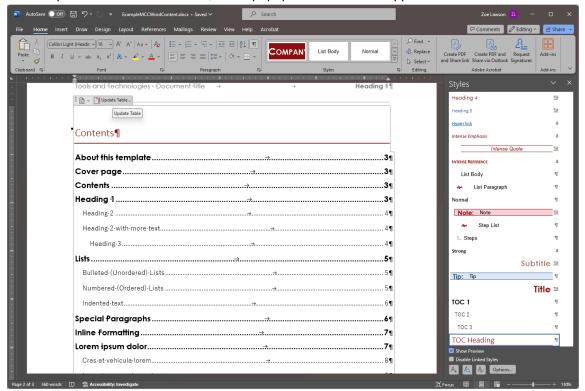
- **3.** If you have a well defined template, there are Table styles from the Table Design ribbon. These styles define heading rows, shading, etc.
- **4.** When you are in a table, continue using Styles. A well defined template will have special styles for table text.

Update references the Word file

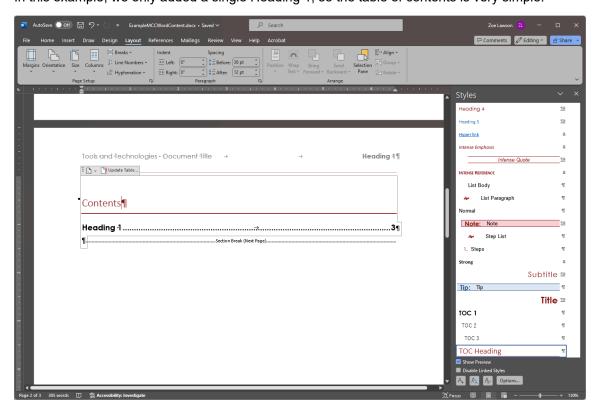
If you have anything interesting in your Word document, such as a Table of Contents or cross-references, you need to update them from time to time.

Unfortunately, these commands don't always work as well as they should, because Word.

1. If all you have is a Table of Contents, select the Table of Contents. At the top of the Table of Contents, some popup controls should appear.



Select Update Table and the table of contents should regenerate.In this example, we only added a single Heading 1, so the table of contents is very simple.

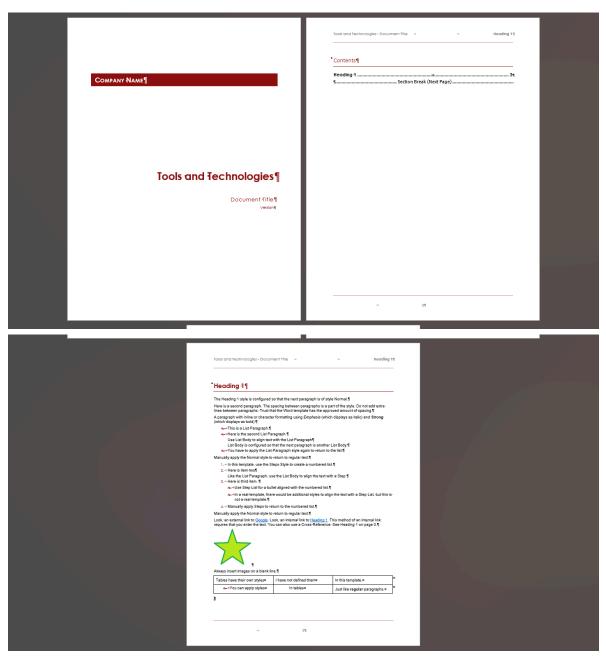


- 3. If you have other references, such as cross-references:
 - a. Select the entire document using CTRL + A.
 - b. Right-click the selected text and choose **Update Fields**.

If all goes well, all cross-references and page numbers update.

Example Word file

If you followed the previous instructions, your file should resemble the following.



Save your file and upload it to GitHub. If you need a refresher on working with GitHub, see <code>Handouts/git_cheatsheet.pdf</code>.

Congratulations! You've made a Word document using the MCC Template!

Week 6 GitHub Flavored Markdown

There are multiple flavors of markdown out there in the world. We are going to focus on GitHub Flavored Markdown.

These instructions should help you complete the minimum requirements for the homework.

These instructions should be used in conjunction with the information in the following files:

- mcc_tools_tech\Week06-LightweightMarkup\markdown.pdf
- mcc_tools_tech\Week06-LightweightMarkup\week6_Lightweight_markup.html

Make a md file

Markdown is a text file.

1. In File Explorer, right-click in the mcc_tools_tech\Week06-LightweightMarkup \Homework folder and select New > Folder.

This makes a new folder in the Homework directory. It should be called New Folder, and the text "New Folder" should be highlighted and ready to rename the folder.

