CS 112 - Week 1 Lab Exercise - 2022-08-25

Deadline

Due by the end of lab on 2022-08-26.

How to submit

Submit the files specified below on https://canvas.humboldt.edu

Purpose

• To make sure you have a GitHub account (and to let me know its username)

• To make sure you can use that GitHub account to access the VS Code for CS50 browser-based IDE

• To give you practice creating, compiling, and running a separately-compiled C++ program using this IDE

Important notes

• Be sure to include your name in the beginning comment of EACH of your `.cpp` and `.h` files where it is asked for.
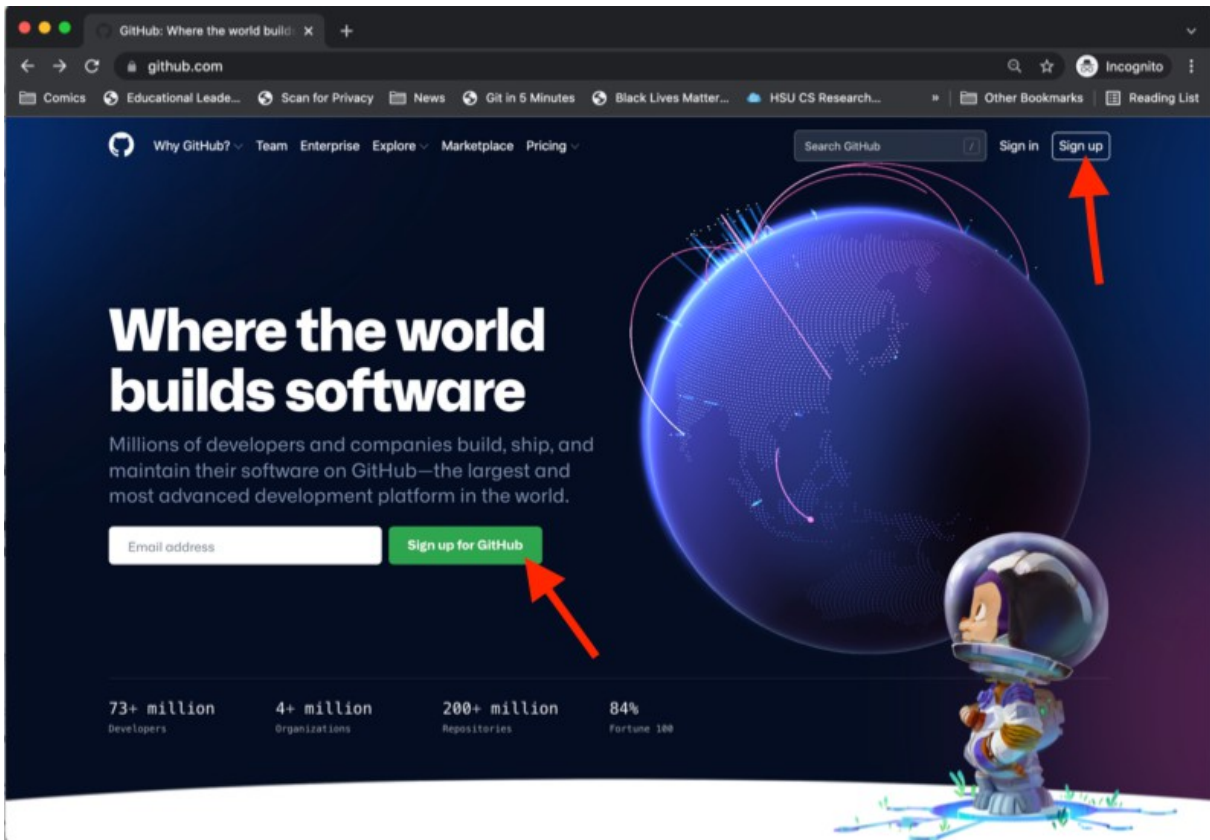
PART 1 - C++ environment set-up - GitHub account

