

Team Number: May15-31
Project Name: CoderLab
Client / Advisor: Joe Zambreno
Due: 11/10/2014

Week 10 Report (11/4/14 - 11/10/14)

Name (Role)	Advisor Meeting (11/6)	Team Meeting (11/10)	Week Hours	Total Hours
Jake Bertram (Comm)	P	P	5	50
Dan Smith (Key Concepts)	P	P	4	41
Kyle Tietz (Lead)	P	P	5	41
Jacob Wallraff (Webmaster)	P	P	4	37.5
Erich Kuerschner (Webmaster)	AE	P	5	39
Bryan Passini (Comm)	P	P	5	51

Key: P - Present AE - Absent, Excused AU - Absent, Unexcused

Advisor Meeting Notes (11/6)

- Demonstrated our collaboration prototype to Zambreno
 - Impressed with the basic functionality
 - Will continue to improve features for next demonstration
- Demonstrated Docker-ized shell streaming server connecting to interactive browser terminal
- Will need to have further discussions on file system and shell streaming issues (see pending issues)
- Will meet in two weeks (11/20)

Team Meeting Minutes (11/10)

Discussion

- Worked on Project Plan v2 together
 - Improving existing sections
 - Adding content, notably system overview, verification, and Gantt chart for schedule

Individual Accomplishments

Jacob Bertram

- Struggling with docker
 - But figuring it out
 - Discovered Docker Remote API, I wish I'd noticed earlier (https://docs.docker.com/reference/api/docker_remote_api/)
 - Found a slick library for interacting with the Docker Remote API (github.com/apocas/dockerode), making things easier
 - Will be merging some shell streaming code with my branch, so that hopefully I'll have a shared terminal feature working by Thursday (11/20)

Dan Smith

- Working on integration of shell streaming into client-side webpage
 - Need to merge in ace_tabs branch since master is out of date
- Messing with term.js to see how breakable it is

Kyle Tietz

- Combined the pieces of collaboration demo and ran it on laptop for demonstration
- Pushed current demo to ace_tabs branch, will need to push to master

Jacob Wallraff

- Worked with Erich and Kyle on getting a single demo put together for our Thursday advisor meeting

- Did research and started framework for creating resizable coding areas on main application page

Erich Kuerschner

- Worked with Kyle, Jacob and Bryan to create a single demo that showed off shareJS, file management and tabbed features.
- Other than that I haven't been able to put much other work in due to being out of town
- I will continue with the work items I started last week (see below)

Bryan Passini

- Worked with Kyle, Jacob and Erich to create a single demo that included all of our features.
- Added the ability to save a file to the prototype
 - File saves in a location passed to the server. Right now, the default is the same folder the server was started from.
 - Added this to the sharejs 0.7 prototype, but I can add it to the 0.6 if we go that route.
 - Used NodeJs's fs module to add this functionality.

Pending Issues

- Shell streaming / Filesystem Concerns:
 - Do we need to allow for users to spawn their own shells within the classroom container?
 - Do we need to have a concept of "syncing" the ShareJS documents onto the filesystem?
 - Without this, what if user Bob is typing a line of code while Joe initiates our build/run/compile? There could be error-containing code if a line is not finished.
 - With enough users, e.g. a whole entire classroom, it may be inconvenient for someone to try and run their code and expect others to not be typing.

- Proposed solution: A “sync files to server” functionality, or similar, along with allowing users to spawn their own shells
- Demo
 - The demo still doesn't look very pretty
 - Trying to use techniques that will be easy for a beginning programmer to pick up on - intuitive website design
- ShareJS 0.6 vs 0.7
 - Several cool features in 0.7, such as
 - Querying for open documents
 - Unsubscribing from documents
 - However, some things would be lost from 0.6
 - Out-of-the-box ShareJS integration with Ace editor
 - Currently we are using 0.6 for the working demo

Plans for Upcoming Week

- **Everyone**
 - Finish project plan version 2
- Jake Bertram
 - Docker container management still needs work:
 - Implement ability for a user to connect to an existing container
 - Stretch goal: get shell streaming as well, from Dan's branch
 - feature/websocket branch, under dir server/
- Dan Smith
 - Integrate shell streaming into client webpage
 - Add shell connection info API to web server
 - Stretch: integrate with Jake's room manager to retrieve actual connection info
 - Need to figure out how broken term.js is and what we can do about it
 - Stretch: Install Atlassian tools?
 - Super stretch: work on cursor handling with ShareJS and Ace editor
- Jacob Wallraff

- Will improve layout and general GUI flow and appearance for front-facing site
- Kyle Tietz
 - Push collaboration demo changes to master branch
 - Improve simple user 'login' by moving to server side and working with authentication
- Erich Kuerschner
 - Allow for tabs to be closed in the shareJS demo project.
 - Look into persisting tabs across a page refresh
 - Look into getting text from shareJS document (v 0.6)
- Bryan Passini
 - When a user saves a file to the server all users file managers views will automatically refresh with the new file.
 - Look into integrating an ace editor with the latest version of sharejs.