Reading A: How To Overleaf

You can (optionally) learn LaTeX while taking 311. LaTeX is useful for making typed versions of technical documents (if you're considering graduate school, for example, you're almost certain to use LaTeX for all your research papers).

LaTeX is a language (like Java or C++) which means it needs a compiler. You can download a compiler and make documents on your local computer or you can use the compiler built-in to Overleaf (and not have to download anything).

This document is an introduction to how to use **Overleaf** – it is not on how to write LaTeX documents in general (we have other resources for that on the webpage).

1. Getting Stated

You'll need to make an account for overleaf (we currently recommend using your at-uw email address, not at-cs).

When you open overleaf, you'll need to start a file. For your first few times using LaTeX, you'll want to use someone else's file as a starting point. For 311, we have a sample file on the course webpage.

As you're going, most of the time you'll just be typing (like you would in Microsoft Word). But you can insert variables and expressions, like $p \vee \neg q$ in math mode.

You should be editing in the "Source" portion of overleaf (don't use the Rich Text option).

2. Compiling

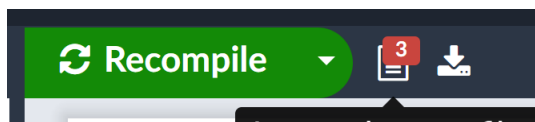When you want to see what your document looks like, press the "Recompile" button.

Figure 1: The command bar on overleaf, press the recompile button to update your document. When we last compiled this document, we had errors, as shown by the red box around the number 3. The download button is at the right of this image.

Then look at the number to the right of the recompile button.

2.1. Errors

If there is a red square to the right of your recompile button it means you have an **error**. This image means you had a compile error (a lot like errors in java programs), or possibly more than one (the number indicates how many there were).

Overleaf **wants** to be helpful, and wants to show you its best guess at what your document should have been. So it will often guess at how to fix your compile errors and temporarily insert text to fix compile errors (it won't alter your tex file permanently though).

If it happened to guess right, your pdf might look like you wanted it to. But you should not keep going yet! Until **you** fix your compile errors, you're in danger of making a document with so many errors overleaf can't fix them all anymore. Fix your errors first!

Click on that red square, and start reading the errors. Just like Java compile errors, you'll get a line number. And just like Java compile errors you'll get some text that may or may not actually help explain why its wrong. Look
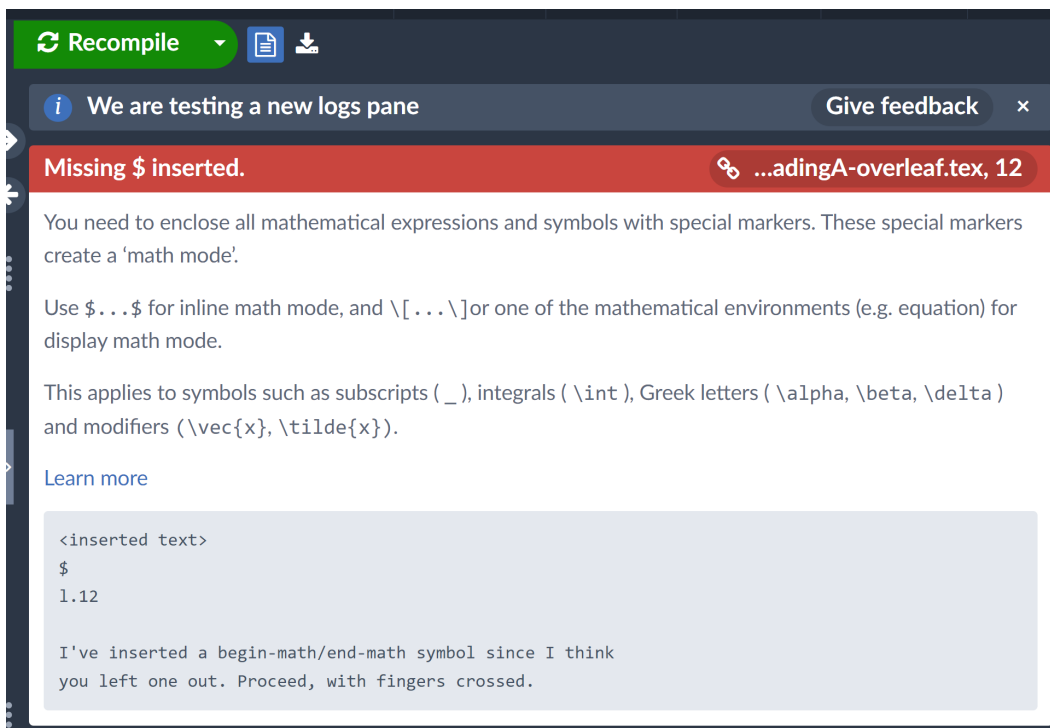
Figure 2: A common error message; on line 11 we forgot a dollar-sign. Overleaf guessed that it should insert the closing dollar-sign at the start of line 12, so we started looking there for how to fix it.

around (especially above) that area, make changes, and recompile (you may find that fixing one mistake gets rid of a bunch of supposed errors later on in the document, especially if you forgot a $.

2.2. Warnings

As you keep correcting mistakes, you'll eventually fix all your errors and have only warnings remaining. When the box changes from red to orange or yellow, you have only warnings left.

Figure 3: The orange rectangle means we have only warnings, no errors. Many warnings can be ignored.

Warnings sometimes indicate that something has gone wrong, but sometimes they're just alerting you to the way things are laid-out.

The most common warning is an "Overfull \hbox." An overfull hbox means your text has stretched into the margins. Sometimes just a little bit, sometimes so far that we can't see everything you typed. You should check to make sure everything still fit on the page. As long as it did, you don't have to fix this.

3. Finishing Up

When you are done with your document, you can press the download button (to the right of the recompile button). Overleaf will give it a generic name (corresponding to the name of your project).