

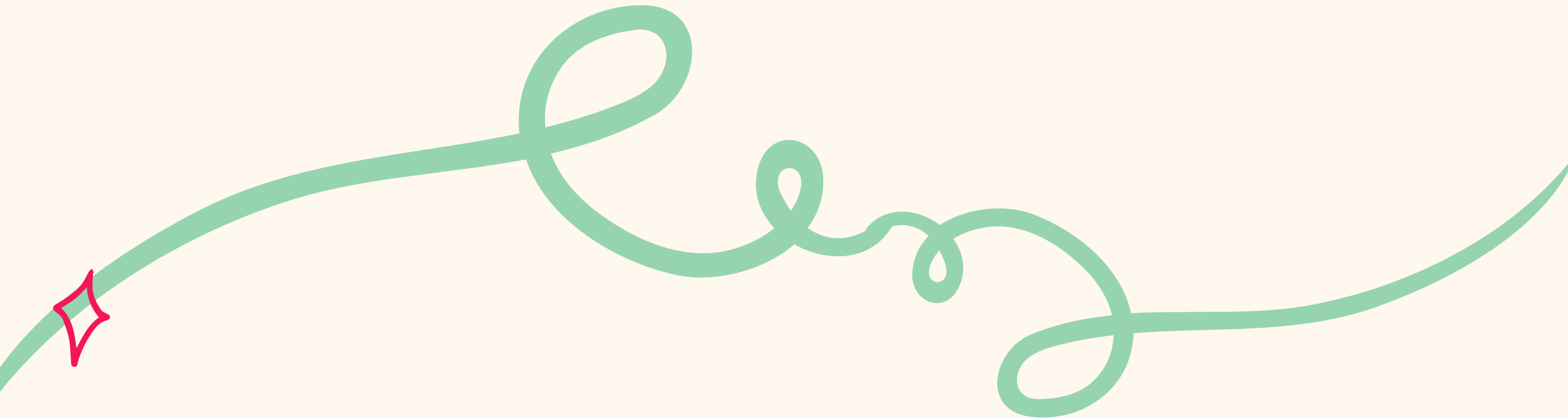


Secure File Storage Using AES Encryption

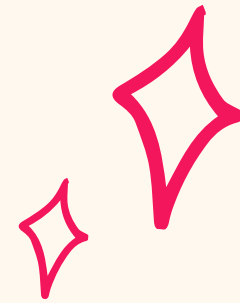


Introduction

✧ A secure application for encrypting and decrypting files with user authentication, file upload, AES encryption, simple file retrieval, And error handling.



Functions



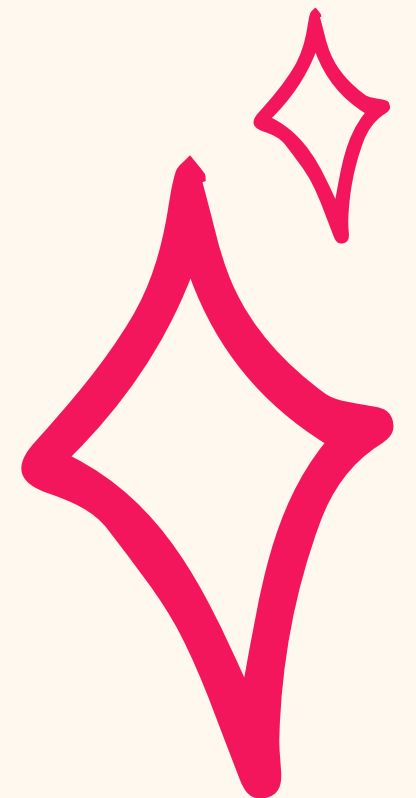
- User Interface
- User Authentication
- File Upload
- AES Encryption
- Retrieval and Decryption
- Error handling



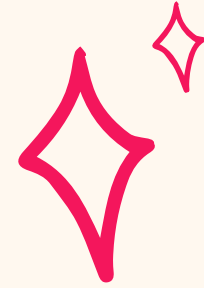
User Interface

Built with Tkinter for simplicity and responsiveness.

Full-Screen display for better user experience.