• We are going to use a cloud-based programming environment from Harvard University, the VS Code for CS50 integrated development environment (IDE), that supports C++ as well as quite a few other languages! It is located at:
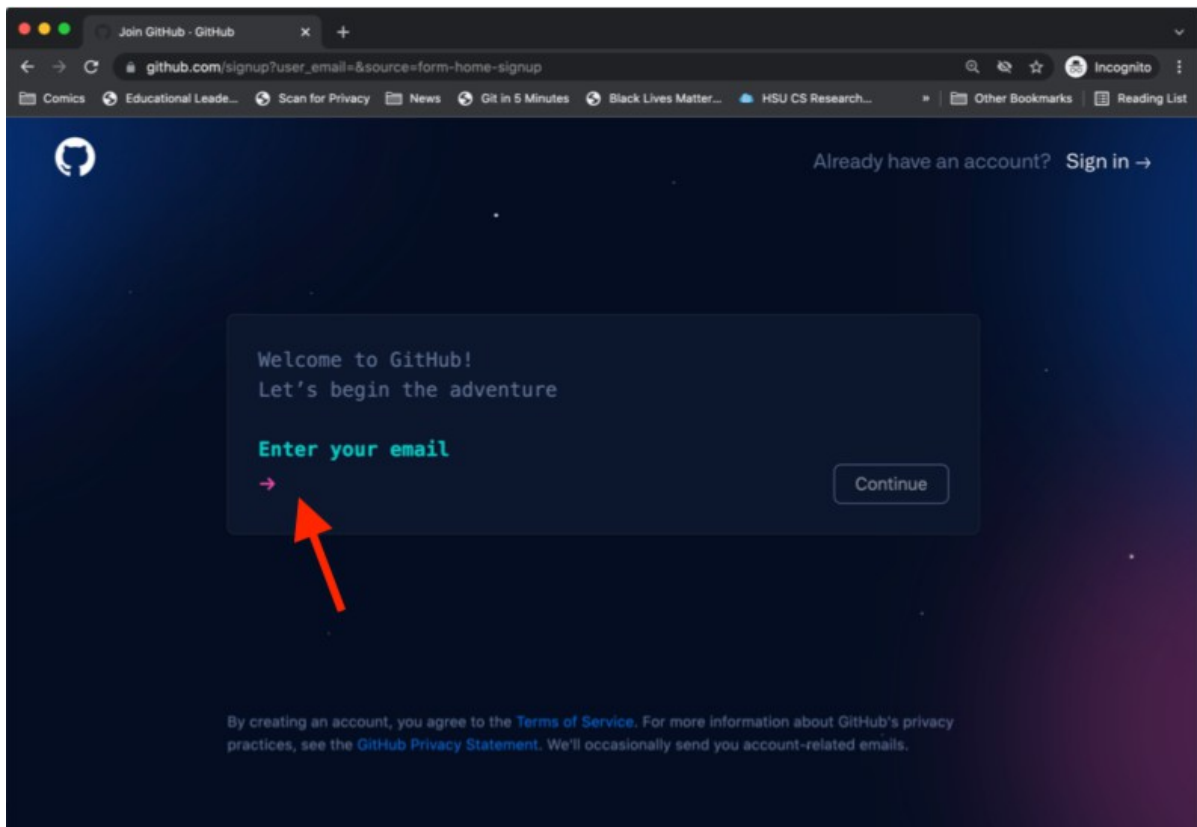
https://code.cs50.io/

  – This IDE is free to use, but you do need a (free!) GitHub account to sign in and use it.

  – **Do you already HAVE a GitHub account?** Then complete Part 1 of this lab exercise by creating a file `github-name.txt` that contains TWO things:

    – **first**, your name (preferred first name and last name)

    – **second**, your GitHub username (in case we try out some GutHub features later this semester where I would need this)

  – **Do you NOT have a GitHub account yet?** Then sign up for one at:

