To: Prof. Jeffrey Miller
From: Vincent Jin

Multiverse Documentation

Github: https://github.com/jinnkafka/MULTIVERSE

Project Description

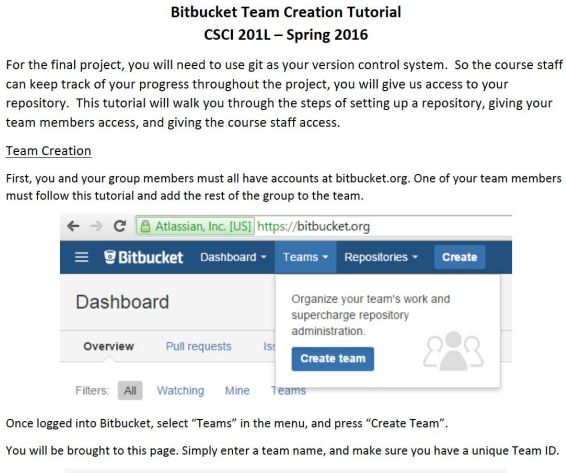
Multiverse is a git monitor project that shows the progress of multiple teams' projects. The final product, a web-base application, is built with HTML, CSS, Javascript, GitInspector API, USC Aludra server, and Shell script.

Project Set-up

Note: Step 4-6 can take long time (1-3 hours) since you will need to accept all the team invitation through email manually and clone their repository one by one into your local machine.

1. Download and install following tools on your Mac:
    a. SourceTree: https://www.sourcetreeapp.com/download/
    b. FileZilla: https://filezilla-project.org/download.php
    c. GitInspector: https://github.com/ejwa/gitinspector

2. Read the Bitbucket Tutorial:
    http://www-scf.usc.edu/~csci201/assignments/BitbucketTeamTutorial.pdf



Bitbucket Team Creation Tutorial
CSCI 201L – Spring 2016

For the final project, you will need to use git as your version control system. So the course staff can keep track of your progress throughout the project, you will give us access to your repository. This tutorial will walk you through the steps of setting up a repository, giving your team members access, and giving the course staff access.

Team Creation

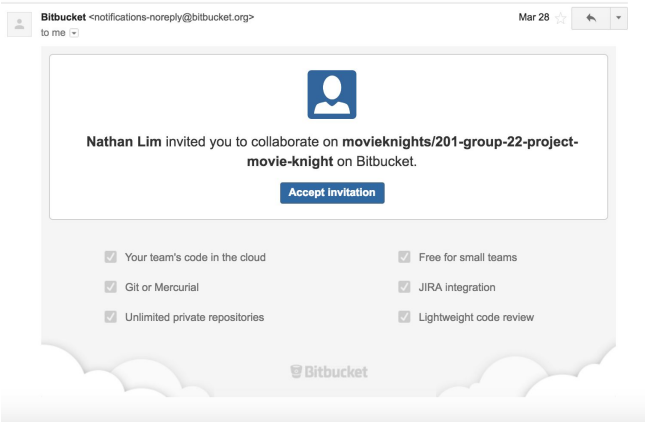
First, you and your group members must all have accounts at bitbucket.org. One of your team members must follow this tutorial and add the rest of the group to the team.

Once logged into Bitbucket, select "Teams" in the menu, and press "Create Team".

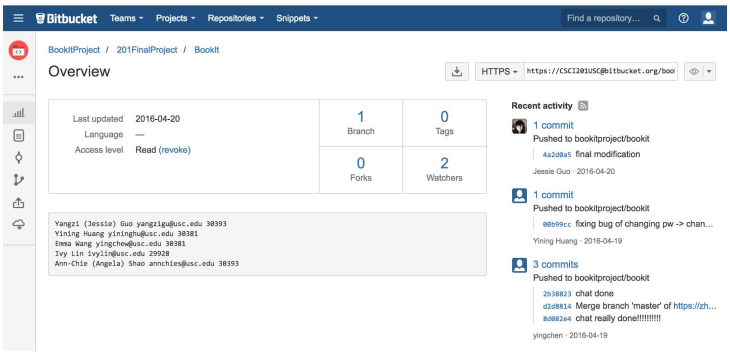
You will be brought to this page. Simply enter a team name, and make sure you have a unique Team ID.

