Project Title: Password Protector
Team Members: Lei Liu, Christopher Gang, Christopher Sickler, Andrew Guilbeau
UT EIDs: ll28379, cg37877, cbs2468, abg926
Repository URL: https://github.com/chrisliu1234/461L-Project

Motivation:

Keeping track of multiple passwords for different accounts can be a hassle. Our application will provide a means for security for all of our users' accounts by keeping a local database of randomly generated passwords. These passwords will be randomized so that it is harder for intruders to gain access to private information. This will also inhibit attackers from gaining access to one password and using it to access other of the users' accounts because many people tend to use the same password for multiple accounts.

Feature Description and Requirements:

If you have a Yahoo account, it is very likely that you had your password compromised in their latest major data breach. If you're like most people, you use one password for multiple accounts, meaning that several of your accounts were compromised. You now have to go through the hassle of resetting the password for every one of those accounts. With our application, this problem doesn't occur. Our app will allow you to create a new password just for your Yahoo account because the same password is not allowed for multiple accounts

Elderly people are often targeted by hackers. With our app's unique and simple design, even the technologically inept can create numerous passwords for all of their accounts. This will dramatically reduce the risk of having all of their accounts hacked, because hackers will need to crack passwords to accounts individually, instead of in batches.
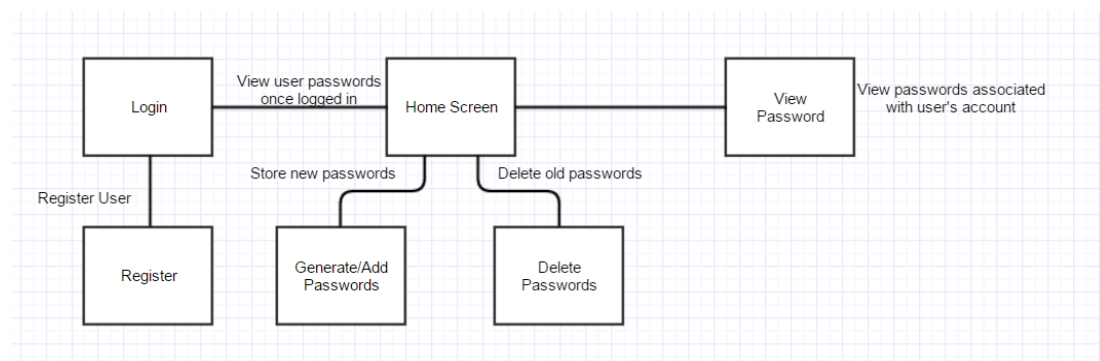
Design Document:
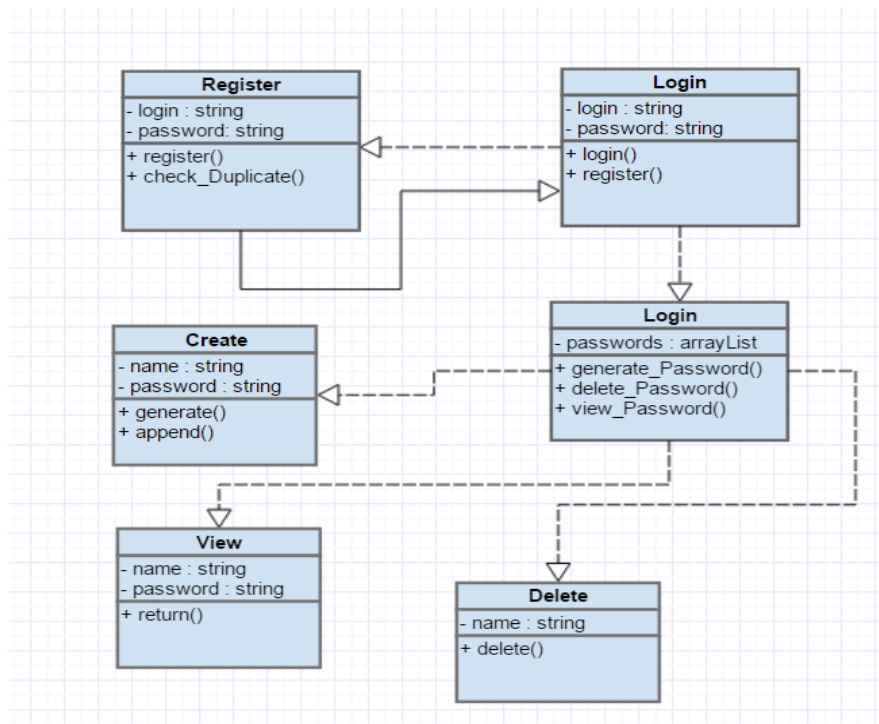

