**Assignment 1: Report**

This assignment is written on Python 3.10.12 and uses the pycrytodome package.

Before running the program, ensure that the terminal is directed to the same path as where the Python program is located. The text files to encrypt should also be in the same folder as that of the Python program. For example, the location of my program is stored in “~/Downloads/7910502\_Assignment1”, hence the terminal would be directed to the path to run the program as shown in subsequent diagrams.

A screenshot of a computer

Description automatically generatedUpon running the program, the list of text files to be encrypted would have their names extracted and printed out in the terminal, and subsequently the encryption process begins. The program would produce “.encrypted” files for each text file, which contains their initialization vector and ciphertext.

Original contents of ‘1.txt’ and its encrypted counterpart ‘1.txt.encrypted’

A screen shot of a computer

Description automatically generatedA screenshot of a computer

Description automatically generatedAfter encrypting all files, the terminal would print a statement stating completion, and would prompt to ‘press enter to continue’. As the encryption and decryption methods are placed in the same program, this prompt would serve as a break in between to indicate the endpoint for encryption and the starting point for decryption.

A screen shot of a computer

Description automatically generatedThe program continues after pressing ‘enter’ and executes the decryption, which prints out the decryption result and also produce “.decrypted” files for each decryption performed before ending the program.

Decryption results, ordered in the same sequence as the list of text files (i.e. each message originates from ‘3.txt’, ‘2.txt’ and ‘1.txt’ respectively)

A screenshot of a computer

Description automatically generated

Decrypted file counterpart ‘1.txt.decrypted’