LaTeX Practice Assignment 1

Due: Week 2 Wednesday by 11:55pm (via Overleaf invite)

Goal: The point of this part of the assignment is to give you "hands-on" practice with how things typed in the TEX file correspond to the PDF output and vice versa.

(Task 1) (a) To begin, login to https://www.overleaf.com.

(b) Click "New Project" on the top left, select "Blank Project", and title this project "MATH2794W YourName". This is where you will create and store all of your assignment files throughout the semester.

(c) Delete the default "main.tex" file by first clicking on the down-arrow icon next to the "main.tex" in your project.

(d) Use the "New Folder" icon (shaped like a folder) on the top left to create a new folder and title your folder "assignment1".

(e) Download the three files:

- egunawan.github.io/writing/hw/01/intro1.tex
- egunawan.github.io/writing/hw/01/Bib.bib
- egunawan.github.io/writing/hw/01/fig1.pdf

and upload these three files to your "assignment1" folder in Overleaf using the "Upload" icon on the top left.

(f) Click "Menu" on the top left.

- Scroll down to "Main Document" and select the .tex file as your main document (as opposed to the .bib file).
- Scroll down to "Spell Check", and make sure that the setting is set to "English (American)". This will permanently turn on spell check.
- Scroll down to "auto-complete" and set it to "on". If this becomes annoying, you can turn it off later.
- Scroll down to "auto-close brackets" and set it to "off". If you prefer, you can turn this on later.

Keep all the other settings as they are, unless you are familiar with Overleaf.

(g) In your new "assignment1" folder, click on the "intro1.tex" file on the left and then press "Recompile" button. When you are done, the PDF output that gets created should match the PDF file

"egunawan.github.io/writing/hw/01/templateintro1.pdf"

exactly. You can use the icon on the top right to toggle between "full screen" and "split screen" views of the PDF preview screen. You can also download either the source code or the PDF of this project by clicking on "Menu" on the top left and "Download".

(Task 2) Make the following changes, one at a time and in order, to the "intro1.tex" file in Overleaf. Note that every change made in Overleaf is autosaved. Click "Recompile" (or set auto-compile to on) after every change you make and view the PDF in "full screen" to see the change. Note that you will need to use Google (or an alternative search engine) to look up how to use various features of LaTeX.

(2a) Change the title to "LaTeX Practice Assignment 1".

(2b) Change the author to your name (in "First Name Last Name" format).

(2c) Change the date to the assignment due date (in "Month Day, Year" format).

(2d) Replace the bullet point list in the "Introduction" section by a numbered list (using "enumerate"). In the same list, replace the words in italic text with the same words in boldface text.

(2e) Replace all four occurrences of the equation $1 + 1 = 2$ in the "Equation Stuff" section with the inequality $b \leq a^4 + a^2 + \frac{1}{5}$.

(2f) Replace
$$\left(\frac{\pi^2}{2} + 0 - \pi \right) - \left(\frac{\pi^2}{8} + 1 - \frac{\pi}{2} \right)$$
with
$$\left[\frac{\pi^2}{2} + 0 - \pi \right] - \left[\frac{\pi^2}{8} + 1 - \frac{\pi}{2} \right].$$

(2g) Replace
$$\frac{3\pi^2}{8} - 1 - \frac{\pi}{2}$$
with the equivalent expression
$$\frac{3\pi^2 - 4\pi - 8}{8}$$

(2h) Change the width of Figure 1 to 5 inches. Change the caption under Figure 1 to a different sentence, for example, "An illustration of a planar graph".

(2i) Add a fourth column to Table 1. Call the new column "Column 4" and make its entry be w^2. In the same table, center all four of the columns of your new Table 1. Hint: Determine what the "r", "c", and "l" do to each of the three original columns of the table.

(Task 3) (3a) In the "Bib.bib" file in Overleaf AND towards the end of your "intro1.tex" file in Overleaf, replace "Article" by "Article1", replace "Book" by "Book1", and replace "Website" by "Website1". This is changing the names of the labels given to each of the three references. Make sure to change these labels in the main document as well.

(3b) Recompile your finalized "intro1.tex" file and make sure everything on your PDF file looks correct.

(3c) Check for errors or warnings and fix them.

(3d) Click "Menu" on the top left and, from the top "Download" menu, click on "Source". This will download a zipped folder that can be saved in your computer for backup.

Submitting LaTeX Practice Assignment: Share your Overleaf project with me via my university email address.