https://github.com/

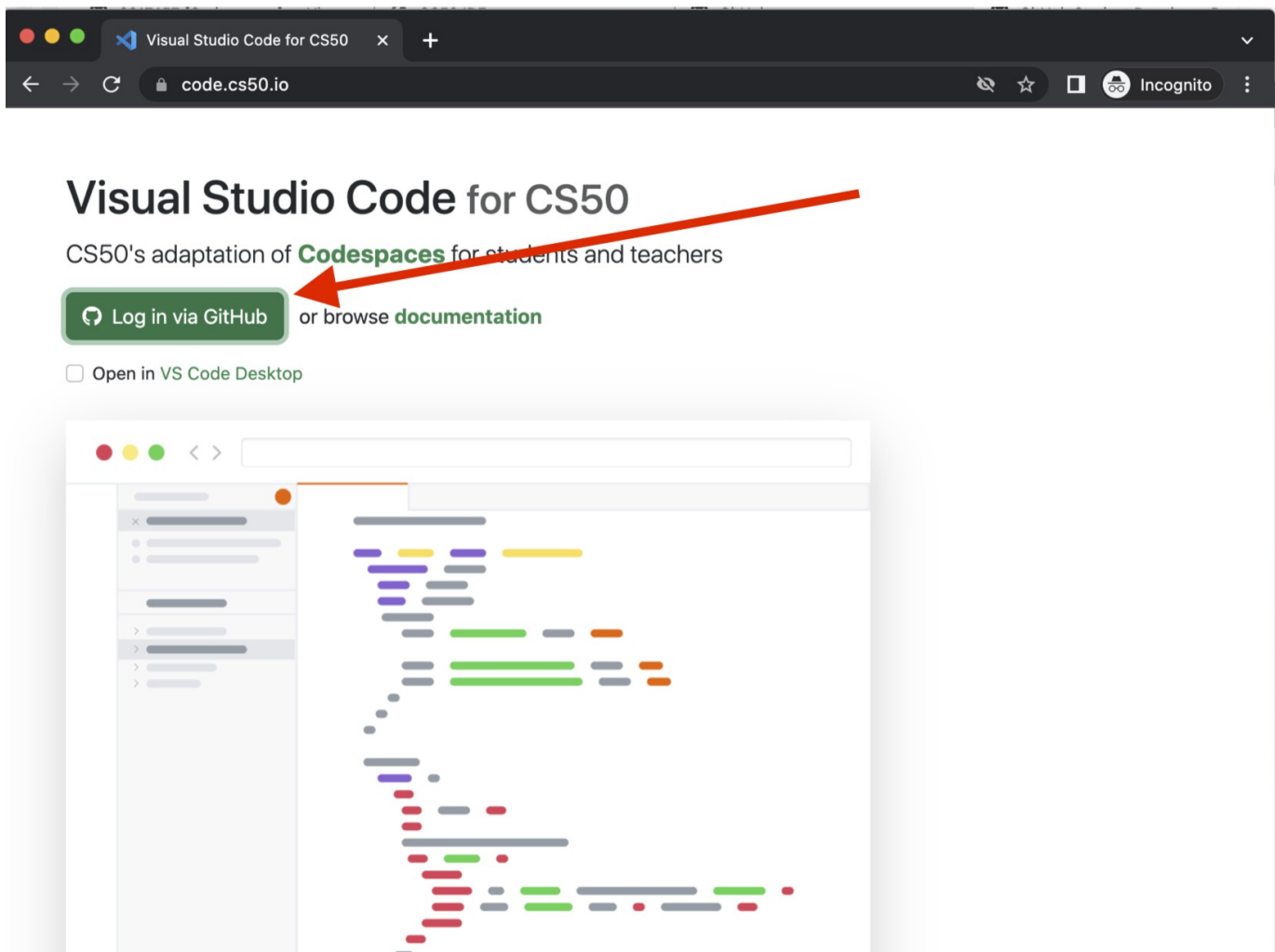   – On the opening screen, you can click either "Sign up" button to get started with the sign-up process:

