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Group 1

Authentication and Integration

Project progress report

COS 301

2014

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## Group 2 – Web Services

Person in Charge: Zenadia Groenewald

### What have we done?

At present, web services is running and operating through Django, as specified. Communication with the business logic is successful and web services is now able to exchange information between themselves and the business logic, through the use of the API created by the team responsible for the business logic. Web services is now able to successfully provide all its required services to Android, however there are still issues regarding the login/logout functionality; communication with Android has been modified to allow the web services to receive GET requests from Android as instead of POST requests.

### What still needs to be done?

Finalising the login and logout functions to work as expected using session cookies as well as to test all implemented functions/services against real, valid data existing in the database instead of mock or dummy data. It would also be prudent to, if possible, address the problems encountered with POST requests.

### Issues and challenges encountered

Miscommunication among the group members as well as with the other groups; this lead to confusion amongst the groups involved and resulted in a large setback in the time taken to complete the task, mostly due to confusion about what was actually required from by the other groups from web services. This included being informed by other groups that web-services would provide an interface to all front-end modules and not only the Android module, as originally specified; this was then clarified later on. It was clarified that web services need only interact directly with the Android application and the business logic. Ensuring adequate and significant contribution from every member in the group also proved to be problematic. Consistent contact between all group members was difficult if not impossible in some instances and, as such, many group members did not even partake in the work or attend meetings.

## Group 3 – LDAP Integration

Person in Charge: Michael Johnston

### What have we done?

Everything that was required has been completed. APIs for the LDAP services are specified, and data is extracted from LDAP itself. The module provides its API to the business logic module.

### What still needs to be done?

More unit testing.

### Issues and challenges encountered

The team needed time to learn Python and Django, as well as how to integrate them. They also needed to understand how the Department of Computer Science’s LDAP server works. The group also found it difficult to communicate effectively with the groups that they depend on and that depend on them. It was also a bit of an issue to get all the members together, so they could work as a whole group. However, everyone did their part in the end.

## Group 4 – Business Logic

Person in Charge: Mathys Ellis

### What have we done?

Business logic has implemented a working mysql database to represent the assessments, leaf assessments, modules, sessions, marker allocations and mark allocations. This database is now fully integrated with the LDAP database which together creates a database mapped by Django’s object relational mapper. Business logic together with integration team has managed to get sessions working so that user sessions can be tracked by the server. The team has also implemented the functions requested by the other teams and have debugged the majority of them. As far as integration is concerned most of the API is fully integrated with reporting and Imports and exports as well as web services except for the few new functions.

### What still needs to be done?

With regard to the database it only needs a small new table for some of the aggregation functions to function properly so that business logic can be fully integrated. There are still one or two API function calls that need to be implemented that the other teams made aware only of late and some final aggregation functions. Also some of the API still needs to be fully debugged.

### Issues and challenges encountered

Understanding the framework and how it functioned with regards to the MySQL databases and how to implement the required database was a big issue for the Business Logic team. Setting up the sessions was an equivalently difficult issue. The Integration team had to help the Business Logic team understand some critical flaws in their database design so that they could fix it. Also getting all the groups to specify the API functions they needed was a challenge as this changed constantly but after while the request became more cohesive as the API was developed and implemented. Some groups also seem to misunderstand the role of business logic and attempted to give their functions as those provided by the API. The business logic team in overall performed well but did at times create difficulties for management due to frustration and sleep deprivation but these issues were dealt with accordingly.

## Group 5 – Reporting

Person in Charge: Dieter Doman

### What have we done?

The reporting team is able to generate PDF and CSV files and report objects that data importing and exporting can use to generate HTML pages.

### What still needs to be done?

The reporting module still needs to be fully integrated with the business logic module. Extensive testing also needs to be performed.

### Issues and challenges encountered

There were problems with some of the team members – they contributed nothing towards the group, even though there were plenty of opportunities to do so. They were fired as a result of this.

## Group 6 – Android Application

Person in Charge: Melany Barnes; Cornelius van Rooyen

### What have we done?

By Friday 11 April Android App had a lot of different Apps that they demoed instead of just one App. We managed the Android team by asking them to come to campus on Saturday 12 April. They were not happy with this decision, but 3 of the 8 members pitched. These members started from scratch and created a base project which all of their members could get from git to add functionality to. We then told Android App that their deadline is Monday night at 12pm to which the group agreed to. Android App held their part of the deal by providing us with a 90% functioning app. We got android to keep working on improving their app. They did make a lot of improvement.

### What still needs to be done?

We need to get Android to fully integrate with Web services and properly handle cookies. The communication between Android App and Web Services still need work. With the communication we mean the way that json objects are sent from the Android App to Web Services and vice versa.

### Issues and challenges encountered

We found it very hard to get Android App to understand that demoing a lot of different apps does not mean that they have a great app that is integrate able. Since they did not have an app that can possibly be integrated we had to get them to start working on the app earlier than the other groups. We had a hard time getting the Android App group to come to campus on a Saturday afternoon. Some of the group members became very defensive and refused, without a solid reason, to come to campus. The 3 members who did attend that Saturday afternoon took 4 hours to get a working base that they could share with the rest of their group. This was very frustrating because something that they had to have for the previous demo was not done and now wasted 4 hours. Some of the Android App members refused to start working before Monday morning, which made our group sceptical that they would be 90% done by Monday night. The Android App group worked very hard on Monday and surprised us with the amount of work that they got done by working together as a group. We asked Android App to please come early Thursday morning (17 April). After nagging them and explaining to them that we need them to be there early so that we have time to fix integration problems between Android App and Web Services, their members only started pitching at 11:30 which was only 4 hours before our deadline. It was not enough time for Android App to get cookie sessions working on their side and to fix the communication problem between them and Web Services.

## Group 7 – Web Application

Person in Charge: Gerard Lamusse

### What have we done?

[text]

### What still needs to be done?

[text]

### Issues and challenges encountered

[text]

## Group 8 – Data Importing and Exporting

Person in Charge: Zane Bloom

### What have we done?

The team has a functioning import and web rendering module. The import module has been integrated with the business logic module, while the web rendering module has been integrated with the reporting module.

The import module receives a csv file, checks if the correct data is present in the file as well as in the database then saves the assessment entries to the database through the business logic module.

The web rendering module uses the reporting module to generate a report object, it then renders the report object to HTML.

The web rendering and import modules API’s have given to the Web Application team.

### What still needs to be done?

The importing module still requires more unit tests and refactoring. Also, both importing and exporting require integration testing.

### Issues and challenges encountered

There were issues with some group members that weren’t working and they were subsequently fired. Also, communication between groups and requests for API’s was challenging. It was also difficult to keep the team motivated, focused and cohesive.