ECSE 321 - Intro to Software Engineering
Deliverable 6 Report

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1. Implementation
All the requirements formally identified by an ID are references to the Deliverable 1.

- **Functional:** Total implementation of the R. 1.1.1.1 to 1.1.1.4 with the caveat of serialization to text file instead of an xml format for the Web platform. This was a design choice made during the 2nd deliverable to use the same persistence methodology seen in Event Registration. R. 1.1.1.5 was not accomplished, a database was voted as too much of a frame for the access and retrieval of data. A much lightweight approach of storage in text files was preferred. R 1.1.1.6 is partially accomplished. Mobile and Desktop are fully capable of using each others xml outputs. Web remained incompatible due to its plain text output serialization.

- **Non-Functional:** From section R. 1.2.1 only R 1.2.1.3 will ship with the final report. All other requirements in this section were dropped from development as they related to an extra scheduling algorithm design the team lacked time to develop from section R. 1.2.2 all platforms provide a secure authentication procedure linked to a profile. The only requirement not achieved was 1.2.2.6 as NTRU cryptosystems required more research on our part to be able to implement from section 1.2.3 all requirements were achieved, providing a reliable cross platform version of the product was one of the main goals of the team from section 1.2.4 all applications work under the same colour pallet, but as a caveat Mobile is the only platform without light/dark theme mode. It was chosen to rely on androids native accessibility options to change color gradients on the cellphone.

- **Desktop:** From section R 1.1.2 all but 1.1.2.9 was accomplished. As demanded by the client, the Desktop application is fully able to perform the tasks of an Instructor, Department and Student Profile which can be found in more depth in the Mobile and Web section of this report.

- **Web:** The web service is capable of dual profile actions. An administrator can log in and create courses instances and instructor profiles as well as linking them. An instructor can log in and publish job postings and manage the received applications as well as evaluating TAs.

- **Mobile:** The shipped application provides the whole capability of appying for job, Accepting/Rejecting an offer Creating and Modifying the users student profile

2. Usability of Application

- **Desktop:** The desktop program shall be run by double clicking on the .jar file of the program. The output directory gets initialized in the same directory as the .jar file is located in. All saved data (persistence data) is stored in this output folder. No installation is necessary with the use of the .jar file. Full deletion requires the deletion of the output folder and the .jar file, and if the user has forked the repository, the user would need to delete the local repository as well.

- **Web:** The Web application is accessed through the web and doesn't host any permanent or temporary files client-side. The user is required to access the server that hosts the website.

- **Mobile:** The mobile program shall be released as an apk file that may be installed on an Android phone. Once the apk file is installed, the user may use the application on the phone.

3. Testing of Applications

- **Unit Testing:**

- **Integration Testing:**

- **System Testing:**

4. Release Pipeline

The release pipeline shall follow the plan as in deliverable 4's report. Every release shall follow semantic versioning: MAJOR.MINOR.PATCH. With the first release being V1.0.0. During deployment, the Travis script shall invoke the scripts: ant export-desktop, ant export-web, and ant export-mobile. These shall export the necessary jar, apk, and web files.

- **Desktop:** The Executable Desktop JAR archive shall be released. The APP/Desktop directory shall be released as a repository.
- **Web:** The Web Application zip archive shall be released. The APP/Web directory shall be released as a repository.
- **Mobile:** The apk file of the android program shall be released. The APP/Mobile directory shall be released as a repository.

It is interesting to note that a good part of the release pipeline time budget was allocated for the build script. Apart from the base functionalities it is also capable of packaging the web app, start the xampp server and open a browser with the address of the web service.Install the mobile app automatically to a connected android device

5. Responsibilities for Each Phase

- **Harley Wiltzer:**
- **Camilo Garcia:**
- **Jacob Shnaidman:(420+h)**
- **Robert Attard:**
- **Matthew Lesko: (40+h)**