Final Project Proposal Presentation - DS

CIPHERSHIELD: ENCRYPT & DECRYPT

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BACKGROUND

In the digital age, data security is vital due to the rising volume of information. Encryption plays a crucial role in converting data into a coded form to safeguard its confidentiality.

PROBLEM DESCRIPTION

Many organizations still underestimate the importance of encryption, even with the widespread usage of encryption. Inefficient encryption may lead to the loss of data, and, exposing sensitive data may result in costly penalties, lengthy lawsuits, as well as the possibility of reputations being ruined.

SOLUTIONS

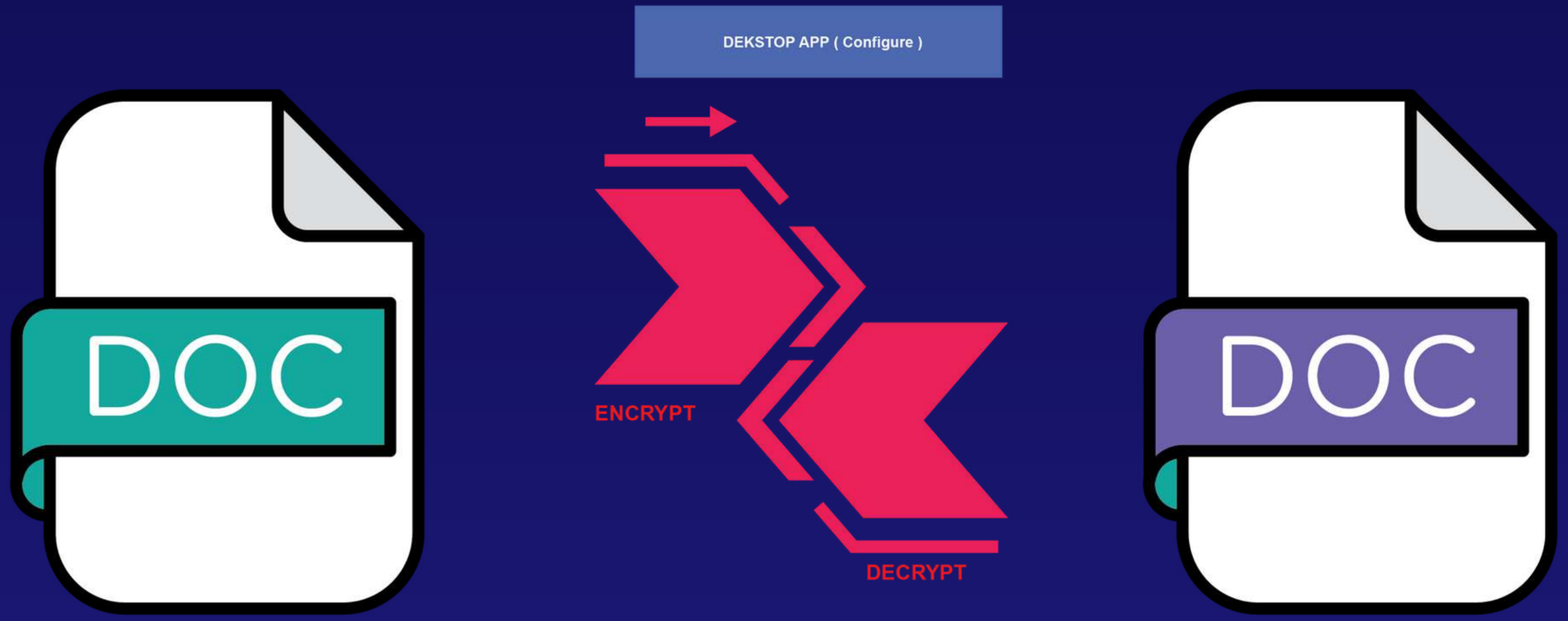
By using a hashtable to do the encryption and decryption, we are going to use a linked list, an array list, a hash, and trees as our data structure.

TARGET

1. Build Encryption Library
2. Extend the ability : Convert & Replace Ms.Word
3. Extend the ability : Keyboard shortcut as an invoker

