

CCT211 Project 2 Proposal

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I propose creating a password manager that uses tkinter to create GUI windows for listing, storing, and managing users' passwords. It should also be able to randomly generate new strong passwords, and import and export passwords, all done locally on the user's computer. A local password manager is a useful tool for keeping online accounts secure and organized. It allows users to have full control of their own data and reduces the risk of security breaches since there's no need for a third-party application like LastPass or 1Password.

1) Review the [project requirements](#) and ensure you specifically state how you will meet them.

To meet the requirements of the project, these are the features that will be implemented in my password manager project:

- Random password generator: The user will have the option to create a strong random password, like Safari's generating a strong password feature. (Functionality)
- Password encryption and decryption using a custom encrypting/decrypting algorithm: This is to secure the data in case the computer is hacked. (Data management)
- Import passwords from different browsers (Edge, Chrome): The password manager will have a window to import CSV files and will automatically add them into the password database. (Data entry)
- Exporting the password database to a CSV file that can be imported to web browsers. (Data entry)
- A login window that is protected by a master password which will be hashed using SHA-256 hashing algorithm for one-way verification/authentication. (Functionality)

- A main dashboard window to access the different features of the password manager. (Functionality)
- A window to view the list of passwords. (Functionality)
 - A window to add a new password, username, email address, and the website URL. (Data entry)
 - A window to edit password data. (Data management)
- A window to upload password data as CSV files. (Data entry)
- A window to export the database to a CSV files. (Data entry)
- A window for randomly generated passwords. (Functionality)
- An SQLite database to store passwords locally. (Data management)

2) Briefly describe what a successful project of this kind would look like and what qualities it would have. This will matter during the grading of the final project.

A successful password manager project should be a reliable, user-friendly, and secure application that helps users manage their online accounts and protect their sensitive data. It should be well-designed, well-documented, and functional.

3) Link to an initialized (but possibly otherwise empty) GitHub repo.

<https://github.com/Kydesss/cct211project2.git>