CS 360: Open Source Software Development

Fall 2016

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Assignment Zero

- Fill out the survey on the class web page
    - DUE: 6:59 pm, Tuesday, Aug 30.

- I want to know your software development background and interests

- Be prepared to discuss your answers on Wednesday.

What is Open Source?

Free vs Open

Proprietary

Goals

Fork

Welcome!

- ## How did I prepare for this class (Sabbatical, Spring 2014)
  - ### GitHub
    - #### http://github.com/chaddcw
  - ### http://openstates.org
  - ### http://mozilla.org
  - ### https://github.com/papers-we-love/papers-we-love
  - ### https://github.com/IQAndreas/github-issues-import

```
2 ■■■ □□  openstates/or/legislators.py

      ⚒     @@ -96,6 +96,6 @@ def scrape(self, chamber, term):
 96    96                        name='Capitol Office',
 97    97                        address=info['Capitol Address'],
 98    98                        phone=phone,
 99         -              email=info['Email'].attrib['href'])
       99   +              email=info['Email'].attrib['href'].replace("mailto:",""))
100   100
101   101            self.save_legislator(leg)
```

Success

- Emily Stolfo's* 5 Hacker Habits

    1) Treat the Internet as your textbook

    2) Be able to debug code you didn't write

    3) Build something to solve a real-world problem

    4) Engage with the community

    5) Think critically about code

    *Adjunct professor at Columbia University, MongoDB Ruby Driver engineer, 10Gen

    http://opensourcebridge.org/sessions/1083

Goals

- Understand what Open Source Software is

    - For example: What is a software license?

- Understand the Open Source Development model

    - Tools

    - Communication / Collaboration / Culture

    - Process

    - get in the habit of speaking "Open Source"

    - get some Linux experience

- Practice the Open Source Development model

- Be ready to **Participate** in a live Open Source project

- As much in class practice time as possible!

Syllabus

- No book

    - various online readings / videos

    - I expect you to complete the readings before class

- Schedule

- Grading

    - Assignments/Exams/Quizzes / **Pre-class Moodle questions!**

    - **Presentations**/Participation/Attendance

- Policies

    - Late Policy

    - Grade Complaints

- Moodle

Exams

- First exam
    - ~ Oct 5
    - Open Source tools, process, vocabulary, concepts

- Second Exam
    - ~ Nov 11
    - Python programming

- Final Exam
    - ~ Dec
    - No exam, present your final project.

Requirements

- Very diverse set of backgrounds here!

- Lab days (Skill building days):

  - You must do assigned reading before class

  - You will have time in class to complete exercises

- Presentations

- Command line / Linux

- Start with Eclipse C

- GitHub

- Python

Roles

- My Job:
  - provide practice with tools
  - provide practice with open source methodology
  - guide you through the evaluation of open source projects
    - keep you from going down the wrong path
  - provide as much in-class practice as possible
  - guard against some project becoming a huge time sink

- Your Job:
  - effort is the most important quality
  - come see me if you feel lost or confused
  - do the readings
  - come to class prepared to discuss
  - practice the tools and methodology outside of class
  - participate - there are many ways to participate

Differences from CS 150/250

- In CS 250, Doug/Shereen/me had the solution to the project

- For some assignments here, I have no solutions

  - real world problems

- I do have guidance, experience, and tips on how to find the solution or determine the lack of solution

  - you must participate and ask questions!

- Remember, what do you in Open Source is public.

Mozilla

- Firefox
  - Thunderbird
  - Seamonkey

- Good, well documented process
- Easy to build from source

- Lots of good examples
- Interesting forks

Assignment 1 – Group work

- Find 2 Open Source projects you use or are interested in

- For each project, answer the following questions:

    - How many people are working on the project?

    - Does the project clearly define the communication channels between developers?

    - How active is the project?

    - Are there clear starting points for someone interested in helping with the project?

    - How are bugs and feature requests tracked?

    - Do you think you could download and **install** this project?

    - Do you think you could download and **build** this project?

        - what are the dependencies?

- Post your two project names on Moodle.

- Be prepared to present your findings in class on Sep 7!

    - email me your answers

http://www.xcitegroup.org/softhum/doku.php?id=f:assignment_ossfieldtrip2

Resources

- http://lwn.net/
- http://www.osnews.com/
- http://distrowatch.com/

- http://freecode.com/
- http://www.ohloh.net/
- http://github.com/
- http://sourceforge.net/

- http://opensourcelist.org/
- http://opensource.org/

What is going on in Portland?

http://calagator.org/