

## ATLS 4120: Mobile Application Development Software Control Management (SCM) and Github

### Source Control

Source control management systems handle version control for software projects and enable collaboration so multiple people can work on projects from anywhere.

Terminology:

- A repository is where the projects are stored. Git has local and remote repositories
- The copy you're currently working on is your working copy
- Commit lets you save your changes to your local repository
- Sync pushes your project to the server repository
- Clone lets you make a copy of a project
- To get a project from the remote repository you do a pull
- The main line of a project is a trunk. With multiple people working on a project you can create a branch of the project to work on and then merge the branch back into the trunk.

### Github

Create an account on github. You can use command line or download the git app

- App <https://desktop.github.com/>
- Set up <https://help.github.com/articles/set-up-git>
- Hello World <https://guides.github.com/activities/hello-world/>

### Labs/Projects:

You can create a free public repo with any github account.

If you want a free private repo go to <https://education.github.com/> and request a student account by going to the GitHub Student Developer Pack.

Create a new repo with your name and *MAD* (ie AileenPierce\_MAD)

If you make it private go into settings and add me, aileenjp, as a collaborator so I can see your work.

You will be using ONE repo for the year that will hold all the labs and projects you turn in.

In the github app clone your new repo

Choose a folder on your computer that you'll use only for your submitted labs and projects. (I recommend this being a separate folder than your working app folder so you always have the original separate and you separately control what's on github).

Now this folder and your repo are connected.

Copy final labs and projects into this folder.

In the git app go into your repo and under changes you'll see your project. Put in a useful commit summary (include FINAL if you're turning in your lab) and hit Commit and Sync. Make sure it synced to your repo on github.com by looking at your repo in your browser.

To create a gitignore file go to <https://www.gitignore.io/> and add the following: OSX, Xcode, Swift, AndroidStudio, Java, Kotlin. It will create a gitignore file for you.

### Class repo:

If you want to keep an updated copy of the class repo on your computer, go to the class repo CUATLAS/Fall18\_MAD\_examples [https://github.com/CUATLAS/Fall18\\_MAD\\_examples](https://github.com/CUATLAS/Fall18_MAD_examples) and clone to your computer by choosing open in desktop (if you're using the app).

Chose where on your computer you want to locally save the class repo.

You'll now see the repository under your Github repositories in your desktop app.

Just sync it when there are changes and your local copy will be updated.

You can also just download my repo but it will download the whole repo each time.  
You can also issue pull requests.

Xcode also integrates with github. We'll look at that later in the semester.