2. Rename the folder YourNameHW.

For example, I would name the folder ZoeLawsonHW.

I will keep referring to the folder as YourNameHW.

- 3. Navigate into the YourNameHW folder.
- **4.** Still in File Explorer, right-click in YourNameHW and select **New > Text Document**. This makes a new text document in the YourNameHW folder. It should be called New Text Document.txt, and the text "New Text Document" should be highlighted and ready to rename the file.
- 5. Rename the text file YourName.md.

For example, I would name the file ZoeLawson.md.

You must change the extension to md.

You should receive a message stating If you change a file name extension, the file might become unusable. Are you sure you want to change it?.

6. Click **Yes** to change the file extension.

The file should be named YourName.md.

Congratulations! You have made a markdown file.

Open the md file in Notepad++

There are a few markdown editors out there, but we're going to use Notepad++.

In File Explorer, right-click YourName . md and select Edit with Notepad++.

If you have Windows 11, you may have to select **Show more options** before you can select **Edit with Notepad++**.

The blank file, YourName . md opens in NotePad++.

You are now ready to add your first heading or title.

Add a title to the markdown file

The first block you need to add is a title or heading.

Your blank file should already be open in Notepad++. If it isn't, see Open the md file in Notepad++ on page 32.

1. On the first line, type a # followed by a space, followed by your title text. For example:

```
# Look a Title
```

2. After entering the text of the title, make sure there is a blank line after the title.

Your file should look like the following:

```
# Look a Title
```

Notice that there is a blank line after the title, and your cursor is at the start of line 3.

Add a paragraph to the markdown file

After the title, insert a paragraph.

Your cursor should be at the beginning of line 3.

1. Enter the text of your paragraph. For example, enter the following:

```
The above is a title. It could be formatted as something specifically labeled a title, or maybe just a heading level one.
```

- **2.** After entering the text of the paragraph, make sure there is a blank line after the paragraph.
- 3. Add a second paragraph.

Look a Title

You should have a title with two paragraphs, such as the following:

```
The above is a title. It could be formatted as something specifically labeled a title, or maybe just a heading level one.
```

This is another new paragraph with something bold and italic. I now have two separate paragraphs, and have some inline formatting.

Notice that there is an empty line between every block of text. Your cursor should be at the beginning of line 7.

Add inline formatting to the markdown file

Inline formatting in GitHub Flavored Markdown is done with underscores and asterisks.

You have a paragraph in your markdown file.

To make text italic, you wrap it with a single underscore or asterisk.

To make text bold, you wrap it in two underscores or two asterisks.

1. Place your cursor before the text you want to make italic and insert a single underscore or a single asterisk.

Here is the second paragraph with the first underscore added.

This is another new paragraph with something bold and _italic. I now have two separate paragraphs, and have some inline formatting.

2. Place your cursor at the end of the text you want to make italic and insert a single underscore or a single asterisk.

You have to use the same symbol as you used to start the italic text. _italic_ or *italic* work; _italic* or *italic_ does not work.

Here is the second paragraph with the second underscore added.

This is another new paragraph with something bold and _italic_. I now have two separate paragraphs, and have some inline formatting.

3. Place your cursor before the text you want to make bold and insert two underscores or two asterisks.

Here is the second paragraph with the first set of asterisks added.

```
This is another new paragraph with something **bold and _italic_. I now have two separate paragraphs, and have some inline formatting.
```

4. Place your cursor at the end of the text you want to make bold and insert two underscores or two asterisks.

You have to use the same symbol as you used to start the italic text. __bold__ or **bold** work; __bold** or **bold__ does not work.

Here is the second paragraph with the second set of asterisks added.

```
This is another new paragraph with something **bold** and _italic_. I now have two separate paragraphs, and have some inline formatting.
```

You now have inline formatting marked. You are ready to make an unordered list.

Add an unordered list to the markdown file

Unordered lists are sometimes known as bulleted lists.

Make sure your cursor is at the start of a new line and that there is a blank line above your cursor.

You can use many different characters to indicate an unordered list. The most common are asterisk or hyphens.

- **1.** Have your cursor at the start of the line, and confirm there is a blank line between where your cursor is and the previous content.
 - If you are following the example in these instructions, your cursor should be at the start of line 7.
- **2.** Insert a hyphen, a space, and then the text of your list item. For example:

```
- I also need a list.
```

- 3. Press Enter.
- 4. Insert a hyphen, a space, and then the text of your second list item.
 - You do not need to have blank lines between list items.
- 5. Repeat entering a hyphen, a space, and then the text of your list item.
- 6. Make sure there is a blank line after your list.

