Encryption and Decryption

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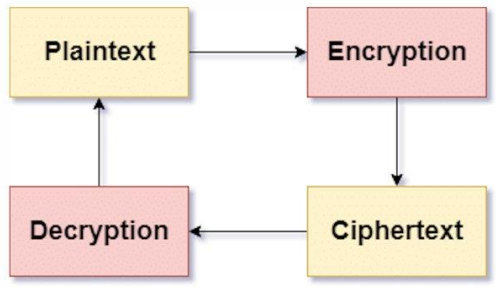
Abstract: Cryptography means changing the text of a message so that people who don't know your secret never understand your message. In this article, I will create a GUI application to encrypt and decrypt using Python. To encrypt and decrypt with Python, you need to create a program in which it will first ask you if you want to encrypt a message or decrypt it. Then the program should receive a message from the user.If the user chooses to encrypt the message, the user's message must be transformed into a secret code. But if the user chooses to decrypt the message, your program should be able to convert a secret code into a meaningful text.

Technologies: Python



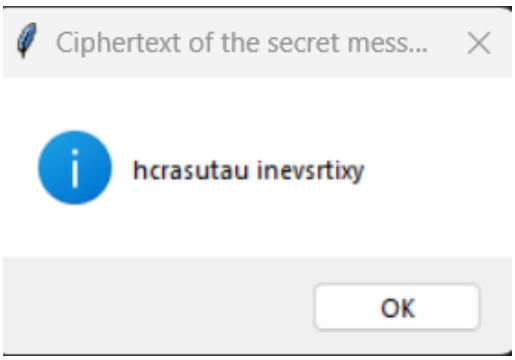
Introduction: In the evolving world of data and information transfer, security of the file contents remain to be one of the greatest concerns for companies. Some information can be password protected (emails, logins) while other information being transferred via emails or FTP lacks efficiency if protected by some keyword. This is where file encryption plays a big role and provides security and convenience sought by parties engaged in file transfers. So what is encryption? It is a process of converting information into some form of a code to hide its true content. The only way to access the file information then is to decrypt it. The process of encryption/decryption is called cryptography. Encryption is the process of encoding a piece of information in such a way that only authorized parties can access it. It is critically important because it allows you to securely protect data that you don't want anyone to see or access. Decryption is the process of transforming data that has been rendered unreadable through encryption back to its unencrypted form. In decryption, the system

extracts and converts the garbled data and transforms it to texts and images that are easily understandable not only by the reader but also by the system. Let's see how we can encrypt and decrypt some of our files using Python. We will follow symmetric encryption which means using the same key to encrypt and decrypt the files.

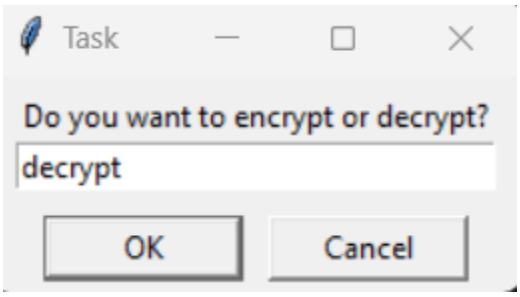
Encryption of a Message:

After executing the code you have to select whether you want to encrypt or decrypt the message.

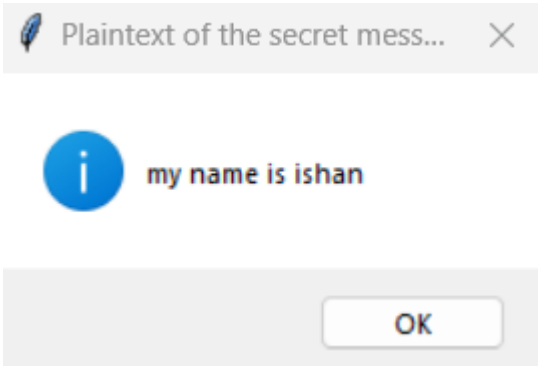
Enter the plain text for Example: Charusat University and in output we will receive the Encrypted message.



Decryption of Message:



Enter the cipher text For Example: **ymn ma esii hsna** and in output we will receive the decrypted message.



Refrences:

https://www.geeksforgeeks.org/how-to-encrypt-and-decrypt-strings-in-python/