User Authentication



Users can Register and Login securely.

Passwords are hashed using SHA-256 before being stored.

Protects against password leaks or exposure.

A screenshot of a web application login interface. The main window is titled "Secure File Storage - Login" and contains a "Login" form. The form has two input fields: "Username:" with the value "LUBNA" and "Password:" with the value "*****". Below the fields is a red "Login" button. A modal dialog box is open in the foreground, titled "Login Successful", displaying a blue information icon and the text "Welcome, LUBNA!". An "OK" button is at the bottom of the modal. The background of the application is a light orange color, and there is a dark blue footer bar at the bottom.

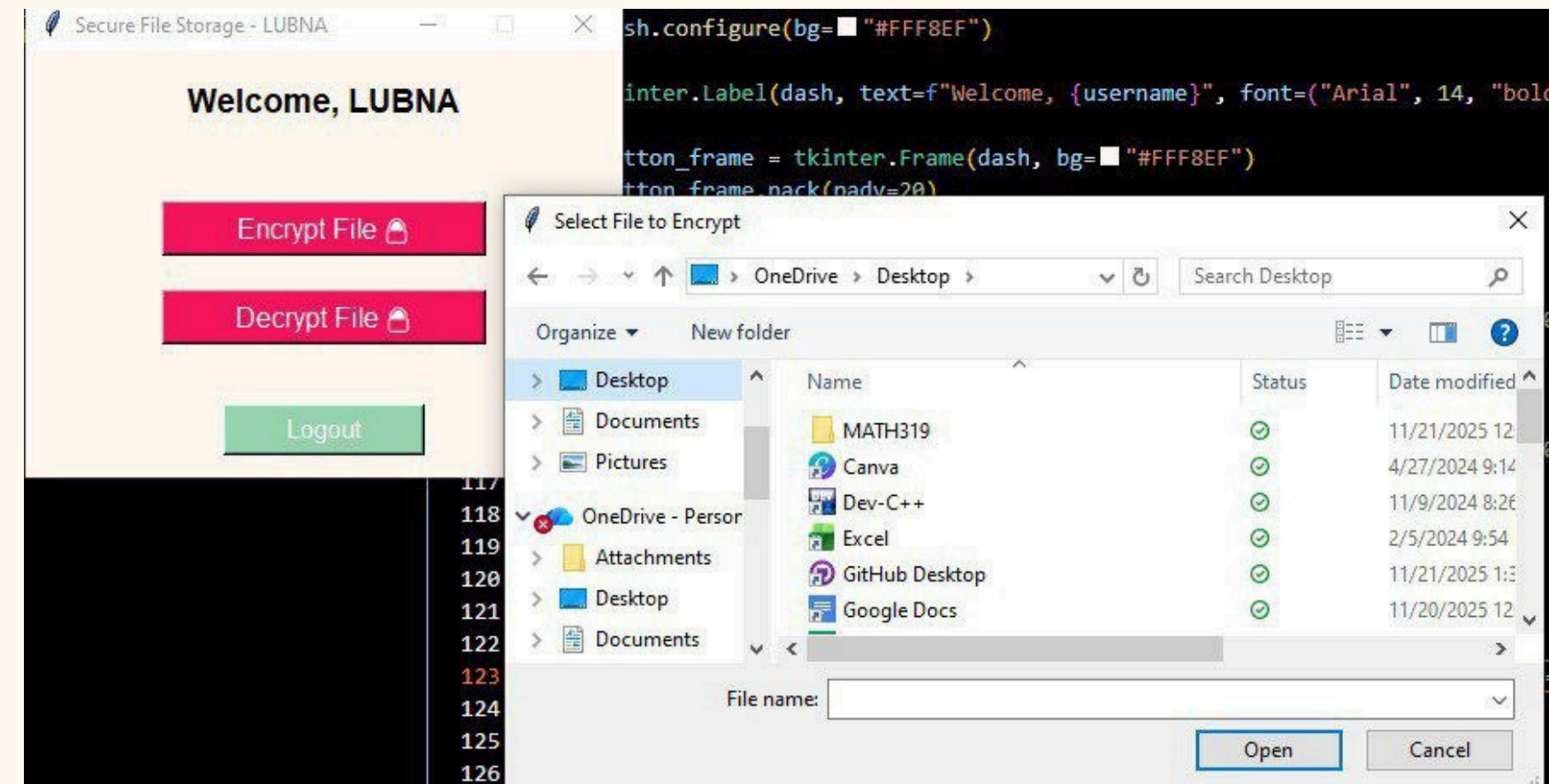
File Upload



Users can easily select files from their computer.