Your list should resemble the following:

```
- I also need a list.
- This is a second list item.
- And look, a third list item.
```

Add an ordered list to the markdown file

Unordered lists are sometimes known as numbered lists.

You make a numbered list item by entering the number 1, a period, a space, and then the text of the list item.

You should only use the number 1, which can be confusing. Some editors may recognize if you actually enter the numbers, but it's not guaranteed.

- 1. Have your cursor at the start of the line, and confirm there is a blank line between where your cursor is and the previous content.
 - If you are following the example in these instructions, your cursor should be at the start of line 11.
- **2.** Insert the number 1, a period, a space, and then the text of your list item. For example:

```
1. Now I need an ordered list.
```

- 3. Press Enter.
- **4.** Insert a number 1, a period, a space, and then the text of your second list item. You do not need to have blank lines between list items.
- 5. Repeat entering a number 1, a period, a space, and then the text of your list item.
- **6.** Make sure there is a blank line after your list.

Your list should resemble the following:

```
    Now I need an ordered list.
    I can use this for procedures.
    Or to identify items in an image I don't want to translate.
```

Insert a link in the markdown file

You often need to reference external websites when writing.

These instructions are how to link to an external web site. Linking to internal locations require different formatting, and is not required for this homework.

If you're interested in internal links, see https://stackoverflow.com/questions/27981247/github-markdown-same-page-link.

- **1.** Have your cursor where you want to insert your link.
- 2. Type an open square bracket [.
- 3. Enter the text for the link.
- **4.** Type a close square bracket].
- **5.** Type an open parenthesis (.
- **6.** Enter the URL for the link.

 You have to enter the full URL, including the http://.
- **7.** Type a close parenthesis).

For example:

```
This is a [link to Google](http://www.google.com).
```

Insert an image in the markdown file

Images in markdown are inserted by reference.

You need to have a web-friendly image in the folder you made in Make a md file on page 32. For example, you can reference a JPG, GIF, or PNG file.

You can also use a relative path from the markdown file to where the image is. If you have already added an image for another homework assignment, you could reference it. However, that requires that you understand how relative paths work. If you're not ready for that yet, just make sure your image is in your mcc_tools_tech\Week06-LightweightMarkup\Homework\YourNameHW folder.

The example image used is called graphic.png.

- 1. Have your cursor where you want to insert your image.
- 2. Type an exclamation point ! followed by an open square bracket [.
- Enter your alternative text for the image.This is used by screen readers or if your image cannot be found.

- **4.** Type a close square bracket].
- **5.** Type an open parenthesis { .
- **6.** Enter the relative path to your image.

 If your image is in the same folder as your markdown file, it should just be the file name.
- **7.** Type a close parenthesis).
- **8.** If this is a standalone image, make sure there is a blank line before and after the line of text for the image.

For example:

```
![A few overlapping geometric shapes in different colors.](graphic.png)
```

Add a table to the markdown file

Tables are very useful for displaying data but complicated in markdown.

Tables are defined using pipes | and hyphens -.

- **1.** Have your cursor at the start of the line, and confirm there is a blank line between where your cursor is and the previous content.
- 2. Type a pipe |, a space, the text of your first column header, another space, and then another pipe |.
- 3. Type a space, the text of your second column header, another space, and then another pipe |.
- 4. Repeat step 3 for every column.
- **5.** Press **Enter** at the end of your table row.
- **6.** For the second line to mark the previous line as the table head, type a pipe | a space, then a number of hyphens equal to the text of your first column, another space, and then another pipe |. Repeat the hyphens and pipes to match your table head. For example:

```
| Table Head 1 | Table Head Column 2 |
```

7. For each row of your table, type a pipe |, a space, the text of your cell, a space, a pipe, the text of the second column cell, a space, and a pipe. You want to end your row with a space and a pipe.

This means that most likely your pipes will not line up because your cell text will be different lengths.

8. Make sure there is a blank line after your table.

For example, here is the completed table:

```
| And a third row for fun | With one more column 2 |
```

Example markdown file

If you followed the previous instructions, your file should resemble the following.

```
# Look a Title
The above is a title. It could be formatted as something specifically
labeled a title, or maybe just a heading level one.
This is another new paragraph with something **bold** and _italic_. I
now have two separate paragraphs, and have some inline formatting.
- I also need a list.
- This is a second list item.
- And look, a third list item.
1. Now I need an ordered list.
1. I can use this for procedures.
1. Or to identify items in an image I don't want to translate.
This is a [link to Google](http://www.google.com).
![A few overlapping geometric shapes in different colors.](graphic.png)
 Table Head 1 | Table Head Column 2
 Column 1 | Column 2 |
 More Column 1 | More Column 2 |
 And a third row for fun | With one more column 2 |
```

Save your file and upload it to GitHub. If you need a refresher on working with GitHub, see Handouts/git_cheatsheet.pdf.