Figure 1: UML State Diagram
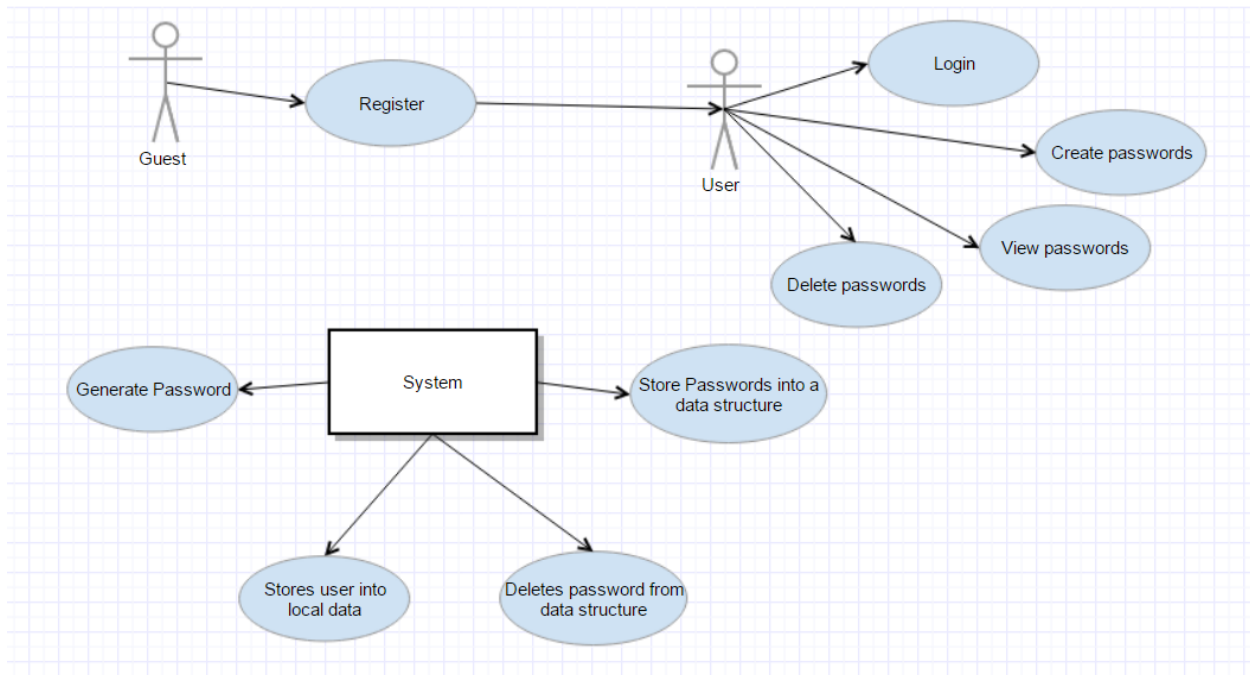
Figure 2: UML Class Diagram
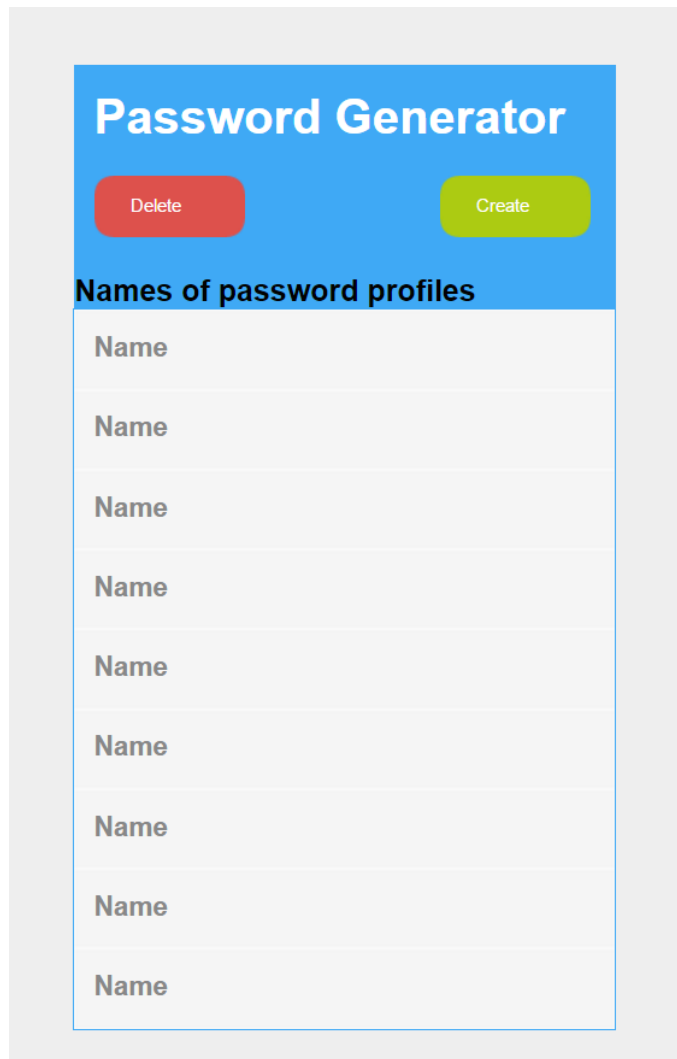
Figure 3: UML Use Case Diagram

Figure 4: User Interface Mockup

For this project, the team will use Android Studio to develop and test this application. Members will test each function of the application. The team must test the application over multiple Android devices to assure consistency across different devices. The main functions of this application include: generating standardized passwords and storing and displaying these passwords to the user.

Useful APIs, Services, and Technologies:
- Android Studio
- Github
- Eclipse / JUnit
- Java packages
- Google Docs
- Slack
- Android Devices

Tentative Timeline

2/23/17: Project presentation
3/27/17: Working prototype
3/30/17: Project presentation
5/1/17: Final product
5/4/17: Project presentation

Feasibility:
One of the problems that may impede our ability to develop the app is lack of experience with Android development. Only one of our members, Lei, has had previous experience with Android development. Otherwise all of our members have experience with Java, which will help us greatly with the development of our application. The number of features we are planning to implement is feasible within our timeline. The features we plan to implement include: a login page, a register requirement, a home screen, the ability to add/remove/update passwords, and a search option to browse and view stored passwords. Furthermore, the actual implementation of each feature seems very manageable to complete.

Contributions:
Team - Presentation and editing
Lei Liu - UML Diagrams, UI mockup
Christopher Gang - Feasibility, Tentative Timeline, Editing
Christopher Sickler - Motivation, Tentative Timeline, Editing
Andrew Guilbeau - Feature Description and Requirements