Supports different file types.

Uploaded file path is displayed in the application.

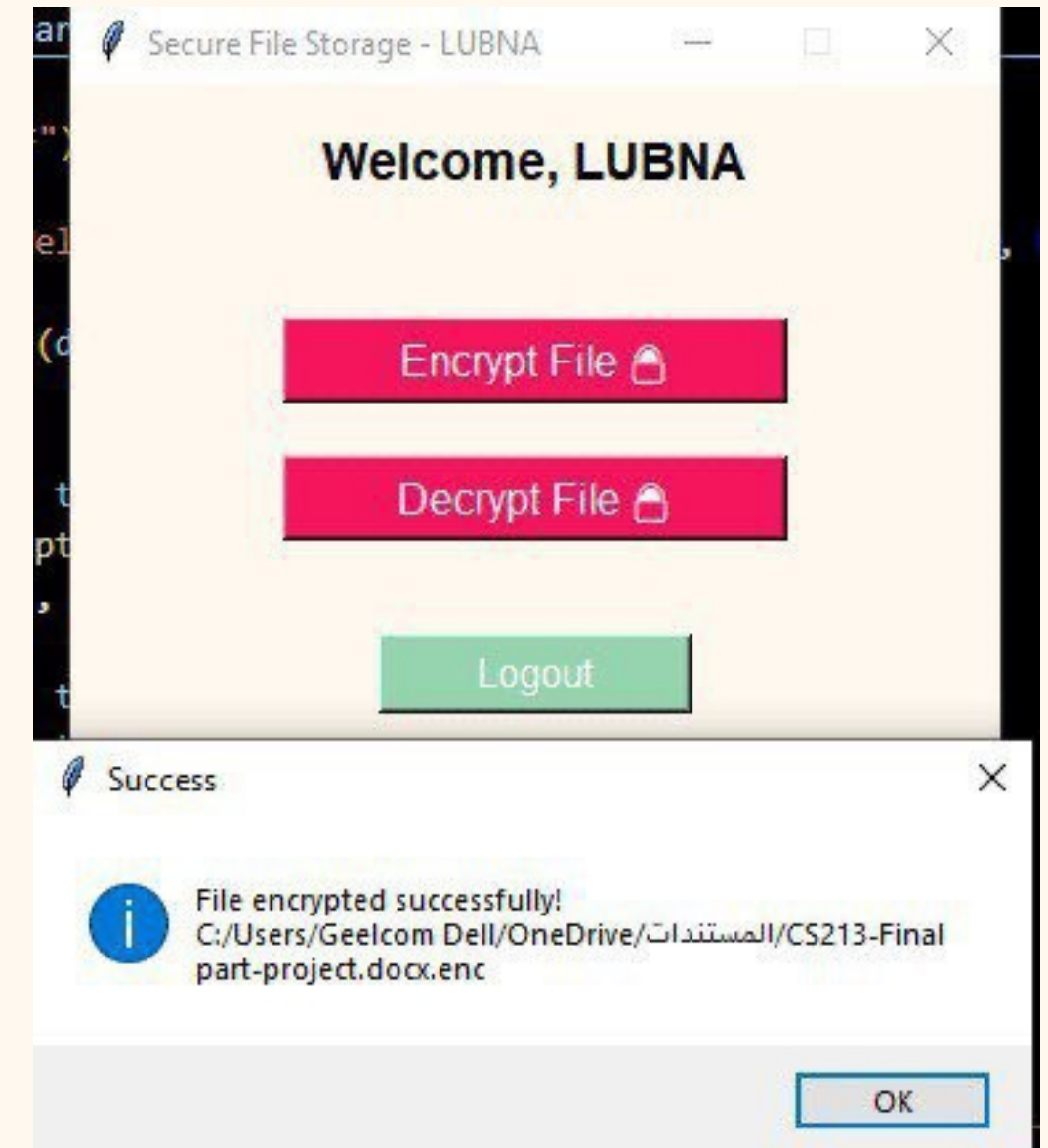


AES Encryption

Files are encrypted using Fernet, which is based on AES encryption.

