

COL759 Assignment-1 Requirements

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Encryption Directory: This folder contains the script for encryption of plain text using Hill Cipher. Simply run `encryption_script.py` file without any arguments. In this directory there are three data files:

- 1) *key.csv*: Contains the key for encryption given as input to the program.
- 2) *Plain_Text.txt*: Contains the plain text provided as input to the program, just paste all the plain text you intend to input in a **SINGLE LINE** (can be done using notepad)
- 3) *Cipher_Text.txt*: Contains the output of encryption program, can be used for verifying correctness

Decryption Directory: This folder contains the script for decryption of plain text using Hill Cipher. Simply run `decryption_script.py` file without any arguments. This takes as input the cipher text and key giving plain text as output. In this directory there are three data files:

- 1) *key.csv*: Contains the key for decryption given as input to the program.
- 2) *Plain_Text.txt*: Contains the output of decryption program, can be used for verifying correctness
- 3) *Cipher_Text.txt*: Contains the cipher text provided as input to the program, just paste all the cipher text you intend to input in a **SINGLE LINE** (can be done using notepad)

Cryptanalysis Directory: This folder contains the script for cryptanalysis of Hill Cipher. Simply run `cryptanalysis_script.py` file without any arguments. In this directory there are four data files:

- 1) *Key.csv*: This is an output file generated by program, you don't have to do anything on it, can be used to verify correctness
- 2) *Partial_Plain_Text.txt*: Input plain text to the program, just paste all the plain text you intend to input in a **SINGLE LINE** (can be done using notepad). Please input at least 100 characters in this file [since we need to try key sizes up to 10, these many characters are required]
- 3) *Partial_Cipher_Text.txt*: This contains the cipher text corresponding to the text in *Partial_Plain_Text.txt*. Please input all the text you intend to input here in a single line
- 4) *Cipher_Text.txt*: Input cipher text to the program, just paste all the cipher text you intend to input in a **SINGLE LINE** (can be done using notepad). Please input at least 100 characters in this file [since we need to try key sizes up to 10, these many characters are required]