Password Vault

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Description of Application

They proposed project is the creation of a password vault. This application will keep track of all credentials, including usernames and passwords, for websites and other applications the user uses a login for. The application is intended for anyone who uses login information.

The reason this will be a useful application is because most people have multiple accounts and passwords associated to all those accounts. It is quite dangerous in today’s day and age to have the same password or similar passwords across multiple if not all accounts. This makes the accounts and user’s information very susceptible to being hacked. This application will allow the user to create multiple unique passwords and store them in one place so that they won’t have to rely on their memory and make passwords that are similar or use the same password for multiple accounts.

The main features of this application are going to be the ability to create a master login, which includes a username and a password, to be able to access and pull the correct file of passwords. The application will allow the user to add, edit, remove, and search for login credentials associated to websites and applications the user wishes to use.

Vault.java

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| --- | --- | --- |
| Description | Data Type | Comments |
| hashTable | HashMap | Containter for Key Value Pairs of Passwords and their associated logns |
| tableSize | int | The size of the HashMap |
| masterPasswordFile | File | File Containing master password |
| masterPassword | String | Master password giving access to all of the users saved passwords |
| identityKey | String | Identity key to identify the user (username) |
| vault() | void | Pulls password data from file and stores in a hashmap, and also gives user access to manipulate the hashmap |
| masterPasswordCheck() | boolean | Checks to see if user has entered the correct master password, returns true or false depending on if password is correct or not |
| toString | String | Overides ToString method, |

Parser.Java

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| --- | --- | --- |
| Description | Data Type | Comments |
| fileCheck() | void | Checks if the file exists or not |
| newVault() | void | Opens new file using user provided path |
| fileToTable() | void | Takes the file, and converts data into hash table |

VaultManipulation.java

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| --- | --- | --- |
| Description | Data Type | Comments |
| checkExistingFile() | void | Checks if File Exists,if it does not creates new file in path |
| CreateNewFile() | void | Creates new file, if it already exists, asks to overwrite the file |
| modify() | void | Modies, the hash table based off user input |
| addPassword() | void | Adds password entry to the hash table |
| change() | void | Changes an existing entry |
| lookUP() | void | Searches for an entry |
| removePassword() | void | Removes an entry |
| passwordEntry() |  |  |
| saveVault() | void | Overwrites the current file, with the current hash table in the program. |

PasswordEntry.java

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| --- | --- | --- |
| Description | Data Type | Comments |
| description | String | Generic comments about entry |
| name | String | User determined name for password association |
| url | String | Is the url you entered |
| dateModified | String | The last time you modified it |
| password | String | Your password for entry |
| username | String | Your username for entry |

Introductory Research

Research will need to be done on how to effectively use file handling and hashmap classes.