Course Overview Practice Assignments

Introduction to Programming - Spring 2023 - Lyon College

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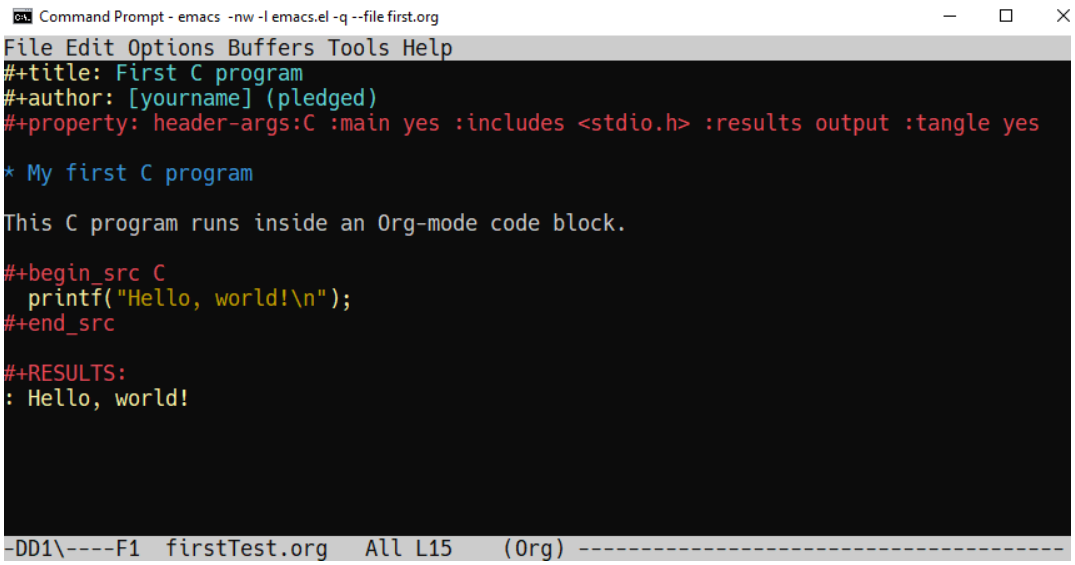
Class Practice: first C program (due Jan 20)

Figure 1: Books aren't the only way to be "literate" in programming!

(You can find a PDF of this exercise on GitHub)
Let's set Emacs up, write and run a first "literate" C program!

1. Open the command line terminal with `CMD` in the search field
2. At the prompt, type `gcc --version`
3. Open `https://github.com/birkenkrahe/org/` in a browser
4. Navigate to the repository `emacs` in GitHub
5. Click on the file name `.emacs` to open it

6. Open the `Raw` version of this file (there's a button)
7. Right click to `Save as` and save file as `emacs.txt` in `/Downloads`
8. Open a terminal by entering `CMD` in the Windows search bar
9. Pin the terminal to your taskbar
10. At the prompt, enter `DIR emacs.txt` - you should see the file
11. At the prompt, enter `emacs --version`
12. Enter `emacs -nw -l emacs.txt`
13. Inside Emacs, click `<F10>` and `ENTER` to open a new file
14. At the prompt at the bottom of the screen, enter `first.org`
15. Enter the following text (replace `yourname` with your own name):



16. Run the program by putting the cursor anywhere on the code block and typing `CTRL-c CTRL-c` (or `C-c C-c`)
17. Tangle the code with `C-c C-v t` (or `M-x org-babel-tangle`)
18. Open a shell (terminal program) with `ALT-x eshell`

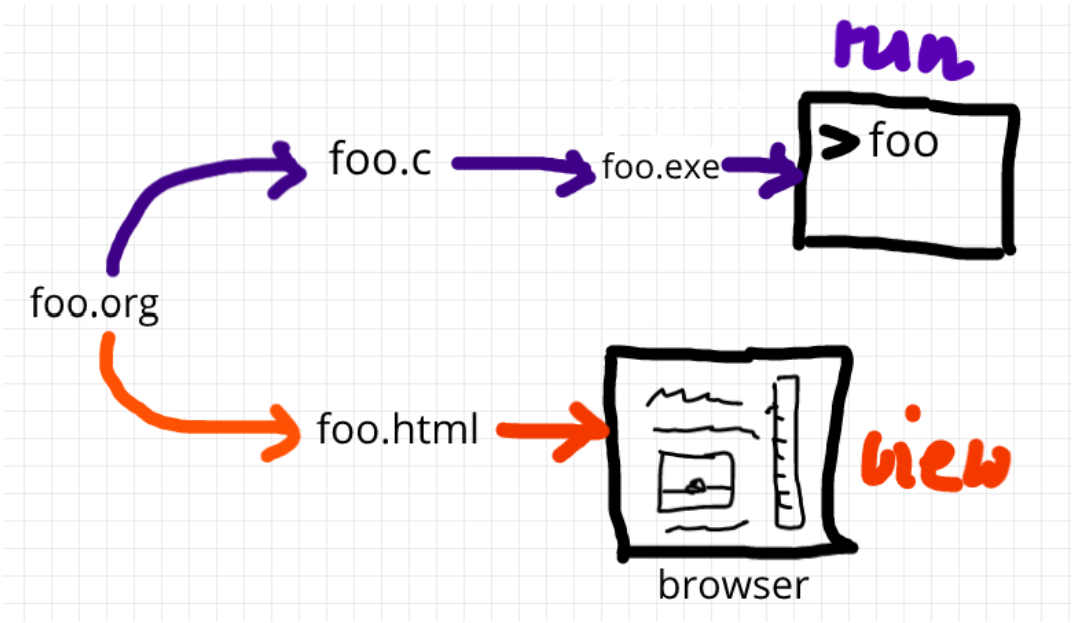


Figure 2: What happens when you tangle or weave a literate program

19. At the prompt, enter `ls -l first*` - you should see `first.C`
20. Enter `gcc first.C -o hello`
21. Enter `hello` to run the program.
22. Upload `first.org` as your first in-class assignment to Canvas!

(Home) Assignment: Emacs tutorial (due Jan 23)

- We're going to begin this assignment together in class - but you may need to finish it at home (or in the MAC or in one of the computer labs, Lyon 104 or Derby 209) on your own.
- To install Emacs on your computer, follow the instructions in the GitHub FAQ. When you're at it, you should also install a C compiler.
- If you have trouble installing anything on your own computer, bring it to class or come to my office hours (Mon-Fri, 4.15-4.45 PM).
- Open the Tutorial in GitHub and follow the instructions: tinyurl.com/3j5ddtuk
- There is also a PDF version if you like to print things out.
- When you've completed the instructions, you should have a time-stamped Org-mode file that you can upload to Canvas.