

Day 1

Goals

- Course introduction
- Setup Tools necessary for coding and git
- Review the basics of python programming
- Introduce the basics of git version control

Introduction

- Please check out the Syllabus.
- Extra help
- General Structure of the course
 - projects
 - group work
 - tests
 - honor code
 - final project
- Sign up for GitHub
- Download PyCharm CE
- Find out if you have an M1 Mac or not

Introduction to Python

To get started writing a python program you can open a new project in PyCharm called ‘CS570_Day_1’.

- Show students basics of Python
 - How to make a function using def
 - How `__name__ == "__main__"` works
 - How to run a program in PyCharm
 - How to run the debugger in PyCharm

Introduction to git and GitHub

- What is git
 - It is a method of version control.
 - Version Control is a way to make changes but not lose what you had previously done.
 - * Many times in writing a program you want to change things that work now, so that they work better.
 - * You have to break to build it.
 - git has a way to putting landmarks in your changes called “commits”
 - You make a commit when you have made something complete and every commit comes with a message about what you did
 - git also is helpful for having several people work together on the same project
 - we do this through the idea of “branches” different people work on different branches and then are able to merge their code together when they are done
 - Let’s do an example:
- GitHub is a place that records the git changes that happen to a project and make the sharing of information possible.
- GitHub is a place where you can share your progress on a project and then merge it with other’s work.

Breaking projects into separate files and branching

Two ideas come together to make git and GitHub and Python work so seamlessly together. Object-Oriented Programming and branches.

- Introduce OOP
- Introduce Branching

Homework

Tonight's homework is to complete a survey about your programming background.

<https://forms.gle/UX9AcDwW9Dz3DeYK7>