Congratulations! You've made a GitHub Flavored Markdown file!

Week 7 Restructured Text

ReStructured Text (ReST) is another type of lightweight markup.

These instructions should help you meet the minimum requirements for the assignment.

These instructions should be used in conjunction with the information in the following files:

- mcc_tools_tech\Week07-MoreLightweightMarkup\reStructuredText.pdf
- mcc_tools_tech\Week07-MoreLightweightMarkup\sphinx.pptx
- mcc_tools_tech\Week07-MoreLightweightMarkup \week7_more_lightweight_markup.html

Make a rst file

ReStructured Text is a text file.

- 1. In File Explorer, right-click in the mcc_tools_tech\Week07-MoreLightweightMarkup \Homework folder and select New > Folder.
 - This makes a new folder in the Homework directory. It should be called New Folder, and the text "New Folder" should be highlighted and ready to rename the folder.
- 2. Rename the folder YourNameHW.
 - For example, I would name the folder ZoeLawsonHW.
 - I will keep referring to the folder as YourNameHW.
- 3. Navigate into the YourNameHW folder.
- 4. Still in File Explorer, right-click in YourNameHW and select New > Text Document.

 This makes a new text document in the YourNameHW folder. It should be called New Text

 Document.txt, and the text "New Text Document" should be highlighted and ready to rename the file.
- 5. Rename the text file YourName.rst.
 - For example, I would name the file ZoeLawson.rst.
 - You must change the extension to rst.
 - You should receive a message stating If you change a file name extension, the file might become unusable. Are you sure you want to change it?.
- **6.** Click **Yes** to change the file extension.
 - The file should be named YourName.rst.

Congratulations! You have made a ReStructured text file.

Open the rst file in Notepad++

ReStructured Text was created to be used with applications written in Python. A Python environment editor should handle ReST, but we're going to use Notepad++.

In File Explorer, right-click YourName.rst and select Edit with Notepad++.

If you have Windows 11, you may have to select **Show more options** before you can select **Edit with Notepad++**.

The blank file, YourName.rst opens in Notepad++.

You are now ready to add your first heading or title.

Add a title to the markdown file

The first block you need to add is a title or heading.

Your blank file should already be open in Notepad++. If it isn't, see Open the rst file in Notepad++ on page 39.

- 1. On the first line, type your title text and press **Enter**.
- **2.** On the second line, type an equal sign = the same length as your title. You can actually use one of many characters, including +, #, *, or ~.
- **3.** After entering the text of the title, and the line of characters marking the title, make sure there is a blank line after the title.

Your file should look like the following:

```
Look a Title ========
```

Notice that there is a blank line after the title, and your cursor is at the start of line 4.

Add a paragraph to the ReST file

After the title, insert a paragraph.

Your cursor should be at the beginning of line 4.

1. Enter the text of your paragraph. For example, enter the following:

```
The above is a title. It could be formatted as something specifically labeled a title, or maybe just a heading level one.
```

- 2. After entering the text of the paragraph, make sure there is a blank line after the paragraph.
- 3. Add a second paragraph.

You should have a title with two paragraphs, such as the following:

```
Look a Title
```

The above is a title. It could be formatted as something specifically labeled a title, or maybe just a heading level one.

This is another new paragraph with something bold and italic. I now have two separate paragraphs, and have some inline formatting.

Notice that there is an empty line between every block of text. Your cursor should be at the beginning of line 8.

Add inline formatting to the ReST file

Inline formatting in ReST is done with underscores and asterisks.

You have a paragraph in your ReST file.

To make text italic, you wrap it with a single asterisk.

To make text bold, you wrap it in two asterisks.

1. Place your cursor before the text you want to make italic and insert a single asterisk. Here is the second paragraph with the first asterisk added.

```
This is another new paragraph with something bold and *italic. I now have two separate paragraphs, and have some inline formatting.
```

2. Place your cursor at the end of the text you want to make italic and insert a single asterisk. Here is the second paragraph with the second underscore added.

```
This is another new paragraph with something bold and *italic*. I now have two separate paragraphs, and have some inline formatting.
```

3. Place your cursor before the text you want to make bold and insert two asterisks. Here is the second paragraph with the first set of asterisks added.

```
This is another new paragraph with something **bold and *italic*. I now have two separate paragraphs, and have some inline formatting.
```

4. Place your cursor at the end of the text you want to make bold and insert two asterisks. Here is the second paragraph with the second set of asterisks added.

```
This is another new paragraph with something **bold** and *italic*. I now have two separate paragraphs, and have some inline formatting.
```

You now have inline formatting marked. You are ready to make an unordered list.