A secure encryption key is generated and stored safely.

Ensures strong protection for user files.

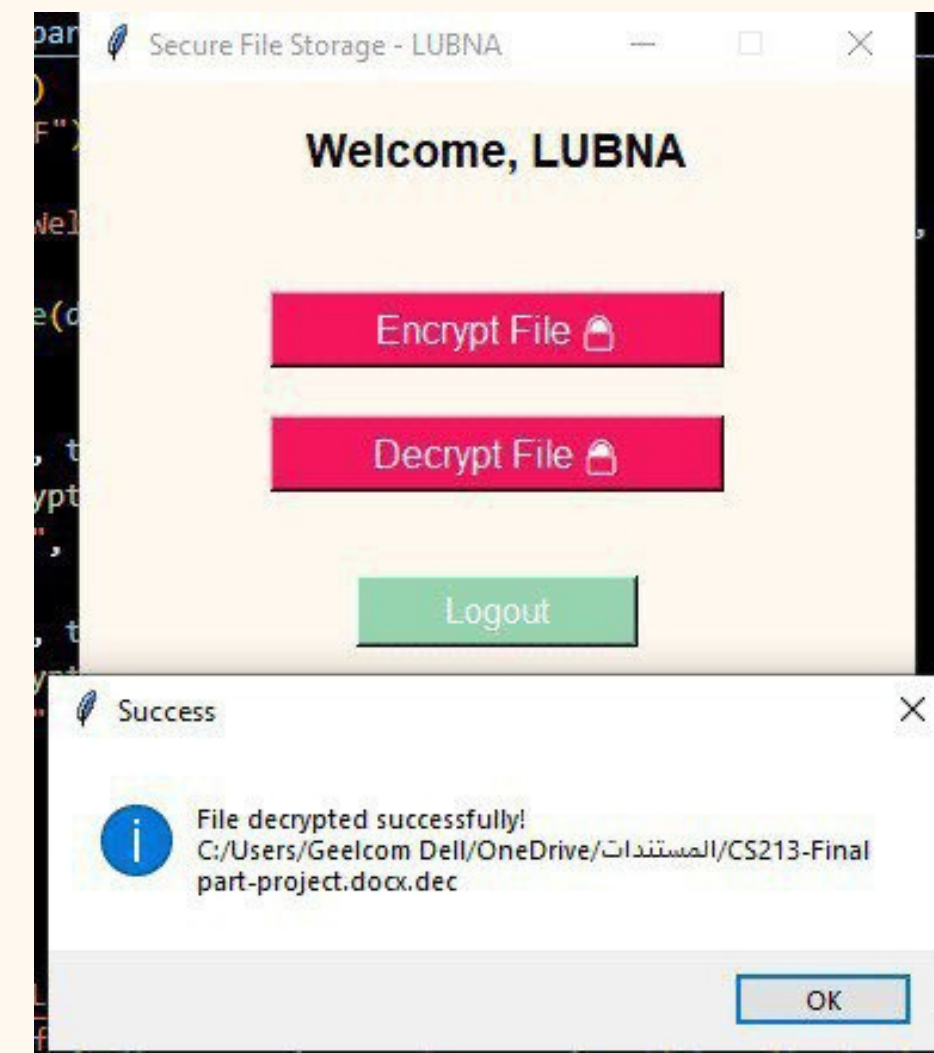
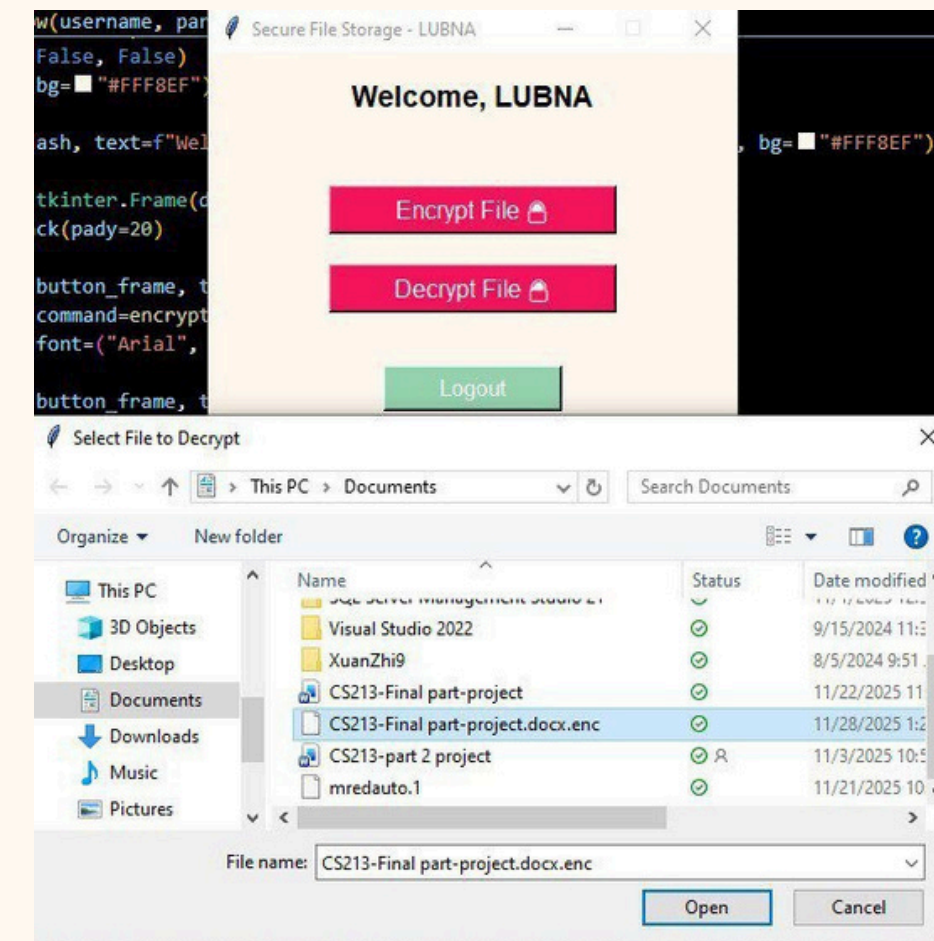


