**Exercise on GitHub and Git**

In this course, we will be using GitHub for assignment submissions.

The goal of this exercise is to get you started with Git and GitHub. Even if you are using Git and GitHub regularly you need to do this exercise and submit it. If you already did it, you still need to create the required repositories and fill out the required forms!

Please follow the instructions completely. Work that does not follow the instructions (including naming conventions) will NOT be accepted and will result in a grade of 0.

**Part 1:**

Create a GitHub account (if you do not have one)

<https://github.com>

Submit your GitHub username in the required form.

The file should be organized alphabetically by last names.

In the future I will check your work directly from your GitHub account.

**Part 2:**

Install Git bash <http://git-scm.com/downloads> and browse the documentation.

**Part 3:**

Answer the following questions.

What is GitHub? When was it created? Why? By who? What similar platforms exist? Why would you use such a platform? (Answer between 5 and 10 lines)

Answer these questions in a Word file called *LastnameFirstnameGitTutorial-mm-dd-yyyy.docx*. Please respect the naming conventions!

GitHub is a development platform used for controlling Git. It is essentially a web-based hosting service used for version control and source code management. It was created in 2007, and launched in 2008, by Tom Preston-Werner, Chris Wanstrath, and PJ Hyett. Some similar platforms to GitHub are: GitLab, BitBucket, SourceForge, and Launchpad. The reason to use this type of platform is ease of code management. Platforms such as GitHub and GitLab provide developers a place to store and share their code, while also keeping track of changes. It’s a simple way to allow others collaborate with you, while still controlling what changes are ultimately made thanks to commit ID’s to look at what changes are made everytime something is updated, and push and pull requests if one user is in charge of a repository. These platforms provide user-friendly interfaces and simplify the process of using Git.

**Part 4:**

Go through the Git tutorial here: <https://try.github.io>. While doing the tutorial, save your work the *LastnameFirstnameGitTutorial-mm-dd-yyyy.docx* file.

**Part 5:**

Define the following terms in the context of Git (2 lines maximum):

* Repository – similar to a project folder, the repository contains all the files, documentation, and revision history for a project.
* Commit – a revision to a file, or a set of files. A commit is similar to saving a new version, except Git creates a new ID for each commit in order to track the changes.
* Push – sending your committed changes to a remote repository, such as one hosted on GitHub.
* Branch – a parallel version of a repository. It is contained within the repository, but will not affect the master branch.
* Fork – another copy of another user’s repository that is kept on your account. With a fork, you can freely make changes without affect the original project.
* Merge – applying changes from one branch (either in the same repository or fork) to another. This often occurs through a pull request.
* Clone – a copy of a repository that lives on your computer, or the act of making that copy.
* Pull – when you fetch *in* changes and merge them. For example, pulling changes from the remote repository into your local files.
* Pull request – proposed changes to a repository submitted by a user and accepted or rejected by a repository’s collaborators.

Answer these questions in the *LastnameFirstnameGitTutorial-mm-dd-yyyy.docx* file.

**Part 6:**

Push the Word file in **YOUR** GitHub account in a repository called ***CSXXX20XX***. Please respect the naming conventions! You will use this repository this semester. Your repository will be accessible at: [https://github.com/yourpseudo/CSXXX20XX](https://github.com/yourpseudo/CSXXX2016).

**Part 7:**

Retrieve the README.md file at:

<https://github.com/paceuniversity/courses>

Add your name (lastname, firstname) in the file, **add a comment (date and time) (REQUIRED)**, and update the README.md file at: <https://github.com/paceuniversity/courses>. Your name should appear at the provided <https://github.com/paceuniversity/courses>. Please check the work of previous students.

List the commands and strategy you use to do this part of the exercise in the *LastnameFirstnameGitTutorial-mm-dd-yyyy.docx* file and push it to: [https://github.com/yourpseudo/CSXXX20XX](https://github.com/yourpseudo/CSXXX2016).

Please note that I WILL have to accept the change before it appears for you. Hint: I will have to merge your pull request and you will get an email when I will do it.

Commands used: fork and edit file, then submit pull request.

**Part 8:**

Add an issue with title “GitHub training” in your repository called CSXXX20XX. Issues will be used for tasks and bug reports.

**Part 9:**

Edit the main page of the wiki in your repository called CSXXX20XX. Add the title “CS XXX 20XX” to the page. The wiki will be used for documenting your workin the class.