

Portfolio 1: Password Manager

For this portfolio project, you guys are supposed to create a proper password manager.

1. It should be created on *tkinter*.
2. It should have a menu, with 3 options;
 - a. Store New Password
 - b. Retrieve Password
 - c. Update Password

Store Password

When the user selects “Store new password” a new form should pop-up, with these functionalities:

1. It should take the *name of the application* (for which you are storing the password)
2. It should take the *username*.
3. It should take the *password*.
4. It should have the *button* to generate a random, strong password for the user if they want on.
5. Once we have given all the required data, we should be able to save all the details, by clicking on the “save” button.

Save Button

The functionality of the save button:

Before writing the data into the file it should check for all these.

1. The *app name* field should not be *empty*.
2. The *username* field should not be *empty*.
3. The *password* field should not be *empty*

If all of them have data, then before writing the data it should show a pop-up message with these details

Ex:

AppName: Facebook

UserName: Junaid

Password: 0224477w

Is this correct?

Then after confirming the information, if user clicks on the “save” button we go ahead and save all of this information onto a text file.

The format to store the data in the text file should be like this

AppName,UserName,Password

The password should be **encrypted** before writing it in the file, to add the security feature.

Retrieve Password

When the user selects “**Retrieve Password**” a new form should pop-up, with these functionalities:

1. It should be for the **application** name.
2. When clicked on the button “Get” to get the password.
 - a. It should check if our text file has the password saved for this application name or not.
 - b. If it has the data, it will **decrypt** the password and then show the user their UserName, and Password for that application
 - c. Else it should pop-up some **error message**.

Update Password

When the user selects “Update Password” a new form should pop-up, with these functionalities:

1. It should ask for **AppName**.
2. It should ask for a **username**.
3. It should ask your **old password**
4. It should ask for a **new password**

Once we click on the “update” button it should check for these things:

1. None of these fields are **empty**.
2. The old password matches the password in our text file. If it doesn't, we simply show an **error message**.
3. If the other two conditions have been checked, we replace the old password in our text file with a new one.