Decryption

Encrypted files can be decrypted back to their original form.

Only users with the correct key can decrypt the files.

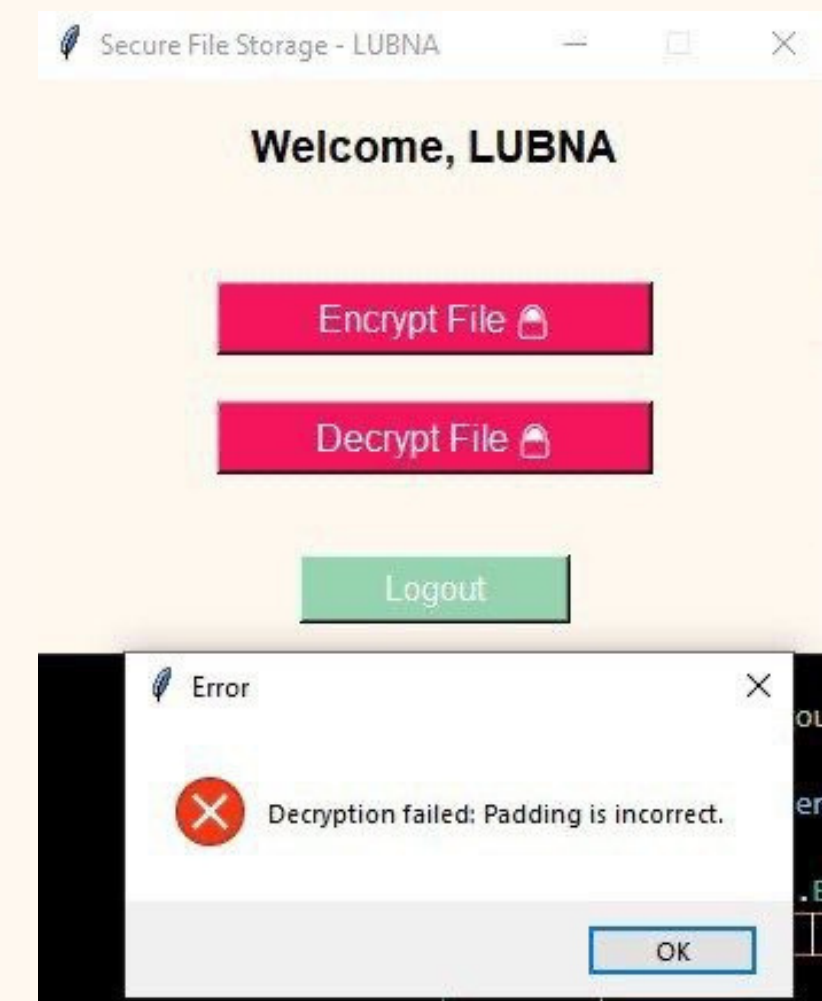
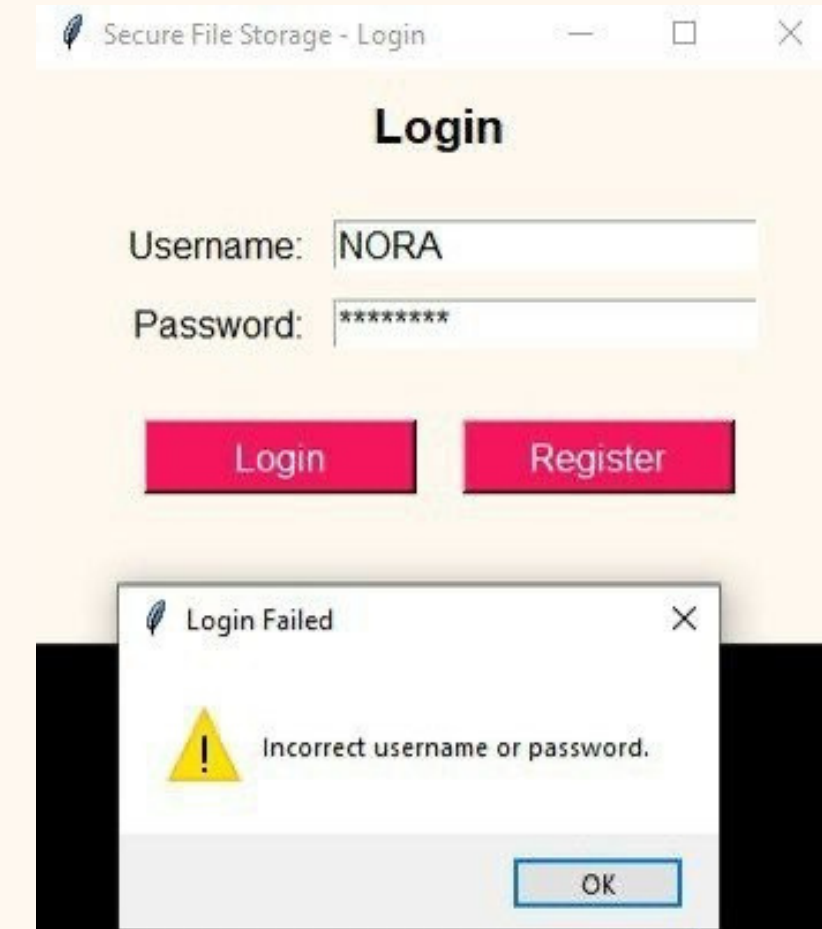
Safe and reliable retrieval process.



Error handling

The authentication process protects accounts from unauthorized access.

Only users with correct login credentials can access the system.





THANK YOU