Add an unordered list to the ReST file

Unordered lists are sometimes known as bulleted lists.

Make sure your cursor is at the start of a new line and that there is a blank line above your cursor.

You can use many different characters to indicate an unordered list. The most common are asterisk or hyphens.

1. Have your cursor at the start of the line, and confirm there is a blank line between where your cursor is and the previous content.

If you are following the example in these instructions, your cursor should be at the start of line 8.

2. Insert a hyphen, a space, and then the text of your list item. For example:

```
- I also need a list.
```

You can use a hyphen -, an asterisk *, or a plus sign + to mark an unordered list.

- 3. Press Enter.
- 4. Insert a hyphen, a space, and then the text of your second list item.

You do not need to have blank lines between list items.

- **5.** Repeat entering a hyphen, a space, and then the text of your list item.
- **6.** Make sure there is a blank line after your list.

Your list should resemble the following:

```
- I also need a list.
- This is a second list item.
- And look, a third list item.
```

Add an ordered list to the ReST file

Unordered lists are sometimes known as numbered lists.

You make a numbered list item by entering a pound sign/hashtag/octothorpe #, a period, a space, and then the text of the list item.

The pound sign makes an autonumbered list. You can use exact numbers if you need a list to start at a number other than 1.

1. Have your cursor at the start of the line, and confirm there is a blank line between where your cursor is and the previous content.

If you are following the example in these instructions, your cursor should be at the start of line 12.

2. Insert a pound sign #, a period, a space, and then the text of your list item. For example:

```
#. Now I need an ordered list.
```

- 3. Press Enter.
- **4.** Insert a pound sign #, a period, a space, and then the text of your second list item. You do not need to have blank lines between list items.
- 5. Repeat entering a pound sign #, a period, a space, and then the text of your list item.
- 6. Make sure there is a blank line after your list.

Your list should resemble the following:

```
#. Now I need an ordered list.#. I can use this for procedures.#. Or to identify items in an image I don't want to translate.
```

Insert a link in the ReST file

You often need to reference external websites when writing.

These instructions are how to link to an external web site. Linking to internal locations require different formatting, and is not required for this homework.

ReST links consist of two items:

· A text for the link, followed by an underscore.

If the text has spaces in it, you must wrap the text in a back tick. On US keyboards, the back tick is the key to the left of the 1. It is usually the same key as the tilde \sim .

```
For example: `A link to google`_
```

A definition for the link, that begins with two periods, a space, an underscore, and the link text.

```
For example: .. _`A link to google`: http://www.google.com
```

- 1. Have your cursor where you want to insert your link.
- 2. Type the text for your link, followed by an underscore _.
- 3. On a separate line, type two periods, a space, an underscore, the name, and a colon.
- 4. Enter the URL for the link.

You have to enter the full URL, including the http://.

For example:

```
This is a `link to Google`_
.._`link to Google`: http://www.google.com
```

Insert an image to the ReST file

Images in ReST are inserted by reference.

You need to have a web-friendly image in the folder you made in Make a rst file on page 39. For example, you can reference a JPG, GIF, or PNG file.

You can also use a relative path from the markdown file to where the image is. If you have already added an image for another homework assignment, you could reference it. However, that requires that you understand how relative paths work. If you're not ready for that yet, just make sure your image is in your mcc_tools_tech\Week07-MoreLightweightMarkup\Homework \YourNameHW folder.

The example image used is called graphic.png.

- 1. Have your cursor where you want to insert your image.
- 2. Type two periods, a space, the text image followed by two colons and a space.
- Enter the relative path to your image.If your image is in the same folder as your markdown file, it should just be the file name.
- **4.** As a standalone image, make sure there is a blank line before and after the line of text for the image.

For example:

```
.. image:: graphic.png
```

Add a table to the ReST file

Tables are very useful for displaying data but complicated in ReST.

Tables are defined using pipes |, plus signs +, and hyphens -. Table headings are defined with equal signs =.

- The plus sign + is used to mark corners.
- The hyphen is used to mark row borders.
- The equal sign = is used to mark the table header.
- The pipe | is used to mark column borders.

All of the text of the table has to be surrounded by the demarcation symbols.

It's probably easiest to type out the text of your table, and then make the demarcation symbols around the text.

