CS1530 SPRINT-2 DELIVERABLE

Project: Webfreesurfer
Group: Open Science Grid - 2

Due Date: **13 OCTOBER 2015**

Group Member	**Role**
WIlliam McKibbin	Project Manager
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Robert Colleran	Developer
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Sprint Description

Asynchronous development

During this sprint the team was able to tackle several aspects of the site despite communication and commitment problems. Our team did not improve as much as we wanted to in terms of planning, collaboration, and tasking. This was largely in part due to lack of communication. Many members of our team work part time and have multiple group projects. Our efforts next sprint will be to focus heavily on making our software as modular as possible and utilizing git SCM to divide, conquer, and merge the different pieces together. This should allow members to work more asynchronously than the centralized development that has occurred up until now.

Scrum Time

Our group has been relying on meeting after class tuesdays and thursdays but unfortunately not everyone is able to make it to class every lecture. This has caused a knowledge gap within the team and has affected the situational awareness of some members. To accomplish better communication, our team is going to rely more on scheduled scrum time on our slack channel rather than class time. This is sub-optimal but provides one of the only viable solutions for communicating regularly.

Customer Interactions

Our team did not need to talk to the customer much this sprint as most of our work is already laid out before us. We will be showing them our progress early on next sprint and getting feedback on what we have so far. In addition we will need to communicate with the customer more as we begin interfacing with their software and database. For the time being we have been using an amazon RDS database with setup with the schema the customer provided. Migrating to their system should be trivial.

Technical Difficulties

The team is having some trouble learning to use the JSF framework that we are building the site on top of. This limited some of our teams contributions during this sprint as there was a barrier between the more experienced JSF developers. For this reason some of the feature code may reside in local branches for this sprint and stay separate from master until next the next sprint.

In addition we had several issues when adding new dependencies to the project. Each member of the team had to download and configure new libraries and jars into their environment. This left a lot of room for versioning errors and misconfigurations. To remedy this we added project dependencies into the repo.

Overall

Overall, our performance was below the goals we set at the beginning of the sprint. With the changes in procedure and communication described above we plan to have a much more productive and streamlined sprint.

User Story Progress: https://github.com/wmckibbin/webfreesurfer

In terms of core functionality the team was able to complete most of the user creation and management system, as well as a basic user interface. However, in terms of user stories, only one was fully completed:

> 1a. As an **administrator**, I want the users to be stored in a Postgre SQL database with a schema of my choosing so users can be authenticated with and can have additional information stored about them.

Work on user stories 1b and 1c is nearly completed and will be included in the next sprint.

> 1b. As an **administrator**, I want to be able to access and modify account information of users within the site so I can support and audit the users of the site.
>
> 1c. As a **user,** I want to be able create an account on the website, and modify my information after my account is created so I can keep my account up to date and secure.

Work was done on these user stories first because they form the core of the project that everything else is built off of. In our backlog they are of the highest priority under the larger user story 1:

> 1. As a **user**, I want to be able to log into the website so my freesurfer job data and records are secure.

Once the first priority user stories are out of the way, work can begin on the other half of the project:

> 2. As a **user**, I want submit brain scan data to a website so I can have the data be processed via a freesurfer workflow on the Open Science Grid

Defects

Password Hashing

Passwords for the website are stored as a cryptographic hash. The hash create from two parts, a sha256 hash of the account creation time called salt, and a sha256 hash of the the password text. These two components are hash together using pbkdf2. During testing we were having issues recreating the original hash from a matching password. Turnout that the database was returning padding which was corrupting the password attempt character array Password salt returned padding that was corrupting the attempt hash. This was detected by UI testing and confirmed as a defect through debugging.

Development environment

Our development environment/site is relies on several external jar files to run the core framework and development tools. This proved to be a nuisance when it came to collaborating as people's development environments differed at times. This caused problems with testing locally on several machines. In order to prevent configuration errors in the future dependencies are going to be included in the git repo to avoid confusion in the future and prevent user specific configuration from entering the repository.