Automating PLORAS - March 24, 2016
Bi-Weekly Report 10

Team 32

Daniel Blackwell Farbas Miah Jedrzej Stuczynski

Contents

1 Overview of last two weeks

During this bi weekly period, we have made a lot of progress on multiple features. For the front end, minor tweaks and adjustments have been made to improve the user's and future maintainer's experience. For the team website we have began to write a manual for our application which we are constantly improving. The MATLAB scripts have also been implemented with the front end which means scans uploaded are able to be processed by the server with a queue system in place.

2 Summary of meetings

2.1 Meeting 1: 15/03/16

For this meeting we discussed how we would go about accessing and altering data from the database. We contacted the PLORAS team's database handler to give us more detailed informations regarding this job. We also allocated some tasks to be completed by the next week, including clean up of the front end and some integration with the back end.

2.2 Meeting 2: 18/03/16

This meeting was held to discuss issues regarding the outputting of data onto an xls file on Linux. We couldn't use any Microsoft tools for this job due the no availability on Linux. Instead, it was decided to use a third party for this task whilst ultimately switching to the csv file format.

2.3 Meeting 3: 22/03/16

During this meeting we worked on some tasks that were difficult to implement such as the set up of the Django application onto the Apache server and the change password feature. Tasks were also allocated to group members to ensure we stayed on track for all aspects of the project.

3 Tasks completed

The MATLAB processing scripts has finally been integrated with the Django front end. Once patients scans are uploaded and validated, they are put into the processing queue. They are handled in a first in, first out basis. The whole processing is set to run as separate to the website process so that if

for some reason the website goes down, the backlog of patients can still be processed.
Moreover, further work on the virtual machine has been done. The processing scripts have been tested to work on it and currently we are working on connecting our Django front end with the Apache server set up there, which should be done relatively soon. After that, all functional features should be implemented.
For the front end, improvements have been made on our current code and some minor features have been added. The code has been cleaned up with redundant files removed. Some changes have been made to the scan upload form based on the clients' feedback. The design of the application has also changed to make it more visually appealing whilst still adhering to the theme of the PLORAS website. A manual has been set up for the application with constant additions being made which have been added to the team website.

4 Problems that need to be resolved

An issue that we have had is on how to set a minimum character amount for the change password feature on the Django application. Although, the feature is working, we are unable to reject passwords which are not up to the required standards. It is expected that this feature shall be implemented within the next few days.

5 Plan for next two weeks

Over the next two weeks we plan to have almost completed our application. This would mean that the front end is completely integrated to the back end so that scans can be uploaded and data can be sent back to the user. We also expect to complete the manual for our application.

6 Individual tasks completed

6.1 Daniel Blackwell

During the most recent period, I have been working on the lookup table further, I am in the process of arranging the correct level of access to allow us to build the lookup table form the PLORAS Microsoft SQL database; this has involved dealing with Andre Selmer from Bytewisesoftware who run the system for PLORAS. I have also been liaising with Jedrzej in outputting the

scan results in the correct format to be used when producing a SQL query, for this reason we have chosen to go for a CSV file format.

6.2 Jedrzej Stuczynski

Those two weeks have been rather busy. Having established reliable access to the virtual machine, we have tried to set everything there to meet the required specifications. I have slightly modified the scripts I have written before to be compatible with this platform. Moreover, I have created a job queue for all the incoming processes. When a new set of scans is uploaded, they are put into a new database table from which they are pulled by a python script managing the queue. Then it is forwarded to the MATLAB processing and when the results are generated, the entry is removed from the database. If it happened that the machine would crash in the middle of the script running, it should be able to recover, as currently the scripts are set in such a way that it checks if given steps were already done and continues from the first unfinished one.

6.3 Farbas Miah

For the last two weeks, I have been working on the front end and also the website. For the front end, I have been cleaning everything up and making minor adjustments. Some changes have been made for the data required in the upload form. The code has also been improved in such a way that it is well formatted and contains explanatory comments as needed. The web application design has also been improved so that it is more visually appealing and easier to navigate. I have also made it so only 20 scan patients can be viewed at a time in the review page with access to more by clicking on the next page button. These are now sorted in newest to oldest for ease of navigation. For the website, I have been adding additional content as we complete more tasks and the have started writing a manual for the application.