- Then follow the prompts from there -- starting with entering your *HSU* email address, please, for CS 112 purposes:
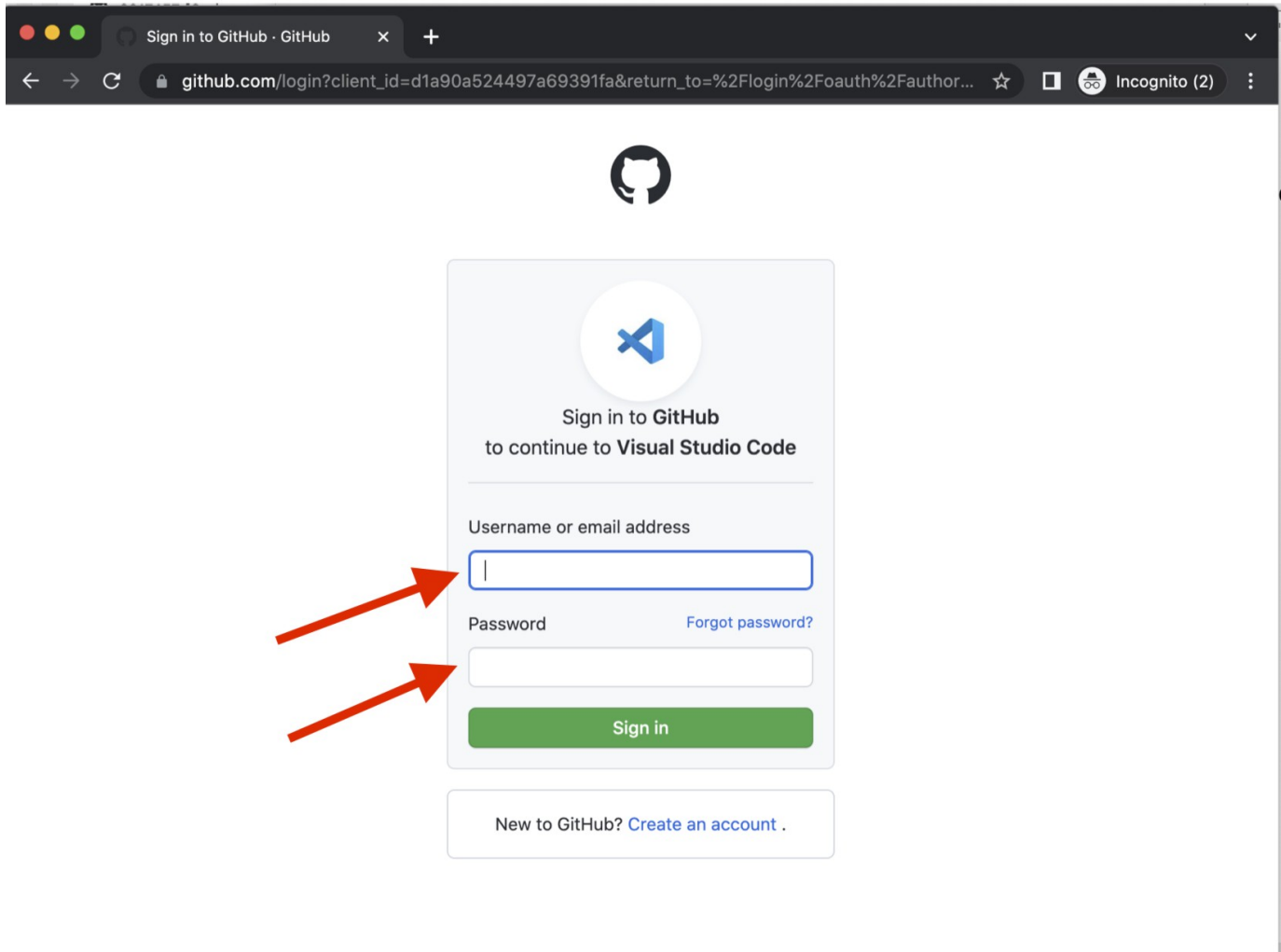
- and, now YOU too can complete Part 1 of this lab exercise by creating a file `github-name.txt` that contains TWO things:

  - **first**, your name (preferred first name and last name)

  - **second**, your GitHub username

  - (note that I *may* be setting up a GitHub classroom for CS 112 for use later this semester; make sure you type your GitHub username correctly in this file!)

- **OPTIONAL**:

  - If you would like, you can check out the free **GitHub Student Development Pack** available from https://education.github.com/pack

  - You can also set up a **separate** GitHub account from a non-HSU e-mail address if you would like to have a place for non-school-related projects.

PART 2 - C++ environment set-up - Try Logging into VS Code for CS50:

- **THEN**: try logging into VS Code for CS50:

  - Go to https://code.cs50.io/

  - Click the green "Log in via GitHub" button near the top of the screen:

...and then login into your GitHub account and authorize the CS50 VS Code IDE if prompted:

- – Once you log in, you will automatically be forwarded to VS Code for CS50 IDE! Hereafter, you may simply return to https://code.cs50.io/ to log in and return to VS Code for CS50, where all your files and settings are preserved.
- Now, you can complete the logged-into-VS-Code-for-CS50 part of today's lab by creating a file `cs50-success.txt` that contains TWO things:
  - – **first**, your name (preferred first name and last name)
  - – **second**, a sentence letting me know that you successfully logged into the CS50 IDE

PART 3 - DEMO that you can successfully modify and run a separately-compiled C++ program using the VS Code for CS50 IDE

- Copy `letter_match.cpp`, and `letter_match.h`, and `letter_match_test.cpp` into VS Code for CS50
- In a Terminal in the lower window, compile, link, and load this program typing the command:

```
g++ letter_match.cpp letter_match_test.cpp -o letter_match_test
```

- If the previous command succeeded (no error messages, and you now see a file `letter_match_test` in the list of files on the left), then in that same Terminal in the lower window, run your program by typing:

```
./letter_match_test
```

...and hopefully you see the expected results!

- When you are done, before you leave lab, download copies of your resulting versions of `letter_match.cpp`, `letter_match.h`, and `letter_match_test.cpp` from the CS50 IDE, and submit to Canvas this lab exercise's files:

  - Part 1's file **github-name.txt**

  - Part 2's file **cs50-success.txt**

  - Part 3's resulting files `letter_match.cpp`, `letter_match.h`, and `letter_match_test.cpp`