• This is difficult to explain in words. Hopefully this example will explain better than numerous confusing steps:

Example ReST file

If you followed the previous instructions, your file should resemble the following.

```
Look a Title
```

```
The above is a title. It could be formatted as something specifically
labeled a title, or maybe just a heading level one.
This is another new paragraph with something bold and italic. I now
have two separate paragraphs, and have some inline formatting.
- I also need a list.
- This is a second list item.
- And look, a third list item.
#. Now I need an ordered list.
#. I can use this for procedures.
#. Or to identify items in an image I don't want to translate.
This is a `link to Google`_
.. `link to Google`: http://www.google.com
.. image:: graphic.png
+----+
Table Head 1 Table Head Column 2
Column 1 Column 2
+----+
| More Column 1 | More Column 2
+----+
And a third row for fun | With one more column 2 |
```

Save your file and upload it to GitHub. If you need a refresher on working with GitHub, see Handouts/git_cheatsheet.pdf.

Congratulations! You've made a ReStructured Text file!

Working with Files in GitHub.com

You should learn how to use GitHub Desktop or some other tool to work with files in git. However, github.com does have limited browser-based tools you can use.

For full functionality, you absolutely need to use a local git client. For several of the assignments, you need to have a whole bunch of files locally, and to be able to turn in the multiple files edited, you need to use a local git client. To be able to say you can use git on your resume, you need to know how to use a local client.

That said, sometimes you need a work around. You might be travelling and need to fix something quickly. You can get your local git instance into a tangled mess and just want to get that file turned in (and ask me for help later). You may need to do something on the virual desktop, where you can't install a git client.

GitHub.com provides some basic tools in the web UI that you can use when you have to.

Create a New Text File

GitHub.com includes a text editor, so you can create new text files in the browser.

Remember, when I say text file, I mean any file that is "just text", even if it doesn't have a .txt extension.

This includes, but is not limited to:

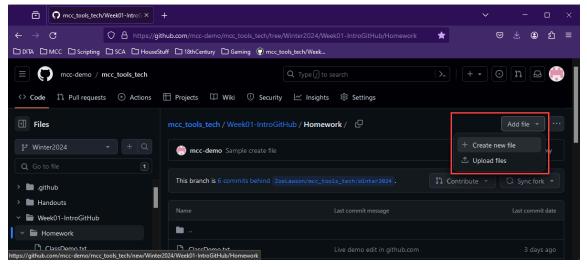
- · .css
- .dita
- .html
- .md
- .properties
- .rst
- · .svq

See https://docs.github.com/en/repositories/working-with-files/managing-files/creating-new-files, or you can try my simplified instructions.

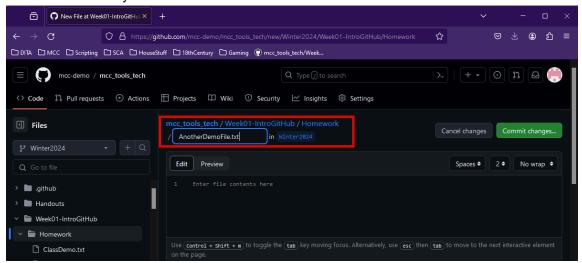
- Log in to GitHub.com, and navigate to your fork of the class repository.
 For example, using the demo user, mcc-demo, I would go to https://github.com/mcc-demo/mcc_tools_tech.
- 2. Navigate to where ever you need to create the file.

 For this example, I will use the Week 1 Homework folder, as that is the default place to play with working with files in git without confusing anything.

3. Select Add file > Create new file.

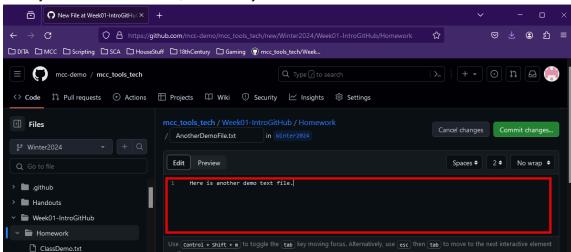


4. Provide a name for your file.



You have to enter the extension.

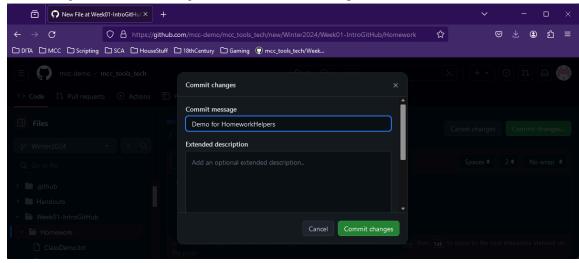
You can also add a folder to the path to make a new sub-folder, such as typing NewFolder/. The instant you type the folder separator (/), GitHub recognizes it as a folder. The new folder name is added to the path and the file name field is emptied.



