

Project Part 1: Proposal Submission

Who: Annie Kelly, Tori Augustine, Kara James, Tyler Tafoya

Title: Fireproof

Description:

We are going to design a password manager that solves the inconvenience of having to memorize hundreds of passwords. The user will create one master password that will protect all their other passwords. We are considering adding the additional feature of using multifactor authentication buy using a random number generator synced with your phone that must be entered along with the password. All sensitive data will remain encrypted, and only the passwords being viewed will be decrypted in memory at any time in order to prevent sensitive data loss in the event of a crash.

We are planning on implementing this on an iOS platform, and will most likely be using AES-128 encryption.

Vision Statement: One password to rule them all

Motivation:

Most web services these days require users to create a username and password, and memorizing all of the different passwords for these sites is close to impossible. To avoid this issue, many people use the same username and password combination on multiple services, however this is not recommended. If their information is ever compromised, then an attacker could potentially have access to their bank account, email, social media, and many more important services - hackers know this and will exploit it. We recommend that people use multiple strong passwords for their accounts. However, memorizing many strong passwords can be a challenge - therefore a password manager provides the convenience of only having to memorize one.

Risks:

Most of the members have not worked with each other before, and have no experience with iOS. Additionally, a project like this will probably not be marketable in the future because cybersecurity is a very challenging problem and most password managers release updates several times a year. Finally, implementing something like this would also require the use of SAML which the group lacks experience with.

VCS: GitHub

VCS Link: <https://github.com/shadowfax6894/CS3308>