# Iteration 3 Report - Mobile Device Authentication

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# General Overview

This document is a summary review of our third and final iteration.

# End of iteration Functionality

The following stories and sub-tasks were successfully implemented during the third iteration.

## Stories

### Story # 4 – 2 points

*“As a phone user, I expect the phone to successfully compare my taping pattern to my acceptable pattern, so that I can ensure that my device can know that it is me.”* Wasn’t completed in time during the second iteration, was completed this iteration.

### Story # 6– 8 points

*“As a developer, I need the phone to record tapped in data that the user inputs, so that I can ensure that data is valid and working.”*

### Story # 7 – 5 points

*“As a developer, I need to ensure that the phone doesn’t record tapped data indefinitely, so that I can ensure memory is not wasted. I need to check against a threshold.”*

### Story # 8– 8 points

*“As a developer, I need the phone application to offload data to be stored onto a PC, so that I can ensure that data is retained for any future purposes.*

## Sub Tasks

1. Add logic to compare future logins with recorded authentication tap sequence in memory.
2. Add code to display results to end-user.
3. Add functionally to record all tapped sequences locally in a file or database.
4. Add code and logic to check the count of history records up against a threshold.
5. Add code and functionality to offload data to a text or Excel file that can be used later on a PC.

## Available End-of-Sprint Functionality

1. The phone is able to successfully compare any login attempt against the acceptable authentication tap sequence.
2. A history of data tap sequences will be available on the device for review.
3. A threshold will be in place to ensure that data for tap sequences isn’t recorded indefinitely.
4. Offloaded data in an Excel file format for review from outside devices such as a PC.

# Changes made to the Stories

Two points remained as Story 4 was carried over into this iteration from the previous one. Those two points were remaining because of defects in the logical comparisons giving erroneous results. Other than this, there was no other changes to the stories.

# Lessons Learned

The two issues with the Story 4 defects were 1) We were performing division using Long value types instead of Float value types, which was causing incorrect results, and 2) we were dividing by zero at times. Once we corrected these, we were confident that the application is now performing comparison logic as expected.

We successfully implemented the remaining stories for this iteration with ease as there was no issues with the work involved and changes required were not too difficult.

# Final Summarization

At the end of this application’s development life cycle, there were no remaining stories in the backlog, as all planned stories have now been implemented. If we were to add any stories to the backlog, they probably would have been smaller stories for making the application more user friendly. We could have added some of the following new stories:

1. More in-depth descriptions or labels to better explain and direct the user to what actions are required and when (i.e. hover tooltips, descriptive labels).
2. An ‘about’ menu with an ‘application content (i.e. version, credits, etc.)’ sub-menu and a ‘help’ sub menu.
3. The ability to print data that is either in memory or stored in Excel.
4. The option to log in also with a standard password for a back-up login option.