Team Number: May15-31
Project Name: CoderLab
Client / Advisor: Joe Zambreno
Due: 9/22/2014

Week 3 Report (9/16/14 - 9/22/14)

Name (Role)	Team Meeting (9/22)	Advisor Meeting (9/18)	Week Hours	Total Hours
Jake Bertram (Comm)	P	P	2.5	10
Dan Smith (Key Concepts)	P	P	1.5	9.5
Kyle Tietz (Lead)	P	P	2	8
Jacob Wallraff (Webmaster)	P	P	3	8
Erich Kuerschner (Webmaster)	AE	P	4	8.5
Bryan Passini (Comm)	P	P	3	10.5

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

Advisor Meeting Notes (9/18)

- Standards for a successful project
    - Able to perform primary use case (refer to last weeks weekly report)
- Placing constraints on the usability is okay
    - TogetherJs would be fine even though it is not very compatible with IE
- Discussed how to get files into a Docker container
    - ssh, scp, ftp?
    - Jake would look further into this
- Security issues
    - Should be aware of possible security risks but assuming containerization will be sufficient is okay

Meeting Minutes (9/22)

- Discussed weekly accomplishments
- ShareJs vs TogetherJs

    - Get hands dirty and experiment with as opposed to just research
- Have a rough project plan outline by this Thursday
- Talk about the website
- Set up a group in GitLab for version control
    - For sharing proof-of-concepts and other small projects
- Need to complete HW1 assignment on BlackBoard

Group Accomplishments

- Website work
- ShareJS/TogetherJS research

Individual Accomplishments

Jacob Bertram

- Docker - Reading into some best practices and seeing what others are doing
    - http://blog.remoteinterview.io/post/89639823776/how-we-used-docker-to-compile-and-run-untrusted-code Looks like some good inspiration, these guys are doing the same thing we want to do with docker. Researching this. Their git repo: https://github.com/remoteinterview/compilebox
        - Basically, they have a docker container that ships with a nodejs web service to accept code from host, compile it, run it, pipe results to the front-end.
- ShareJS vs TogetherJS for collaborative editing
    - TogetherJS might be a bit too heavy, it's focus seems to be on making an entire webpage collaborative, full of features liked syncing mouse clicks / multiple mice, integrated chat, etc.
    - ShareJS, however, simply has support for Operational Transformations as well as integrating this into textareas, or even CodeMirror components (via another library by the author of ShareJS)
    - http://sharejs.org/ , https://github.com/share/share-codemirror
- SSO - Talking with ITS via email about possibilities
    - Might meet with Mike from ITS in the future
- Want to use gitlab? A couple instances on campus:
    - https://git.ece.iastate.edu for ECE (outdated)
    - https://git.websig.iastate.edu for websig / maybe general ISU

Dan Smith

- Nothing of note

Kyle Tietz

- Did not look at much; getting ready for career fair

Jacob Wallraff

- Completed initial draft of senior design project Website
- Decided on Weebly but also considered MVC solutions, decided extra time investment wasn't worth it
- Will make more changes this week to make website more useful
- http://www.may15-31.weebly.com/
- This week: write outline of project plan for Thursday

Erich Kuerschner

- Reached out to ITS and CSG about single-sign on. Both responses directed me to the following: http://tech.its.iastate.edu/pubcookie/
    - In a following email, the IT consultant mentioned the following:

      "*One more thing. The university will be moving to Shibboleth, though it isn't officially supported yet. For pub cookie or Shibboleth to work you will need a valid ssl cert for your domain.*

      Within the college of Engineering I believe John Dickerson would be a good contact. At the very least He may be able to point you to a more appropriate person in the college to help. http://www.engineering.iastate.edu/directory/?user_page=jedicker "
- Started the website with Jacob. A little progress was made but there is still some work to do. We can start uploading our reports to the site (ask Jacob for a demo maybe)
- Finally read up on docker and have a much better feel for what it could offer for the project; did the online tutorial.
- Read up on java concepts (compiler and JVM) that we will need to get running at some point for the project.
    - Will we have a separate docker container for the JVM? And while we're on the subject, will we want to have a container for each programming language we support??
- Looked into NodeJS mostly out of curiosity but it looks like it may actually be something we may want to consider for our back-end. It seemed VERY lightweight but also very powerful in what you can accomplish with only a few lines of code. What do you all think?

Bryan Passini

- Looked into TogetherJs vs ShareJs so if we go this route, instead of FirePad, I have an idea of which one I might like better
    - ShareJs seems me like it might have a steep learning curve, whereas TogetherJs seems a little simpler to learn. Every article that I read said TogetherJs was super simple. But, I think both would involve some experimenting and learning.
    - Operational Transforms seem like an elegant way to handle collaboration (ShareJs). OT will definitely work for this project.
    - I like that TogetherJs also supports OT, because I do not think the message passing of TogetherJS alone will suit our needs.
    - Goal for next week: if we have not selected a technology, I would like to download each and play around with them. This will be the way of deciding which one I like better.

Pending Issues

- We need to formalize details for our project in order to complete project plan
- Decide technologies to begin experimenting / coding
    - Clone various code-collab things like togetherjs, sharejs, firepad, and get a feel for them
- Secure a server or VM to host our site

Plans for Upcoming Week

- Begin our 1st version of the project plan
- Get started with GitLab as a beginning for source control
    - For sharing proof-of-concepts, etc.
- Add content to website