3. Log in Gmail and Bitbucket.org with the following credentials:
    a. Username: CS201USC@gmail.com
    b. Password: [Ask Prof.Miller]

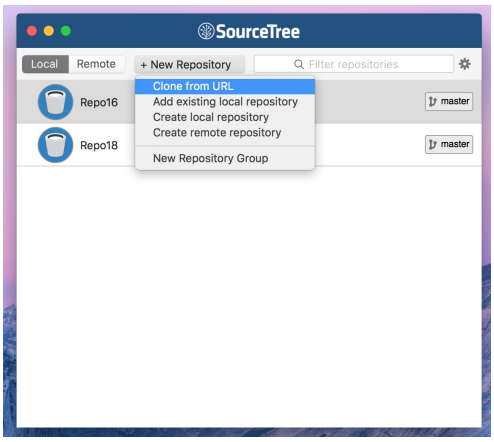
4. Assuming all the teams followed the Bitbucket Tutorial, you should be able accept the teams' invitations through emails, and you should have access to their repositories.

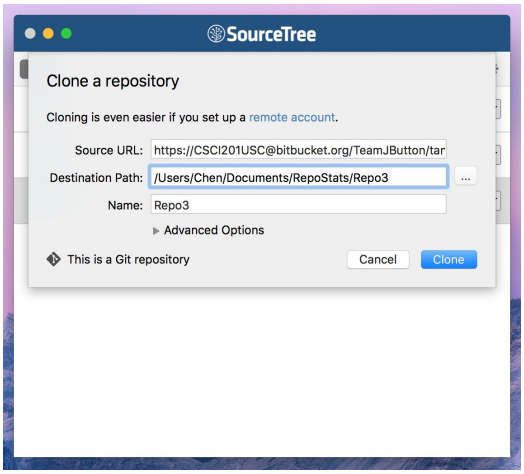


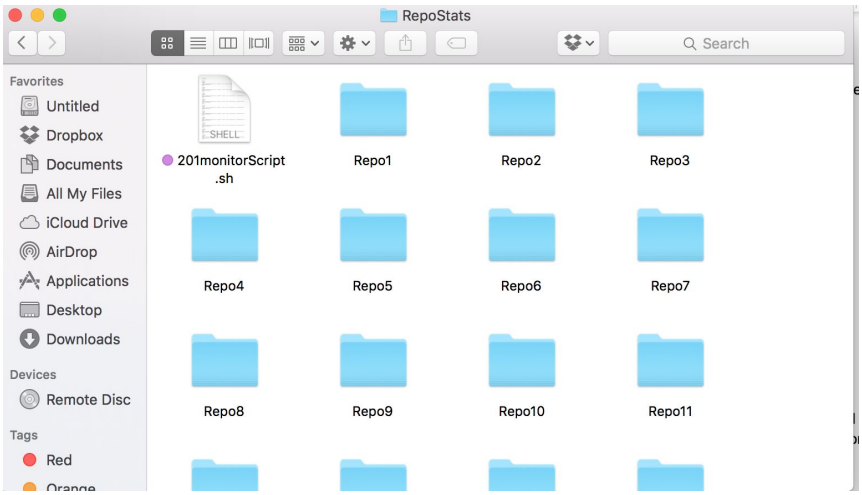
5. Once the invitation is accepted, you should be able to see the team's Bitbucket page:



