

Password Suite

Password Manager

- Database to store password associated with an account (not username)
 - e.g Account : Google, Password : Password123
 - AccountPassword(**AccountName** , Password)
- Password must be stored securely so the database will be encrypted
 - [Wikipedia link on database encryption](#)
 - Most existing password managers use AES-256
- A username and password provided by the user is used to access this database
 - Alternatively a password could be generated that uses words (which a human can remember) which is different to the type of passwords generated by the Password Generator
- Two-factor authentication could be used for further security

Password Generator

[Wikipedia on random password generators](#)

- Ability to generate passwords
- Passwords will consist of [a-z], [A-Z], [0-9] and special characters of custom length (minimum length of 8)
- Option to pick which common password rules to follow (must contain number, must contain special character etc.)
- Or more complex algorithms could be used

Password Tester

[Summary of popular methods](#)

- User enters a password which is then tested using a variety of methods
- Test the password against common word lists
- Show how often the password appears in multiple word list to give an indication as to how likely they are to be cracked
- Test for repeated characters and common sequences (probably in word lists)
- Suggest improvements to user when a common fault is found in the password