



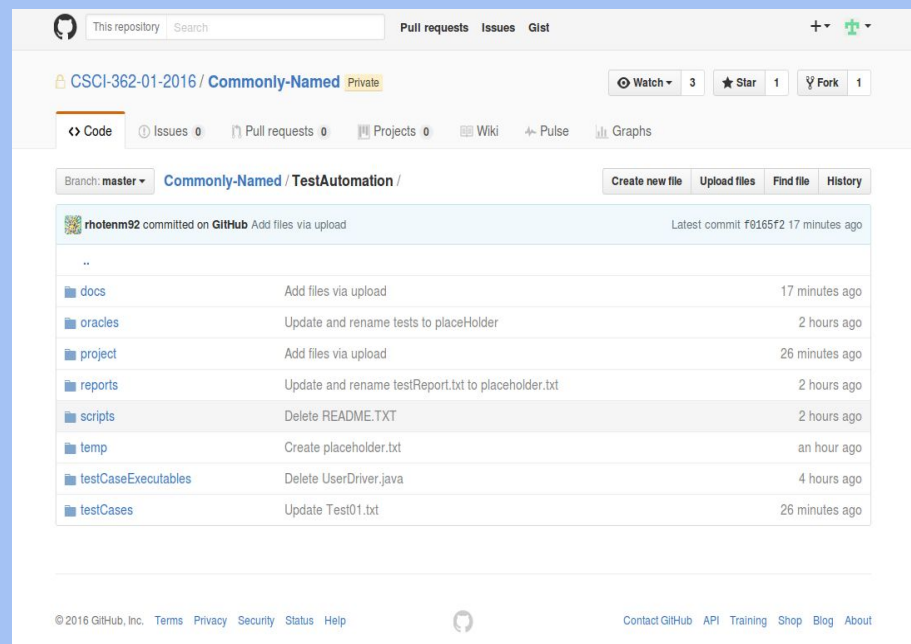
# Developing A Testing Framework With Sakai

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## Introduction

The purpose of this project was for us to learn the basics of Test Driven Development. Specifically:

- Scripting in ubuntu
- Navigating Directories
- Creating an automated testing Framework
- Testing said frame work
- Utilizing Github

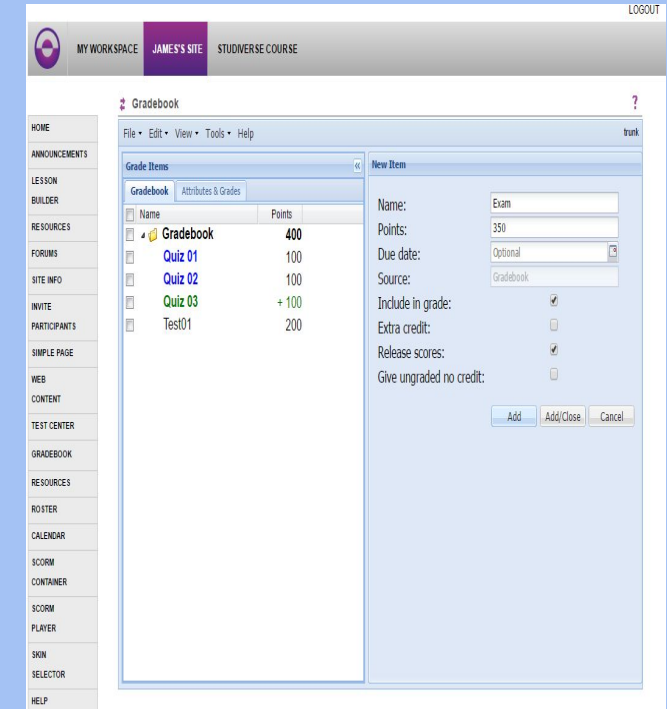
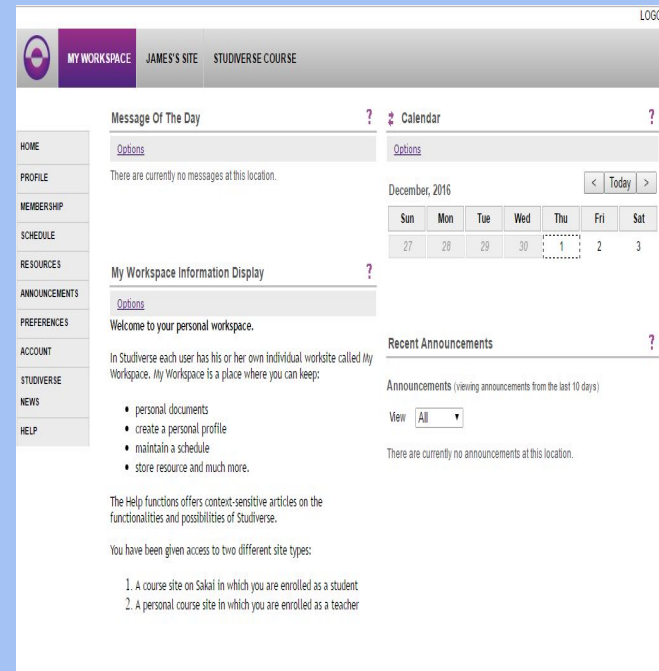


## Sakai

Sakai is a tool similar to CofC's oaks which can be used for many purposes. To name a few:

- Quizzes, assignments, and tests
- Managing class rosters
- Recording Grades

It is written in java, a language all three of us are familiar.



## The Framework

The automated testing framework utilizes a script. The script reads a test case, compiles the source code and the drivers, and then runs the drives while also passing in parameters. The driver then writes the results to a text file which the script then compares the expected result of the test case, putting the results into an HTML file which is opened on the machines browser to display the results.

## Fault Injection

To close the project we conducted fault injection, or inserted faults into the source code with the intention of it causing test cases to fail. This was useful in allowing us to test our framework, as well as help us better understand the code.

## Conclusion

As a group we were able to learn the basics of scripting, and the methodology of TDD. The most important lessons learned however, would be the importance of time management, and value of teamwork. This project would have been much more difficult without a group to assist. We were all able to work with our strength to achieve a good level of synergy.

