Date: April 22, 2022

# **Password Encryption Application**

# **Introduction**

This project is part of PROG24178 Object Oriented Programming Java-2 class activities at Sheridan College. It aims to enhance our knowledge and experience of how to develop an user interface application using JavaFX and OOP.

# **Project members**

The group members of this project consist of the following students:

* Charanpreet Singh,
* Gurjot Singh,
* Khalid Joraid,
* Robin Bedminister,

# **Challenge**

Nowadays, we have many passwords and need a safe place to keep them. Some services provide a place to store passwords, such as a google account. However, anyone can access this data and view your passwords and where they are used. Also, suppose you keep the passwords in a file with password protection; you are at risk of forgetting the file password, failing to open the file, or if the file does not have a password, someone may open the unprotected file, and your passwords could be accessed.

# **Solution**

To solve the above issue, we could think of an application that keeps our passwords in one place and protect them from being read by encrypting them. Even if this file containing the encrypted passwords gets unwanted access, they remain protected since they are encrypted, and no one can understand what they are.

# **Project High Level Idea**

This project aims to build a Password Encryption application that allows users to enter a list of passwords with related information. Then, the system could encrypt these passwords and save them in a file. Users could retrieve this file at any time, decrypt the passwords for review, change, or add to them and then save it again. After saving the file, the password in the real format will not show up on the file, users can only review the passwords and their details after opening the file using the application.

# **Application UML Design**

Diagram

Description automatically generated

# **Application GitHub Link**

GitHub access to the source code directly via the following link,

<https://github.com/kjoraid/passwordEncryption.git>

# **IDE Used to Develop the Application**

The application development was done using Visual Studio Code - VSC.

# **Application Interface**

Figure 1.1 A suggested form design.

Graphical user interface

Description automatically generated

1. Password Encryption is a form that show the text fields and buttons as illustrated in the figure 1.1. How it works.
   1. Write a file name and fill the text fields with proper details and click on Save:
      1. Data will be saved in the file
      2. The encrypted file will be created and saved in the current application folder
   2. Click Open to choose and open a file and show the details on screen
   3. Click New to clear the screen and start over again with new file name

# **How it works**

1. Write a file name and fill the text fields with proper details and click on Save
   1. Data will be saved in the file

Graphical user interface

Description automatically generated

* 1. The encrypted file will be created and saved in the current application folder

Graphical user interface, text

Description automatically generated

1. Click Open to choose and open a file and show the details on screen

Graphical user interface

Description automatically generated

Graphical user interface, text, application

Description automatically generated

Graphical user interface

Description automatically generated

1. Click New to clear the screen and start over again with new file name

Graphical user interface

Description automatically generated