


CSCI 2113 Lab 1

Bo Mei

Lab Info

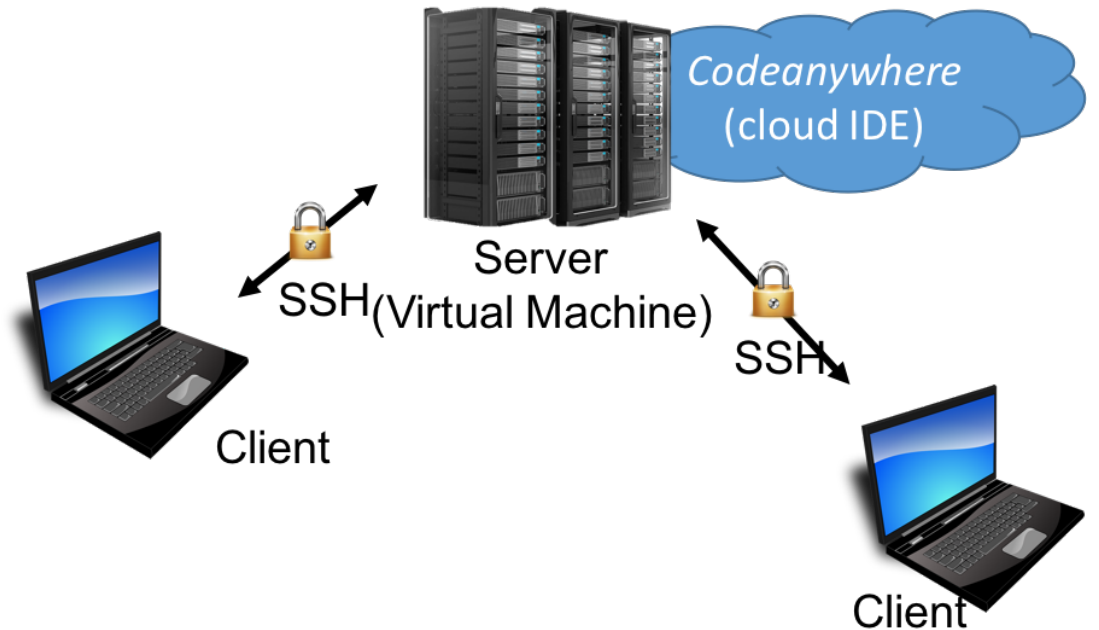
- TA: Bo Mei – bomei@gwu.edu
- Grader: Yawei Wang – yawei@gwu.edu
- Office Hours:
 - Mondays 10:10-11:00 AM and 1:30-2:10 PM
 - TOMP 405
- Course Website:
faculty.cs.gwu.edu/~timwood/wiki/doku.php/teaching:f2016:cs2113:home

Get Started

- Go to www.github.com to create a *GitHub* account.
 - Let me know your username at the end of the class.
- Go to www.codeanywhere.com and login using your *GitHub* account.
 - Click  to login. No need to create a separate account for *Codeanywhere*.

Unix System

- Unix and Linux designed to host many users.
- Typically use remote login to access.
- SSH: Secure Shell.
- Container: Think it as a disk partition on a computer (Virtual Machine) in the cloud.



Basic Unix Commands and Use *Codeanywhere*

<code>pwd</code>	Print current directory
<code>ls</code>	List directory contents
<code>ls -l</code>	List in detail
<code>mkdir d</code>	Create directory "d"
<code>rmdir d</code>	Delete <i>empty</i> directory "d"
<code>cd d</code>	Change directory to "d"
<code>touch a.txt</code>	Create file "a.txt"
<code>cat a</code>	Display contents of file "a"
<code>cp a b</code>	Copy file "a" to "b"
<code>mv a b</code>	Move or rename file "a" to "b"
<code>rm a</code>	Delete file "a"
<code>~</code>	Home directory
<code>..</code>	Parent directory
<code>.</code>	Current directory

- Try the commands.
- The left directory column will not refresh automatically. Right click on "cs2113" (container), and then click "Refresh".
- Double click on the file name in the left directory column to open it.

Git & GitHub

- *Git* is a version control tool to track changes to a set of files.
 - Safely keeping files.
 - Safely synchronizing for a team of programmers.
 - Easily accessing code across multiple computers.
- *GitHub* (github.com) is a website that provides a hosting location for the files and a convenient web interface to them.
 - *Git* (git-scm.com) can be used without *GitHub*.
 - Having a web interface is very helpful.

Basic terminology for *GitHub*

- **Repository:** Similar to a project's folder. It contains all of the project files and stores each file's revision history.
- **Fork:** A personal copy of another user's repository that lives on your account.
 - Online copy → Another online copy
 - Allowing you to make changes without affecting the original.
 - Remaining attached to the original.
- **Clone:** A copy of a repository that lives on your computer (locally) instead of on *GitHub*.
 - Online copy → Local copy

Basic terminology for *GitHub*

- **Commit/Revision:** Like taking a snapshot. Save the files and keep record of what changes were made.
 - You and others can see the changes.
 - Allowing you to roll back to previous versions.
- **Pull:** Fetching in changes to the local copy and merging them.
 - Online copy + Local copy → Local copy
- **Push:** Sending the committed changes to *GitHub*.
 - Local copy → Online copy

Use *GitHub*

- Go to github.com/leachim6/hello-world and click “Fork” at the top-right corner under your avatar.
 - If a window pops up and lets you choose a forking destination, choose the one that has your username.

Basic *Git* Commands

<code>git status</code>	List the files you've changed and those you still need to add or commit
<code>git add <filename></code> <code>git add *</code>	Prepare the file(s) to commit
<code>git commit -m "Commit message"</code>	Commit/save changes locally
<code>git push origin master</code>	Push changes to <i>GitHub</i>
<code>git pull</code>	Fetch and merge changes from <i>GitHub</i> to local

Thank you!