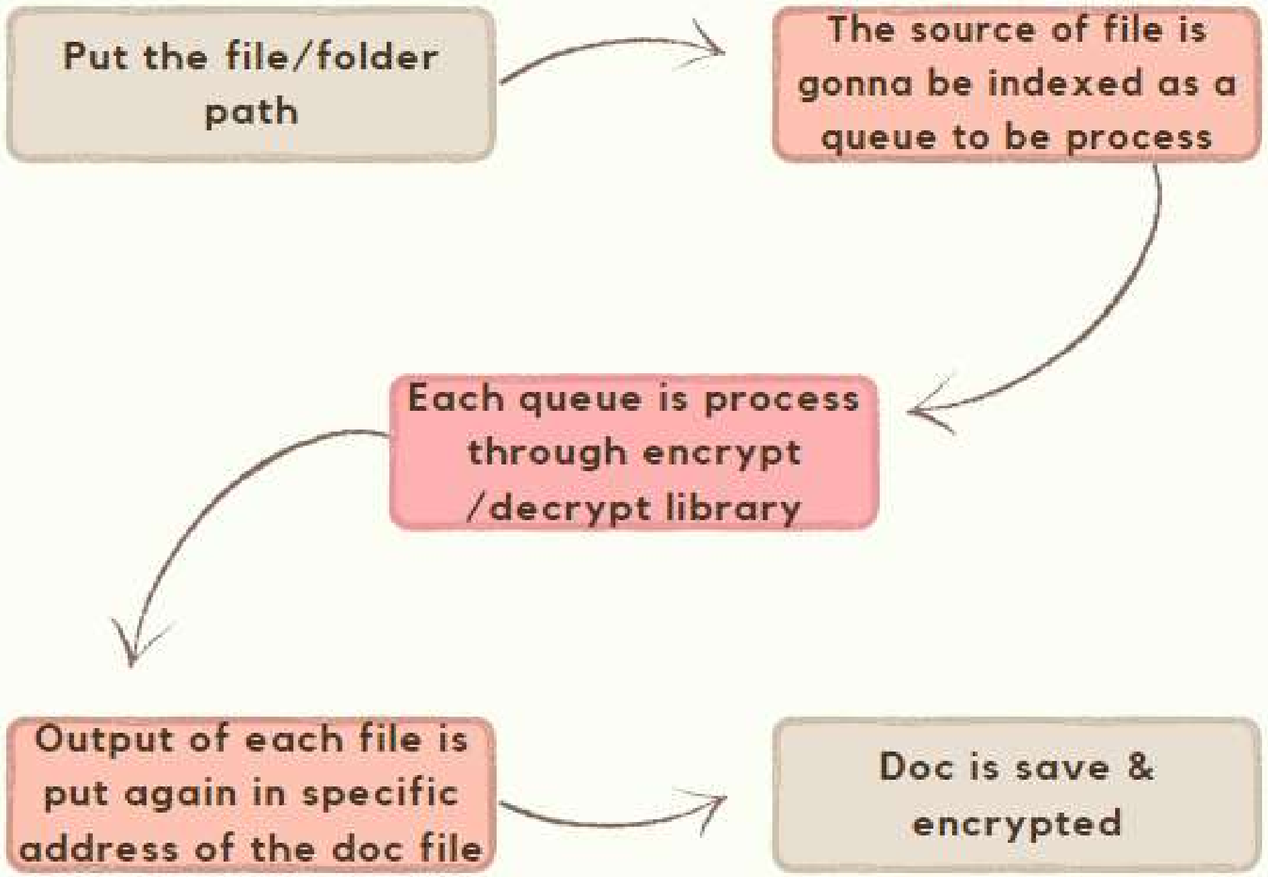

03 CIPHERSHIELD
EXTENDED SECURITY
02
USER INTERFACE
01
UNDERGROUND SECURITY

CTRL + E / CTRL + D



Java Swing

HOW THE APP WORKS



TEAM WORKLOAD

Ari

Make the encryption/decryption library

Michael

Make the app be able to convert and change the content in Ms. Word

Riki

Build the GUI and add shortcuts to make the user easier to encrypt and decrypt

PLAN B

MOVIE RECOMMENDATION

Choosing a movie is challenging due to genre preferences, overwhelming choices, conflicting group preferences, lack of information, and time constraints.

REFERENCE

- Cash, David, et al. “Dynamic Searchable Encryption in Very-Large Databases: Data Structures and Implementation.” Cryptology EPrint Archive (Eprint.iacr.org), 2014, eprint.iacr.org/2014/853. Accessed 25 Mar. 2024.
- M. R. Alves, Pedro G., and Diego F. Aranha. “A Framework for Searching Encrypted Databases.” Journal of Internet Services and Applications, vol. 9, no. 1, 3 Jan. 2018, https://doi.org/10.1186/s13174-017-0073-0. Accessed 11 May 2023.
- Mahajan, Dr. Prerna, and Abhishek Sachdeva. “A Study of Encryption Algorithms AES, DES and RSA for Security.” Global Journal of Computer Science and Technology Network, Web & Security, vol. 13, no. 15, 2013, s.id/24m7I.

THANK YOU