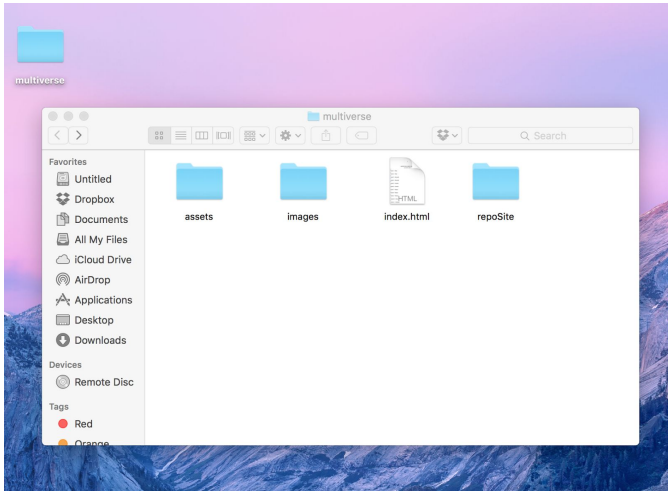
6. Copy the repository's HTTPS address and clone the repository (user either Terminal or SourceTree) into your local machine. You want to create a local folder named "RepoStats", and inside the folder, contains the repository folder for all the teams. Download *201monitorScript.sh* from GM project's Github, and put the shell script into the RepoStats folder.







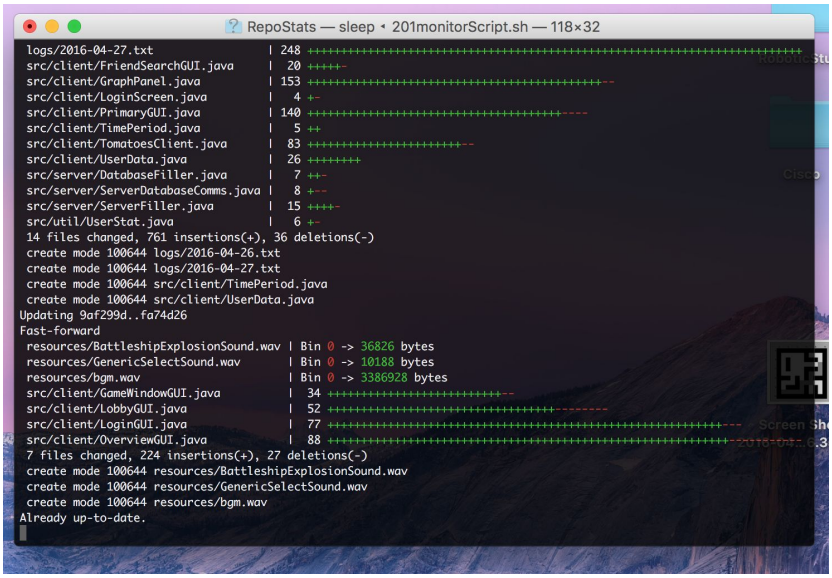
7. Create a folder on your desktop, named “multiverse”. Download “assets” folder, “images” folder, and “index.html” from multiverse project Github and put them inside the the newly created “multiverse” folder on your desktop.



