

Internet and Web Systems-1

PROJECT REPORT - 5
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OCT 30TH 2018

Mile Stone Completed

- Created a user interface using HTML, CSS to input the master password and the site name to generate the output password.
- Designed an encrypted efficient algorithm to make sure that the password is confusing and cannot be backtracked if the algorithm is compromised. Using mod operations and taking some of the ideas from the AES encryption standard which I studied in my Cryptography and Network security course.

Problem Faced

- The aim of making it cross-platform, making it available to every kind of device is kind of challenging yet.
- I still didn't figure out the secure architecture for this one. I planned to host this application on Heroku. If so, then again, we have to trust on Heroku. If it is compromised, then the algorithm behind our stateless password manager is also compromised.
- Cannot handle revocation of exposed password without keeping state. So, this idea will be anyways harming user experience. I am trying more to come up with a more easier user experience way of using the password manager even though my target audience is going to be a Computer Science professional, like a software engineer, system admin who has a little bit knowledge of Linux systems.

References:

1. <https://tonyarcieri.com/4-fatal-flaws-in-deterministic-password-managers>
2. <https://www.techlicious.com/tip/are-password-managers-browser-stored-passwords-safe/>
3. <https://www.pcworld.com/article/3195260/security/password-managers-the-good-the-bad-and-the-ugly.html>
4. <http://techgenix.com/are-password-managers-security/>