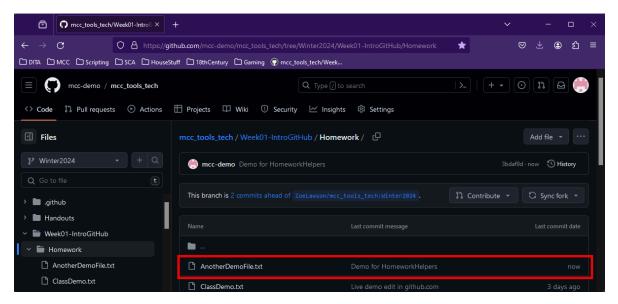
5. Enter your text in the text field, where it says "Enter file contents here".

If you're using a file format GitHub knows how to display, such as Markdown, it can show what it will look like.

- 6. When you're done making changes, click Commit changes.
- 7. Provide a good commit message and click Commit changes.



Ta-da! Your text file has been added to your fork.



Remember that this just adds the file to your fork. You still need to make a pull request.

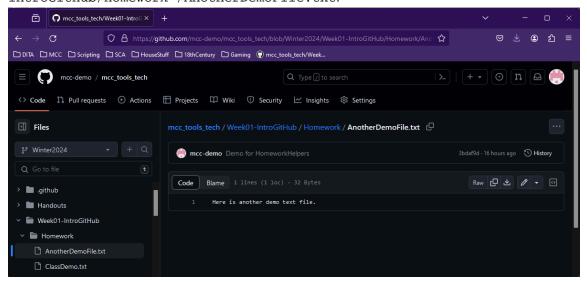
If you need a refresher on how to do a pull request, see mcc_tools_tech\Week01-IntroGitHub\using_git.pdf (Using Git) or mcc_tools_tech\Handouts \git_cheatsheet.pdf (Git Cheatsheet).

Edit an Existing Text File

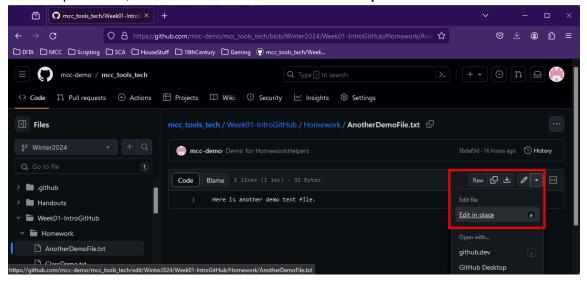
With the GitHub text editor, you can edit text-based files in your browser.

You can read the GitHub.com docs here: https://docs.github.com/en/repositories/working-with-files/managing-files/editing-files or you can look at my simplified procedure.

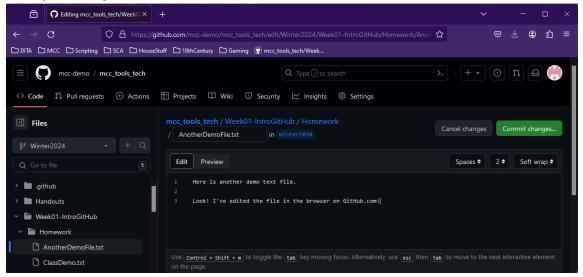
Log in to GitHub.com and navigate to the file you want to edit in your fork.
 In this example, I am going to edit the file I just made, mcc_tools_tech/Week01-IntroGitHub/Homework /AnotherDemoFile.txt.



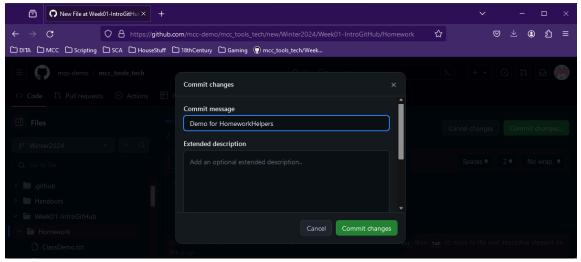
2. Click the pencil icon, or the arrow next to it and select Edit in place.



3. Make your changes to the file.



4. Provide a good commit message and click **Commit changes**.



You have now edited a text file on GitHub.com.

Remember that this just edits the file to your fork. You still need to make a pull request.

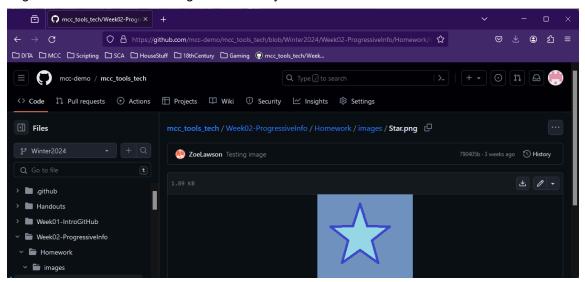
If you need a refresher on how to do a pull request, see mcc_tools_tech\Week01-IntroGitHub\using_git.pdf (Using Git) or mcc_tools_tech\Handouts \git_cheatsheet.pdf (Git Cheatsheet).

