Chapter 7: System Architecture

7.1 Introduction

File Encryption and Decryption System is encrypt and decrypt software to safe file from hacking

There are 4 types part in this system.

They are Encrypt/Decrypt Files, Encrypt/Decrypt Folder, Encrypt/Decrypt Rar(or zip) and File Integrity.

In Encrypt/Decrypt File part, user open some file from open dialog.

And if you encrypt some file, user must input password.

Password must be included1 uppercase letter and lowercase, two numbers and one special character

And length is above 8 characters.

If password section and confirm password section does not match, an error should display.

And then in decrypt file part, if user input incorrect password 3 times, the file is automated delete.

After encrypt and decrypt file, original file is deleted

In encrypt/decrypt rar(or zip) are equal with encrypt and decrypt file part.

It also user must input password and open rar or zip file and encrypt or decrypt button click.

In Encrypt/Decrypt Folder, user also input password.

And then when user click encrypt button, this system zipped selected directory to zip and encrypt this zip file and then save it to \*.folder. And then delete zip file and original directory.

When user decrypt this folder, this system decrypt \*.folder file and extract zip file.

In File integrity check part, when user open encrypt file, this system show detail information of encrypt file and show hash value of encrypt file.

If user open non-encrypt file, system pop-up message with this file isn’t encrypt file

And it can compare file with their hash value.

For example, some file’s id is F5000, and hash value is …,

So user open encrypt file, system show hash value of these file and user can compare this hash value with already saved hash value in database.

So if they are different, system pop-up message like it “The file is modify”.

Finally this system used AES crypto algorithm base on CBC mode.