sdmay19-23: Mobile, Biometric Bitlocker
Week 9 Report
October 29 - November 5

Client/Advisor: Dr. Akhilesh Tyagi and Timothy Dee

Team Members
Ammar Khan — *Product Owner*
Cole Alward — *Storyboard Master*
Larisa Andrews-Thys — *Scrum Master*
Yousef Al Absi — *DevOps Engineer*
Morgan Anderson — *Scribe*
Justin Kuhn — *Testing Engineer*

Summary of Progress this Report
This week we talked to our client/advisor about issues found within the PUF library. From this conversation, we received another document containing potential solutions and various ways to approach those solutions. We also created an application in our main repository that uses the PUF to go into a library.

Pending Issues
Issue 9 - Change Number of Max Profiles to 10 (Only merge request needed)
Assigned to: Larisa Andrews-Thys

Issue 19 - Making restrictions for repository (Admin privileges needed)
Assigned to: Morgan Anderson

Issue 20 - Include Mockito for individual unit tests
Assigned to: Justin Kuhn

Issue 23 - Change number of evaluation points to 32
Assigned to: Cole Alward, Larisa Andrews-Thys

Issue 24 - Change normalization algorithm
Assigned to: Ammar Khan

Issue 25 - Change authentication algorithm
Assigned to: Ammar Khan

Plans for Upcoming Reporting Period
Issue 27 - Changing Challenge Generation Method
Assigned to: Larisa Andrews-Thys

Issue 28 - DevOps for PUF
Assigned to: Yousef Al Asbi

Issue 29 - DevOps for Application
Assigned to: Yousef Al Asbi

Issue 30 - Re-write Python scripts for authentication
Assigned to: Ammar Khan

Issue 31 - Create temporary files to encrypt
Assigned to: Cole Alward

Issue 32 - Locate and test PUF key generation methods
Assigned to: Morgan Anderson

Issue 34 - Map out test functionality
Assigned to: Justin Kuhn

Issue 35 - Make script for putting repository in weekly report
Assigned to: Larisa Andrews-Thys

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Ammar Khan	I attempted to fix the issues with the PUF authentication that I discovered last week, but I was unable to do so. I met with Timothy Dee, the PhD student who worked on the PUF before us, to try to pinpoint the cause and potential solution of all our issues. I was able to identify that the issues were primarily being caused by Python scripts that were being used in the library; however, I was unable to find a solution. After looking through the application for several hours with Tim, he stated that there were many issues that he did not know how to fix and stated that it would be best to rewrite all of the Python scripts in the library into Java code. He stated that this was something that needed to be done anyways even if the application worked. I began to look at the scripts that need to be rewritten to understand what they do, but I have not yet begun rewriting them. As usual, I also scheduled the weekly meeting with the client.	8	52
Cole Alward	I got the Gestures application running on my machine's emulator. I pulled Morgan's merge request to review and test, and I ran into issues when creating a profile and	6	42

	authenticating. I created a branch to change the number of evaluation points and started testing.		
Larisa Andrews-Thys	Reviewed notes from advisor on problems with the PUF. Made notes for myself on how to go about solving the problem. Updated tickets in GitLab with needed comments. Reviewed pull requests.	8	58
Yousef Al Absi	Started creating the JAR creation DevOps for our PUF library, but found out I need a domain to set up Auto DevOps with Gitlab. Consequentially, I'm working on the DNS and the setup required for a domain.	7	45
Morgan Anderson	Reviewed and investigated issues mentioned on the pull request concerning the updated Gestures application (e.g., problems with drawing shapes and authentication). Additionally, I did some more research on setting branch and repository restrictions on our team's GitLab to avoid misunderstandings in the future.	6	50
Justin Kuhn	Imported existing repository and tested existing functionality on my machine. Included the Mockito framework into the gradle build dependencies of the PUF library to be utilized for mocking and stubbing components in unit and integration tests. Created sample unit test to show Mockito framework is accessible and functional within the project. Reviewed pull and merge requests for the team.	7	46

Gitlab Activity Summary

Nothing to report.