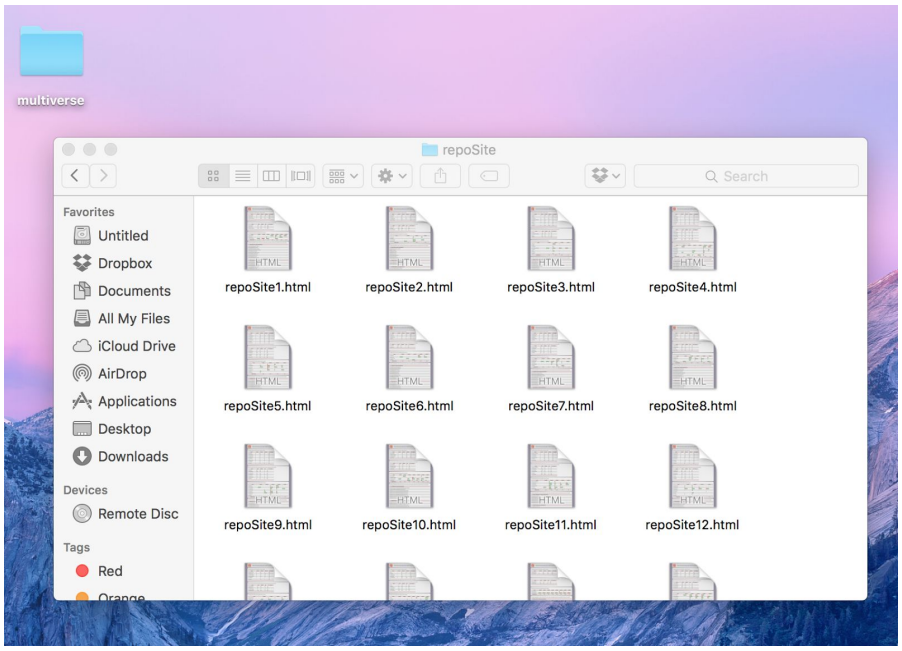
8. Read over *index.html* and understand how to modify the HTML code. All you need to change inside the HTML code is Team name inside <h2> tags.

```
<article class="thumb">
    <a href="http://www-scf.usc.edu/~chenjin/multiverse/repoSite/repoSite1.
    html" class="image"><img src="images/thumbs/01.jpg" alt="" /></a>
    <h2>Team 1 -- Kien</h2>
</article>

<article class="thumb">
    <a href="http://www-scf.usc.edu/~chenjin/multiverse/repoSite/repoSite2.
    html" class="image"><img src="images/thumbs/02.jpg" alt="" /></a>
    <h2>Team 2 -- Kien</h2>
</article>

<article class="thumb">
    <a href="http://www-scf.usc.edu/~chenjin/multiverse/repoSite/repoSite3.
    html" class="image"><img src="images/thumbs/03.jpg" alt="" /></a>
    <h2>Team 3 -- Kenneth</h2>
</article>

<article class="thumb">
    <a href="http://www-scf.usc.edu/~chenjin/multiverse/repoSite/repoSite4.
    html" class="image"><img src="images/thumbs/04.jpg" alt="" /></a>
    <h2>Team 4 -- Kenneth</h2>
```

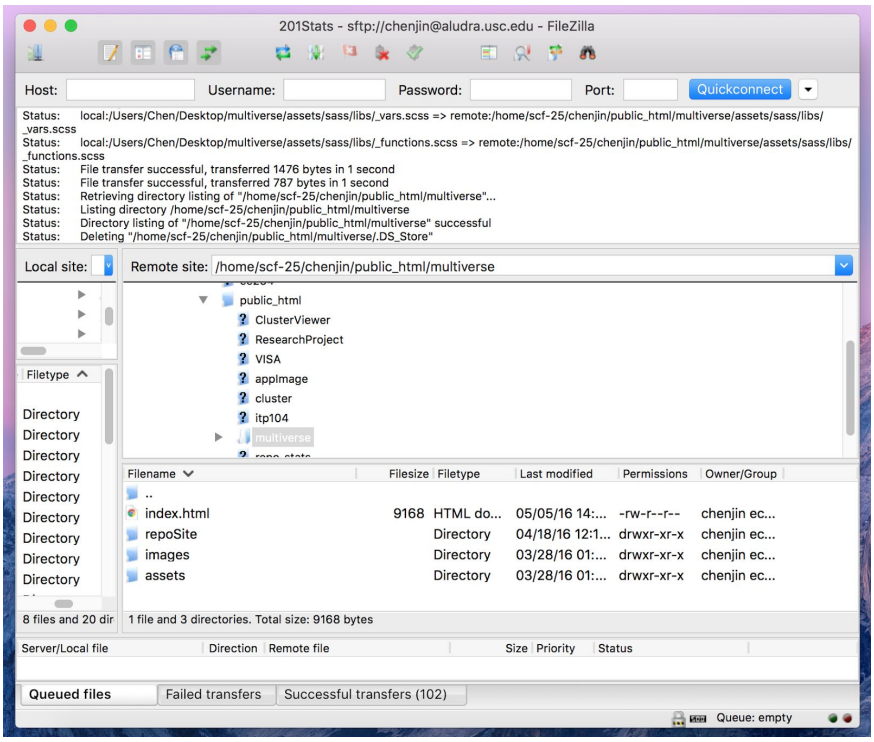
9. Read over *201monitorScript.sh* and understand how the script works. It first *cd* into each individual repo folder, and then do a *git pull* to update the repo. Once the repo is updated, it will run *gitinspector* to generate a HTML report and store the HTML file into "*/Desktop/multiverse/repoSite/repoSite1.html*", which is a folder named "repoSite" inside a folder named "multiverse", and the "multiverse" folder is on my "Desktop". To run *201monitorScript.sh, cd* into "ReoStats" folder from terminal, and type command *./201monitorScript.sh*. You should see the following graph when the script is running.