Download an Existing File

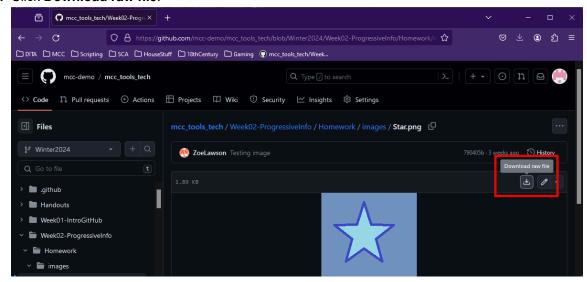
If you need to use a different computer than you usually do you can download a specific file from GitHub.com.

This is also useful if you need to restore something from the class repository. Instead of going through the mess of undoing commits, etc., you can go to the class repository and download the original file. You can then overwrite the file in your own fork to fix it.

1. Log in to GitHub.com and navigate to the file you want to download.



2. Click Download raw file.



The File Browser opens.

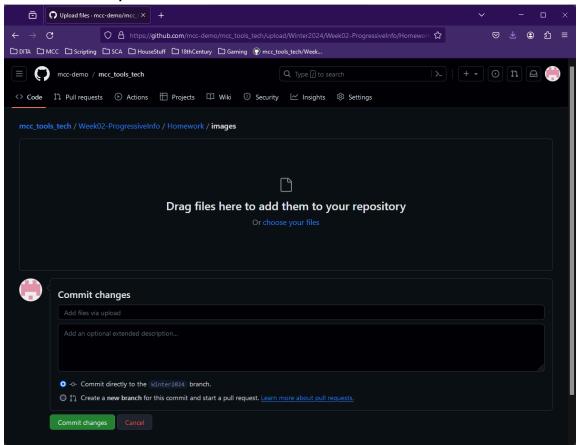
3. Navigate to where you want to save the file and click Save.

You now have the file locally, which you can work with as you need.

Upload a New File

Use this to add a new file to your repository, or to update a file of the same name.

- 1. Log in to GitHub and navigate to the folder where you want to add or update the file.
- 2. Select Add file > Upload files.



3. Drag and drop your file to the browser, or click **choose your files** to select files using a file browser.

If you add a file that is the same name as an existing file, you will update it. Remember that Git cares about file name case. (YourFile.txt is different than yourfile.txt.)

- 4. After adding all the files you want to update, provide a commit message.
- 5. Click Commit changes.

Congrats, you have added or updated files in your GitHub repository.

Remember that this just adds the file to your fork. You still need to make a pull request.

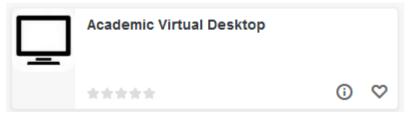
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Using the Virtual Desktop

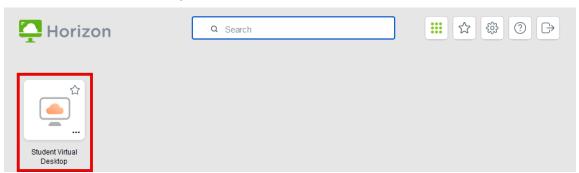
Middlesex Community College provides a virtual student desktop to access applications provided by the school.

The virutual desktop gives you access to all the Microsoft Office applications and Techsmith Camtasia.

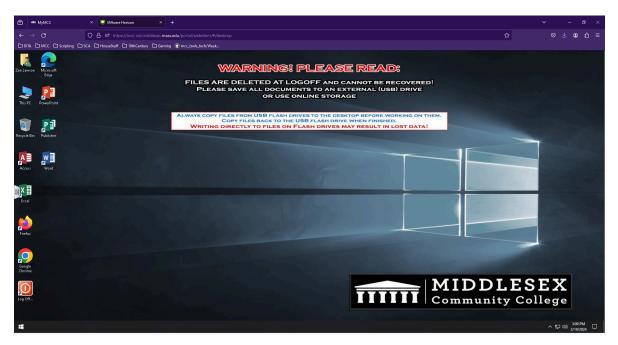
- 1. Log in to MyMCC (https://mymcc.middlesex.edu/).
- 2. Click Academic Virtual Desktop.



- 3. Sign in to MCC (again).
- 4. Click Student Virtual Desktop.



5. You may be prompted to choose between the desktop client and the browser client. This example uses the browser client.



You now have access to the virtual desktop in your browser window.

Remember that while you might be able to save files locally, there is no guarantee they will still be there the next time you log in. Save any work to your own cloud drive (OneDrive, Google Drive, etc.), or take advantage of the GitHub.com browser tools.