

FS 102
Software Everywhere
Spring 2017

Assignment 1

Assigned: Wednesday, January 25, 2017

Due: Wednesday, February 1, 2017 at the start of class

Introduction

Writers and presenters on the cutting-edge of technology use a version control system to manage, in a principled fashion, the artifacts produced during the phases of drafting and delivering an article or a talk. In this writing assignment, you will learn how to use the GitHub service to create and populate a Git repository with the `git` command-line tool and the Atom text editor. In particular, you will create an “About Me” article in a `README.md` file of a newly-created Git repository, add a header graphic to the Git repository and then correctly reference the graphic in the `README.md` file. Please carefully adhere to the following guidelines for success when you are completing this writing assignment and all of the subsequent writing, speaking, and practical assignments.

- **If possible, use the laboratory computers.** If it is absolutely necessary for you to work on a different machine, be sure to regularly transfer your programs to the Alden machines and check their correctness. Please remember that, as stated in the syllabus, students should try to complete assignments using the specialized workstations in the laboratory. If you cannot use a laboratory computer, then please carefully explain the setup of your laptop to a teaching assistant or the course instructor when you are asking questions.
- **Follow each step carefully.** Slowly read each sentence in every assignment sheet, making sure that you precisely follow each instruction. Take notes about each step that you attempt, recording your questions and ideas and the challenges that you faced. If you are stuck, then please tell a teaching assistant or instructor what step you recently completed.
- **Regularly ask and answer questions.** Please log into Slack at the start of a class or practical session and then join the appropriate channel. If you have a question about one of the steps in an assignment, then you can post it to the designated channel. Or, you can ask a student sitting next to you or talk with a teaching assistant or the course instructor.
- **Store your files in Git.** Starting with this laboratory assignment, you will be responsible for storing all of your files in a Git repository. Please verify that you have saved your source code in your Git repository by typing “`git status`” and ensuring everything is up to date.
- **Keep all of your files!** Don’t delete your programs, output files, and reports after you hand them in—you will need them again later when you study for the quizzes and examinations and work on the other laboratory, practical, and final project assignments.
- **Back up your files regularly.** Use a flash drive, Google Drive, or your favorite backup method to keep a copy of your files in reserve. In the event of a system failure, you are responsible for ensuring that you have access to a recent backup copy of all your files.

Disciplined Writing with Version Control

During this practical assignment and subsequent assignments, we will securely communicate with the GitHub.com servers that will host all of our projects. If you have not done so already, please perform all of the steps to configure the accounts on the departmental servers and the GitHub service. Throughout this assignment, you should refer to the following web site for additional information: <https://guides.github.com/activities/hello-world/>. As you will be required to use Git in all of the writing, speaking, and practical assignments and during the class sessions, please be sure to keep a record of all of the steps that you complete and the challenges that you face. You should also communicate, under the confines of the Honor Code, with other students to ensure that everyone is able to successfully complete each of the steps outlined in this assignment.

