Mobile App Development

Final Project | Galanos | Fall 2017

Name(s): Elise Ong and Sreya Mallipeddi

Period: 7

App Title: PassMoo

**Answer the following five prompts in a paragraph each. Please respond to the prompts completely!**

**App Purpose:**

The purpose of this app is to provide users a place to safely store all their passwords so that the only password they would need to remember is the password for the app. Users are able to log in and have their password information organized by website name. Users can see their usernames and passwords when they press a button. Users can also delete stored account information.

**Motivation:**

My (Sreya) mom always forgets her passwords and it leads to a lot of problems as she always has to reset and sometimes loses things. I (Elise) don’t really need to keep track of too many passwords, but after realizing the lack of security that comes with using the same password for every account, I thought a password-storing app would influence me to start using different passwords. We believed this app would be useful as well as feasible to create. It is easy to add features to increase the complexity of the app, so we wanted to start with a sensible project and add on to it rather than start off with a project that we may not be able to finish.

**What is your biggest accomplishment in this project?**

We successfully sent and retrieved data from Firebase, as well as communicated between activities and sent data between activities. We had used Firebase with simpler data structures before during class demos, and at the time it was difficult figuring out how to send and retrieve more complex data structures from Firebase. Eventually, by reading more about how Firebase methods worked, we were able to more fully understand the purposes of the methods and calls we had seen used in class. We also learned how to dynamically create buttons which was something we hadn’t done before and were successful in doing so in our app.

**What was your biggest frustration?**

An issue we faced early on was pushing and pulling to and from GitHub, which was very important since this was a partner project. We faced issues throughout the project with GitHub as our laptops would suddenly not be able to communicate with GitHub and we would have to re-clone, so we had to be careful that we wouldn’t lose files. Another issue we faced was when we tried to make a User object that would hold account information. Initially we had decided to use a HashMap to store User objects, and each User object had an ArrayList of AccountInfo objects. We quickly realized that such a complicated data structure with multiple levels was unnecessary. It was difficult having planned things a certain way and then have them not work at all when we were doing it. Many times we would have to go back to the drawing board and rethink what we were doing. After many revisions of our data structure, we were able to simplify it drastically while still retaining all of the important information we wanted to store.

**Is there anything you didn’t complete that you had hoped to? If this isn’t relevant to you, then please describe what you might include if you were asked to make a version 2.0.**

We wanted to try and dim the screen when a person’s password popped up to keep others from reading it. Instead of doing this however we made a toast pop up with the login information, so that it would disappear after 3.5 seconds. This also keeps others from seeing the information on the screen. If we were to make a version 2.0 we would give an option to reset the PassMoo account password in case someone forgot so that they aren’t locked out from seeing their passwords, add stronger versions of encryption on the usernames and passwords by choosing another type of cipher/encryption method, and have icons/logos for each website.