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Software Dev 1

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Software Dev Final Write Up

My project has the user type in a username and password which has the user store that information in the computer so when they rerun the program they can still log in. They also can enter in their email address which gets stored as well. Their information such as their password also gets encrypted to prevent anyone stealing their information. My motivation to create this program is because I have always wanted to make a program that stores information like usernames and passwords to successfully be exclusive to a certain program. My project serves as some sort of access to something.

My project requires the user to input a username, a password, and an email. My program then stores that info in a file on the computer so that they can log on even after they rerun the code. It then encrypts the password so that it can't be seen or hacked with an MD5 encryption hash. In addition, it also asks the user for them to input their email address. The program checks to see if it is a valid email by checking if it has an "@" symbol in the word. The program also does not proceed unless all of the boxes for the username, password, and email have been filled out. This addresses the problem of user's information getting hacked because it becomes well

encrypted. Any email websites that store all usernames, passwords, and email are my inspirations. For example, Gmail, Yahoo. Most websites have a “members exclusive” part of their website where they create a username and password for themselves and store their email to gain certain deals. For example, Sears Shop your way.

At startup, there are four buttons for the user to choose from. The first button is to log in, the second button is to create a username, password, and email, the third button is to confirm your stored email, the fourth button is a quit button. When the user chooses to create an account, the user must enter in a username that you would like to pick. If the username is already taken, then you must think of a new more specific one. Then enter a password you would like to use. The password must be at least seven characters long with at least two numbers in it. The password can only be letters and numbers. After you enter your password, enter in your email address. You can then confirm your email as it checks if you entered your right username and password. Then it compares to see if you typed in the right email address. Then you can log in and out as you please. I successfully created a program that safely takes in and stores information for users to log in and log out at any time. I was unable to create something that sends an email as it was too difficult to figure out. I often used <https://stackoverflow.com> to help me through my code especially with the MD5 password encryption.

Below is my UML Diagram:

ProjectTwo

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+getUser(value:String):void  
+getPass(value:String):void  
+getEmail(value:String):void  
+isUserValid():boolean  
+isPassValid():boolean  
+isUserTaken():boolean  
+isUserValid(String):boolean  
+isPassValid(String):boolean  
+isEmailValid(String):boolean  
+saveUser(getUser):String  
+encryptPass(getPass):String  
+emailConf(getEmail):String  
+authenticate(username, password):String
```