**Project Name:** Image Encryption

**Github Link:** https://github.com/projectsforstudents2022/Image\_Encryption.git

**Why was this project created?**

The process of converting plaintext or any other sort of data from a readable form to an encoded version that can only be decrypted by another entity if they have access to a decryption key is known as encryption in computers. One of the most crucial techniques for ensuring data security is encryption, particularly for end-to-end security of data transported across networks.

**What problem is it solving?**

The objective of this project is to give consumers secure access to accurate data. Some users may experience data loss during the network's transmission process, while others may experience data modification by an unauthorized user. This software's goal is to protect data so that only the user and not anyone else can access sensitive information.

**Entire explanation of project**

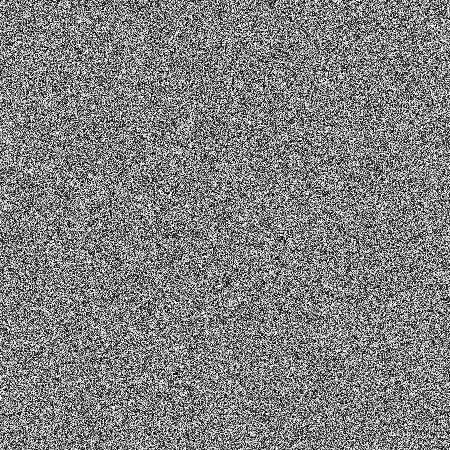
* **PROPOSED APPROACH**

This software has two primary buttons (Encrypt, Decrypt), as well as a textbox for user input. The first tab, the "encrypt" page, will enable users to choose

the target image and delivers the resultant encrypted image. The user can decrypt the encrypted image using the second tab, the "decrypts" option. Python was used to create the image security system, making it hardware independent. Hardware is not required at all. Because it is a lightweight programme that runs on any operating system, no additional RAM is required. Any OS requires 16 MB of RAM in order to run software.

Python will be used for implementation, and it may be used on any system with a Python compiler (which varies depending on the operating system). This system feature encrypts the image using the symmetric Advanced Encryption System Algorithm. This system feature decrypts the image using the same AES method and phrase. The majority of cryptographic ciphers rely on operations with high computational costs. Asymmetric key encryption/decryption is therefore much more powerful than symmetric key encryption/decryption when performance issues are taken into account. In addition to offering higher security than symmetric keys, it also offers very good file encryption performance. It is multifunctional software. However, we have chosen a symmetric approach out of simplicity.

* **RESULT**





**CONCLUSION**

Growth is a major worry in the information security industry since it brings about change, which begins when we consider a novel idea. We introduce one in the area of information security under the heading of picture encryption in this work. Image encryption can be described as the process of encrypting confidential images using an encryption method so that only authorised users can decipher them. Even though it seems difficult to execute, this method is quite effective and adds another feather to the advantages of picture encryption with CBC inclusion.