

sdmay19-23: Mobile, Biometric Bitlocker

Week 10 Report

April 1 - April 8

Team Members

Larisa Thys — *Scrum Master*

Morgan Anderson — *Scribe*

Cole Alward — *Storyboard Master*

Yousef Al Absi — *DevOps Engineering*

Ammar Khan — *Product Owner*

Justin Kuhn — *Test Engineer*

Summary of Progress this Report

Continued to test our application and fix existing issues.

Pending Issues

Issue 52 - Making PUF a lock-screen

Assigned to: Larisa Thys

Issue 51 - Deciphering Bin Files

Assigned to: Ammar Khan

Issue 48 - Integrate Encryption with Application

Assigned to: Cole Alward

Issue 45 - Making key from Quantize data

Assigned to: Morgan Anderson

Issue 43 - Re-write Util.py to Java for authentication

Assigned to: Justin Kuhn

Plans for Upcoming Reporting Period

Issue 59 - Begin putting together poster for PUF

Assigned to: Morgan Anderson

Issue 58 - Put Together Tim's Issues and Fixes for Website

Assigned to: Morgan Anderson

Issue 57 - BUG: Time Vectors are Zero

Assigned to: Larisa Thys

Issue 56 - Try different authentication predicates

Assigned to: Cole Alward

Issue 55 - BUG: Failed_Points is All Points

Assigned to: Ammar Khan

Issue 54 - BUG: Fix inconsistent key generation upon authentication

Assigned to: Morgan Anderson

Issue 53 - Modify Authenticate class to use PUF library response on authentication

Assigned to: Morgan Anderson

Issue 50 - Test re-written Util files

Assigned to: Justin Kuhn

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Larisa Thys	Worked on trying to see if converting our application to the lock screen was feasible. Android had a way to do it quickly in Android 8 (which is very old at this point as we are at 28) I was hoping that this was be in later versions and applicable to us. It does not seem feasible.	10	128.5
Morgan Anderson	Continued investigation of inconsistent BitSet generation and, subsequently, key generation on authentication. To help mitigate this issue so the team can progress, I provided a "permanent" key for all users to use for authentication to be used in encryption and decryption. Additionally, I began revising and proofreading the design document to prepare for the final version submission.	9	108.5
Cole Alward	Integrated authentication and encryption so the AES key uses the key from the authentication class. Updated with master and fixed merge conflicts.	5	123
Yousef Al Absi	Replaced the 4 32 bit integers with a BigInteger to generate the proper key and make it consistent. I also worked on the encryption/decryption of files with Cole. Looked at some merge requests.	5	100
Ammar Khan	Found a tool that enabled us to step through	9	119

	the Gestures Library for testing. Found several issues such as the fact that the failed points calculations are incorrect in the sense that all the points always fail. Stepped through the application to try and figure out why this was the case/what was causing this issue to occur.		
Justin Kuhn	Stepped through the rewritten test util scripts using a library debugger to investigate the point of failure in the library. Discovered the point of failure with values to confirm user input was not calculated correctly. Researched possible solutions to solving the issues.	7	103

Gitlab Activity Summary

Sdmay19_23 Repository:

Created New Branch

Made At: 2019-04-06T20:00:14.273Z Author: mandrsn Branch Name: MBB-53

Pushes:

Pushed At: 2019-04-06T20:59:12.251Z Author: calward To Branch: MBB-33 Commit Message: Merge branch 'master' into MBB-33

Pushed At: 2019-04-06T20:28:04.883Z Author: mandrsn To Branch: master Commit Message: Merge branch 'MBB-45' into 'master'

Pushed At: 2019-04-06T20:19:13.476Z Author: mandrsn To Branch: MBB-45 Commit Message: Branch was complaining about these. Let me know if these should be ...

Pushed At: 2019-04-06T20:12:41.320Z Author: mandrsn To Branch: MBB-45 Commit Message: Moved the key generation code to its own method

Pushed At: 2019-04-06T19:17:23.142Z Author: calward To Branch: MBB-33 Commit Message: changed error messaging, rm'd reset and error

Pushed At: 2019-04-06T18:45:35.588Z Author: mandrsn To Branch: MBB-45 Commit Message: Overwrote (hardcoded) key for encryption/decryption testing purpose...

Pushed At: 2019-04-06T18:06:52.511Z Author: mandrsn To Branch: MBB-45 Commit Message: Reduced conversion code by using BigInteger

Pushed At: 2019-04-06T18:05:26.534Z Author: calward To Branch: MBB-33 Commit Message: added javadoc

Opened Merge Request:

Made At: 2019-04-08T23:00:43.174Z Author: mandrsn Description: Begin putting together poster for PUF

Made At: 2019-04-08T22:54:32.550Z Author: lmandrew Description: Put Together Tim's Issues and Fixes for Website

Made At: 2019-04-08T22:45:10.994Z Author: lmandrew Description: BUG: Time Vectors are Zero

Made At: 2019-04-08T22:43:28.418Z Author: lmandrew Description: Try different authentication predicates

Made At: 2019-04-08T22:38:54.621Z Author: lmandrew Description: BUG: Failed_Points is All Points

Made At: 2019-04-08T22:31:21.785Z Author: mandrsn Description: BUG: Fix inconsistent key generation upon authentication

Made At: 2019-04-06T18:49:18.766Z Author: mandrsn Description: Modify Authenticate class to use PUF library response on authentication

Accepted Merge Request:

Made At: 2019-04-06T20:28:04.794Z Author: mandrsn Description: MBB-45-Making-key-from-Quantize-data

Closed Merge Request:**Comments:**

Made At: 2019-04-08T23:02:40.876Z Author: lmandrew Commented On: Issue Comment: Making a "TO-DO" video

Made At: 2019-04-06T18:47:04.023Z Author: mandrsn Commented On: Issue Comment: Overwrote (hardcoded) the current key for testing encryption/decryption. ****Will need to be removed later**!**

PUF Repository:**Pushes:**

Pushed At: 2019-04-06T18:52:30.481Z Author: jrkuhn To Branch: MBB-30 Commit Message: repush

Pushed At: 2019-04-06T17:17:02.813Z Author: jrkuhn To Branch: MBB-30 Commit Message: modified to N_5
