
sddec20-02: Laptop Lending Status System

Week 3 Report

February 17 - March 1

Team Members

Zoe Sanders — *Software*

Farouk Al Obaidi — *Software*

Camden Thomas — *Hardware*

John Wagner — *Hardware*

Aaron Thune — *Hardware*

Ryan Ray — *Software*

Summary of Progress this Report

In this reporting period, our team's vision for both the software and hardware design became much more clear. Software side began interfacing with the LibCal API to begin investigating how we can gather information about each device for lending. The hardware side is compiling a list of parts that are needed as well as prototyping a case for the bagged device "masterlist" of LEDs.

Pending Issues

Camden Thomas:

- I am still unsure of the exact format the information about the raspberry pi clusters will use when provided to the client portal.
- I do not have endpoint names that I can expect to use to request data.

Ryan Ray:

- We still need to discuss the exact apis used to make calls between modules

Farouk Al-Obaidi:

- Some API calls need higher permission than our access token.

John Wagner:

- Don't have measurements and specifics for case.

Zoe Sanders:

- Very unsure of what interfacing with the Raspberry Pis is like (i.e, what libraries are supported and how code will work on Pis). Need to do more research.
- Uncertain of what information specifically will be sent between Pis. Need information from the mapping module.

Aaron Thune:

- Electronics still need to be ordered, thus it may take some time to arrive.
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Plans for Upcoming Reporting Period

Camden Thomas:

During the next couple weeks, I plan on continuing to work on the client UI and hopefully get everything working with "dummy" data.

Ryan Ray:

During the next two weeks I will continue working on the mappings module and probably start working on another module; possibly the backend for the admin interface.

Farouk Al-Obaidi:

The next step is to figure out the status for each item. Based on the API I have an idea of the logic I am going to use to figure out the status of each equipment. However, at the moment, some API calls have higher permission than our access token. I am waiting for the client to give me access to the rest of the API so I can write the logic to figure out the status of each item.

John Wagner:

Getting measurements and specifics for case.

Zoe Sanders:

I plan to create a working prototype of the Raspberry Pi communications system and, if we have the Pis in time, hopefully test the system with Pis. If I finish this prototype before Raspberry Pi testing is possible, I will contribute to whatever of the frontend web-interface is left to do.

Aaron Thune:

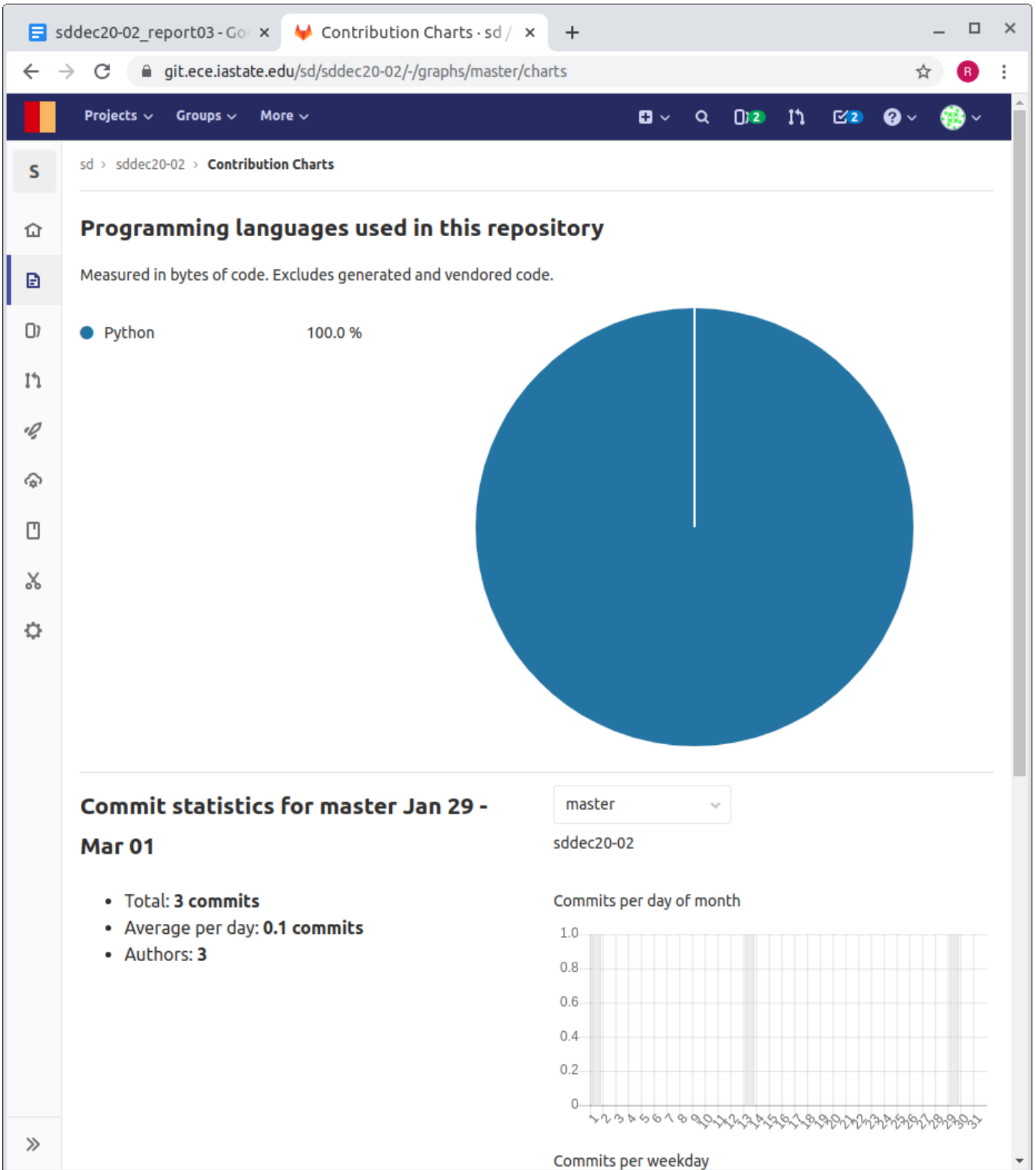
I plan to give a list of needed electronics to our clients in order to get them ordered. While we wait for them to arrive I will setup a Python development environment on the OS of the Raspberry Pi I do have. I also intend to continue prototyping the LED drivers.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Zoe Sanders	I began the creation of the Master-Slave raspberry pi communication. Tested using Request Library with Python and Postman. The previous week I finished the proxy server for API requests that we originally planned for the project.	5.5	11
Farouk Al Obaidi	I worked on LibCal API. I wrote code that will fetch and output all the laptop/equipment locations(LID and name), the categories of items in each location (CID and name), and the list of items available in each location (ID and name).	6.75	13.5
Camden Thomas	During the last two weeks I have worked on the Web access portal for the Client UI. The web page has been created and I have started working on some of the functionalities of the "System Overview " page in the form of javascript. I have also conducted research to determine the best way of requesting information about the raspberry pi clusters. I have determined that the best way to do this would be through ajax calls to an API. I have begun learning how to use ajax in an efficient and proficient manner.	6.875	13.75

John Wagner	During the past two weeks, I have been working on designing a prototype case to hold the LEDs and components on the bars. I am using AutoDesk Inventor to model this. This turned out to be more difficult than I suspected. I also took a few rough measurements of the bars.	6.5	12.5
Aaron Thune	I began compiling a list for needed parts to provide to clients and continued prototyping an LED driver using shift registers.	6.0	12.0
Ryan Ray	<ul style="list-style-type: none">● Over the past 2 weeks I updated our biweekly report generator to pull issues directly from gitlab (on branch r3-report). I added the ability to generate a word doc instead of html.● I came up with an initial architecture for our software and presented the architecture to my team at the weekly meeting.<ul style="list-style-type: none">● I started working on the mappings/storage module for our project (on the mappings branch in gitlab)	5.63	13.63

Gitlab Activity Summary



sddec20-02_report03 - Go x Contribution Charts · sd / x +

git.ece.iastate.edu/sd/sddec20-02/-/graphs/master/charts

Projects Groups More

Commit statistics for master Jan 29 - Mar 01

master
sddec20-02

- Total: **3 commits**
- Average per day: **0.1 commits**
- Authors: **3**

Commits per day of month

Day	Commits
1	1
10	1
15	1
Other days	0

Commits per weekday

Weekday	Commits
Sunday	1
Monday	0
Tuesday	0
Wednesday	1
Thursday	1
Friday	0
Saturday	0

Commits per day hour (UTC)

Hour (UTC)	Commits
10	1
11	1
15	1
Other hours	0