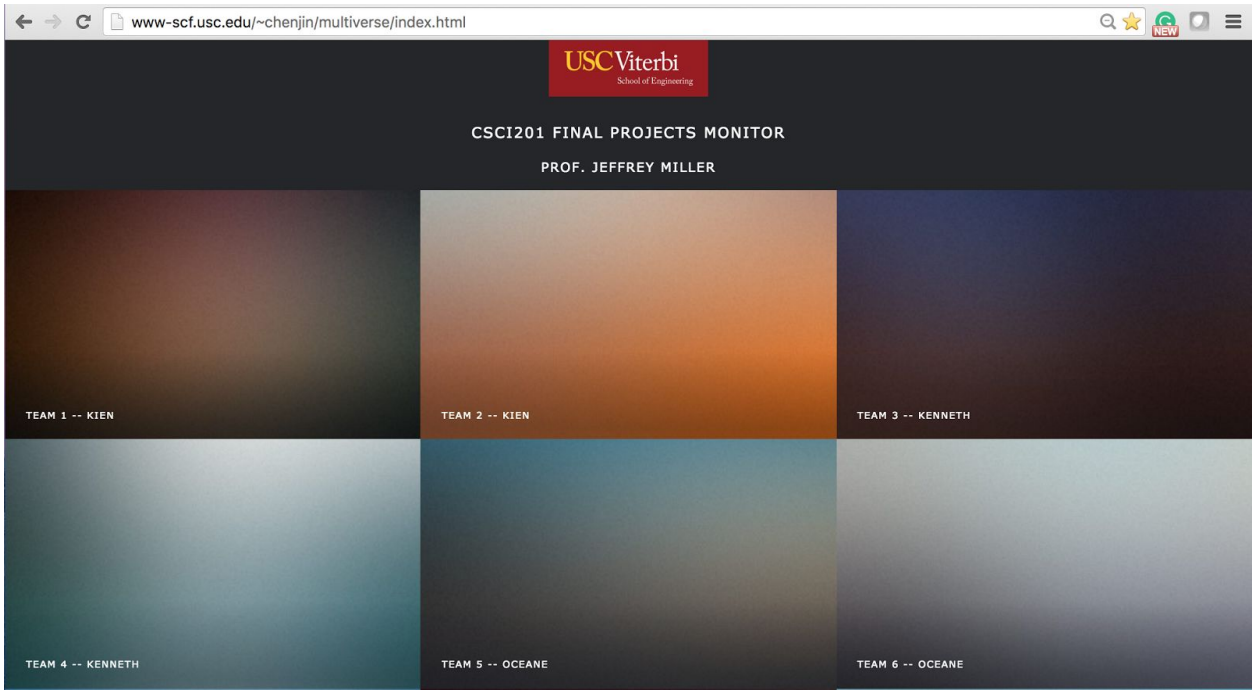
10. After running the shell script, it will automatically generate all the HTML pages for all the teams.



11. The final step is to upload the “multiverse” folder onto USC’s Aldura server. The easiest way to do this is by using FilleZilla.



12. Once the “multiverse” folder is uploaded to FilleZilla, type the correpsonding web address in your web browser and you will see Multiverse running !



Future Improvement

1. Write a Github tutorial for students to use. It should be similar to the existing Bitbucket tutorial.
2. Automatically run the Shell Script and automatically upload the updated “repoSite” folder onto USC Aludra Server. Possibly using cron command and PHP.