

-----Overview-----

This Cryptography GUI Tool allows users to perform encryption, decryption, and hashing using various cryptographic algorithms. The supported algorithms include DES, AES, RSA, and ECC for encryption/decryption and SHA-256 for hashing and hash verification. The tool uses a graphical user interface (GUI) built with the 'tkinter' library.

-----Features-----

1. DES Encryption/Decryption
2. AES Encryption/Decryption
3. RSA Encryption/Decryption
4. ECC Encryption/Decryption
5. SHA-256 Hashing
6. SHA-256 Hash Verification

-----Prerequisites-----

1. Python 3.x
2. Libraries: pycryptodome, cryptography, tkinter

Install the required libraries using: [pip install pycryptodome cryptography]

-----Usage-----

1. **Run the script:-** Execute the script in a Python environment to open the GUI "python file_name.py"
2. **Input text:-** Enter the text to be encrypted, decrypted, or hashed in the "Input Text" area.
3. **Select operation:-** Click the corresponding button to perform the desired cryptographic operation.
4. **View output:-** The result of the operation will be displayed in the "Output Text" area.
5. **Key file selection:** For decryption operations, select the appropriate key file when prompted and while during decrypting the "ciphertext" you must copy it and paste in "Input field".

-----Notes-----

1. Ensure that the necessary keys are generated and saved before attempting decryption.
2. For RSA and ECC encryption/decryption, both public and private keys are generated and saved.
3. The keys are saved in the same directory as the script.