Project Report

Peter Yamout

Ahmad Traboulsi

Karim Barada

Idea:

This project aims to make a simple app that can encrypt files and folders. This app has a GUI that you can use but u can also encrypt files and folders by right-clicking on them. There are 2 methods of encryption available. First, we have AES Symmetric encryption which takes a password from the user hashes that password and uses the hash to encrypt the contents of the folder or file. Second, we Public-Private Key encryption in which you create Public and Private keys that you can use to send to other people who also have the app and also encrypt files and folders that only specific people can decrypt. The public and private keys are stored in files and are used in the app as files this makes it easier to handle, send to people and store them. This also doesn’t require the user to memorize the keys.

Implementation:

The programming language used to create this app is Python. We use the Tkinter library to create the GUI and as for the encryption we used a library called “cryptography”, since it is unsafe to code the algorithm. From this library we used it’s Fernet class in order to do the AES encryption in CBC mode which takes in a 128 bit key, and for the public private encryption we used it’s “hazmat.primatives” sub-module. We also added the program to the right-click window of files and directories using the “winregistery” library and made a desktop short cut by using the “winshell” library.

How to install:

1. Download python (make sure its added to your environment variables).
2. Download the zipped folder and unzip it.
3. Place the unzipped folder wherever you want to keep it.
4. Open the folder and run “install.bat”.