

Product Backlog: Sentinel Data Vault

Team 19

Jiho Choi, Zhaoji Jiang, Adam Petty, Dingfun Sun, Thomas Worns

September 11, 2015

PROBLEM STATEMENT

Today, people have countless numbers of device passwords, website logins, credit cards, PINs, licenses, and a wide variety of other hard-to-memorize personal information. Keeping and remembering all of these is an extremely difficult task, especially considering that in order to be safe, each one of these items must be lengthy and complex. Additionally, people often need to quickly share these bits of info with those you trust. A password manager will easily store and track all of these items in a clean and simple interface, requiring only a single master password to quickly access a user's stored information. This will eliminate the need to memorize a multitude of information, and allow swift, safe sharing.

BACKGROUND INFORMATION

Other password managers exist today, however, they come with their own set of limitations. Many competitor managers have a strong dependence on an outside server and often require a user to buy the software. While there are free options on the market, ours is unique in that no data from the user will ever be stored on an offsite server and all passwords and login information will be backed up locally. Given this feature, users will only have to worry about keeping their personal computer secure, instead of worrying about security that is out of their control. Furthermore, other managers are very limited with their data options. Our project will provide a vast amount of different information types without requiring a premium account. Lastly, Sentinel Data Vault will provide the capability to quickly and safely share information with trusted users.

REQUIREMENTS

FUNCTIONAL:

1. As a user, I want to create an account for the password manager.
2. As a user, I want to set a master password for my account.
3. As a user, I want to access all my stored information in the manager using only my master password.
4. As a user, I want to set a master password hint.
5. As a user, I want to reset the master password.
6. As a user, I want to have a sophisticated password generator. (can specify password length, whether or not special characters are allowed, etc.)
7. As a user, I want to check the strength of passwords and be notified of weak passwords.
8. As a user, I want to store a wide variety of data items, including but not limited to:
 - device passwords
 - website logins
 - credit/debit/gift cards
 - wifi networks
 - phone numbers
 - PINs
 - licenses
 - names/addresses
 - notes/lists
 - SSN
 - shipment tracking numbers
 - travel tickets
 - concert tickets
 - ID cards (personal/work ID, library, membership, etc.)
 - garage/door/entry codes
 - personal/health info (blood type, allergies, ailments, vitals, etc.)
 - account numbers
 - dates (birthdays, anniversaries, etc.)
 - coupons
 - application passwords
 - serial numbers
 - receipt/confirmation numbers
 - prescriptions
 - more... (if time allows)
9. As a user, I want to be able to sort my stored data by type or name.
10. As a user, I want to be able to copy out logins, passwords, etc. to the clipboard.
11. As a user, I want to be able to hide/show passwords in text fields.
12. As a user, I want to be able to completely delete my account and its associated data.
13. As a user, I want to be able to create multiple accounts within the manager, each with its separate data
14. As a user, I want to be able to search for an information entry.
15. As a user, I want to be able to backup my account data.
16. As a user, I want to be able to specify a location for backups to be stored.
17. As a user, I want to be able to export all my passwords and logins from the application to an encrypted file for porting to a new machine.
18. As a user, I want to have a shared folder that will be available across multiple accounts.
19. As a user, I want to be able to share a data item securely with another user. (e.g. sharing a WiFi password)

20. As a user, I want to have a reminder to change my passwords (configurable time interval between reminders).
21. As a user, I want my data to be securely deleted after a certain number of failed login attempts (number would be configurable).
22. As a user, I want to have two-factor authentication for account access.
23. As a user, I want to have a built-in virtual keyboard.
24. As a user, I want to have the ability to attach images to a data item.
25. As a user, I want to have an overall security rating base off total password strength.
26. As a user, I want to have automatic internet form filling option.
27. As a user, I want to have a help section with tips/explanations.
28. As a user, I want to have an avatar or picture associated with my account (if time allows).
29. As a developer, I want to more strongly encrypt data deemed highly sensitive (e.g payment info, SSN, etc.).

NONFUNCTIONAL:

1. As a user, I want a visually appealing interface, largely free of the clutter seen in existing managers.
2. As a user, I want an intuitive and easily navigable interface.
3. As a user, I want the application to run smoothly and be highly responsive.
4. As a user, I want my information to always be secure.
5. As a user, I want to be able to input passwords and information easily.
6. As a developer, I want to have a high upper limit to the number accounts in the manager.
7. As a developer, I do not want to have limits on the number of passwords for one user.
8. As a developer, I want the application to be available on Windows, Linux, and Mac.
9. As a developer, I want user data and backup files to be very strongly encrypted.
10. As a developer, I want to clear the clipboard after a copy and paste operation to increase security.
11. As a developer, I do not want to store sensitive information as plain text on disk.
12. As a developer, I want the ability to change encryption in the future and upscale security.