1. If you do not already have a GitHub account, then please go to the GitHub web site and create one—make sure that you use your `allegheny.edu` email address so that you can join the GitHub Educational Community as this step becomes necessary. Also, please make sure that you add a description of yourself and an appropriate professional photograph to your GitHub profile. For examples of what a professional GitHub profile might look like, please consider studying <https://github.com/una> and <https://github.com/gkapfham>.
2. If you have not already done so, please make sure that your SSH key is correctly uploaded to the GitHub servers and that you are ready to create your own GitHub repository. If you are not sure how to complete this step, please ask the course instructor or a teaching assistant.
3. Again, when you are completing these steps, please make sure that you take careful notes about the inputs, outputs, and behavior of each command. If there is something that you do not understand, then please ask the course instructor or the teaching assistant about it.
4. Since this is your first writing assignment and you are still learning how to use the appropriate software, don't become frustrated if you make a mistake. Instead, use your mistakes as an opportunity for learning both about the necessary technology and the background and expertise of the other students in the class, the teaching assistants, and the course instructor. Remember, you can use Slack to talk with the instructor by using “@gkapfham” in a channel.
5. Now, use your web browser to go to your GitHub profile and click the “Repositories” label near the top of the screen. Next, find and click the green button with the “New” label. At this point, you can create a new repository with the name “about-me”, ensuring that it is a public repository that is initialized with an empty `README.md` file. You can now click the “Edit” button and type in a brief description for this repository that will contain an article that introduces yourself to your audience. In a subsequent assignment, we will add the content that you create for this assignment to your own mobile-ready web site.
6. Now that your Git repository is initialized on the GitHub servers, it is time to “clone” it so that it is editable on laboratory computer. Click the green “Clone” button, highlight the command in the text area, copy this command to the clipboard, and open your terminal window. If you have not done so already, then create a `fs102S017` directory and change into it. Next, type the words “`git clone`” in your terminal window and then paste the command that you copied from GitHub's interface. At this point, you should see that your repository has downloaded to your computer from the GitHub server. Please see the course instructor or a teaching assistant if you are not able to successfully complete this step.

7. Make sure that you can find the `README.md` file that has been downloaded to your computer. To edit this file, you will need to use the `atom` text editor by typing “`atom README.md`” in your terminal window. After you modify this file — perhaps by adding a new sentence or revising an existing sentence — you should use the “`git add`” and “`git commit`” and “`git push`” commands to transfer your content to the GitHub servers. Please make sure that you write and revise in an incremental fashion, committing and pushing your sentences on a regular basis — generally, small modifications are better than large ones because they make it easier for you and your editor to track and comment on your developing article.
8. The writing assignment that you must complete requires you to write three to five paragraphs about yourself and how your life connects to the theme of this course, “Software Everywhere”. To get some inspiration on how you should write this type of content, please review the “Who is Guy?” and “Long Bio” that is available at <http://guykawasaki.com/guy-kawasaki/>.
9. You should complete this assignment in collaboration with two editors. You will be responsible for asking these two editors to read your writing and give you feedback through the GitHub issue tracker. An editor will provide feedback through the issue tracker by clicking the “Commits” tab in GitHub’s main interface, finding the commit number that contains the issue that you have identified in the writing, copying this number to the clipboard, and then using it when you report the issue. A writer will then consider the feedback, respond to it, and, when appropriate, resolve the issue that the editor raised. Each writer should also review the writing of the other two team members. While it is acceptable to read and mark printed versions of the article, all discussion should be visible in the GitHub issue tracker.
10. Even though we will work on this assignment during at least two class sessions, you should budget enough time to outline, draft, discuss, and frequently revise this writing assignment. Remember, your focus should be on publishing an article that is concise, accessible, and error-free. Also, the main text of this writing assignment should be accompanied by a “TL;DR” or a “Too Long; Didn’t Read” that summarizes the key points about yourself. Please see the instructor if you confront difficulties when using GitHub or if you have additional questions.

Summary of the Required Deliverables

This writing assignment invites you to complete the following tasks. After completing the assignment, please make sure that you submit a printed version of your article to the course instructor.

1. Create a professional GitHub profile that will host all of your writing and presentations.
2. Upload your ssh key to the GitHub system, in support of completing the later assignments.
3. Create a Git repository called `about-me` and download it to your computer workstation.
4. Write a short three to five paragraph article introducing yourself and the course theme.
5. Review, through multiple GitHub issues and a full-featured discussion, your peers’ writing.

In adherence to the Honor Code, students should complete this assignment on an individual basis. While it is appropriate for students in this class to have high-level conversations about the assignment, it is necessary to distinguish carefully between the student who discusses the principles underlying a problem with others and the student who produces assignments that are identical to, or merely variations on, someone else’s work. Any deliverables that are nearly identical to the work of others will be taken as evidence of violating Allegheny College’s Honor Code.