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Encryption And Decryption To Send Secure Message

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Abstract

Transferring any image is very convenient method of passing information. But, many times the image needs to be secure so that any other person should not be able to see the image or use it. Encrypting the image before sending and then decrypting it after it is received by the genuine receiver will solve all the security related problems for secure message transmission. But basic encryptions like 8-bit or 16-bit can be broken easily. And hence a much secure method is proposed in the proposed to ensure complete security of the messages..

1. Introduction

Data security has become most important aspect while transmission of data and storage. The transmission and exchange of image also needs a high security. Cryptography is the art of secret writing. Cryptography is used to maintain security. The basic service provided by cryptography is the ability to send information between participants in a way that prevents others from reading it. shows the creation of interrupts between sender and receiver.

2. Literature Survey

We have surveyed the existing projects and finally thought of making necessary modifications for getting the latest edition.

Existing System:-

Currently, most the of image transmission apps doesn't use encryption and even the apps of platform which uses it are using a normal encryption method which leaves a doubt to be broken. The reason for that being, those platforms use standard algorithms which are available to everyone and attempts to crack that particular algorithm is being done as well. The Complete Standard Algorithm can be prone to risk because it is available globally and attempts are being done continuously to crack them. Meanwhile, a completely customised algorithm cannot be trusted for reliability and security.

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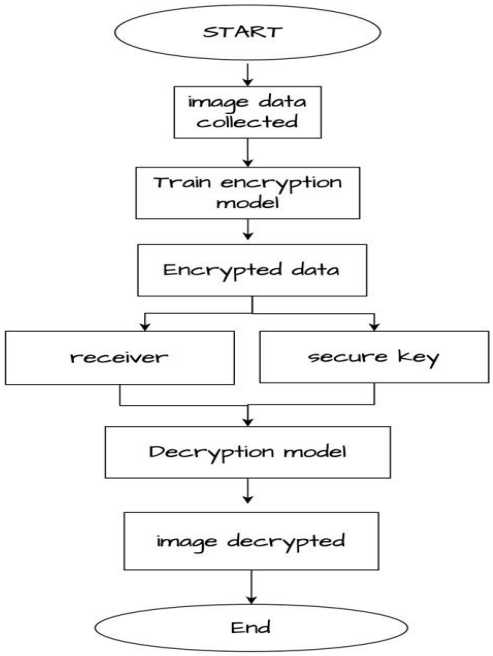
Proposed System:-

In our project, we are proposing a system using Python Programming Language which will implement a very high level Hybrid Encryptions mechanism which will involve multiple different most advanced algorithms to be used in a specific chronological order to Encrypt of Decrypt the data. The system is supposed to be much secured when compared to other general type of encryptions available. And because the encryption mechanism will be unique and secret, It is much more secure. We will be using Hybrid of advanced algorithms like Sapphire and REDOC.

4.IMPLEMENTATION-



The System will start and will be ready to take user inputs. The input can be any type of image and then the system will give us the encrypted image data.

The System will start and will be ready to take encrypted user inputs. The input can be encrypted image and then the system will give us the original data.

The System starts by taking an image input from sender. The Sender will be able to select a single image or multiple images at the same time.

Once the Sender selects the files and clicks on Encrypt button, He will be getting an Encrypted file.

Now this encrypted file will contains the encrypted data of complete original images. This particular encrypted file can be send to receiver by any means.

The System will take the input image file and encrypt it through the process of our Hybrid algorithm.

Once the Encrypted file is received by the receiver, The Receiver can decrypt it only using our App. He/She have to open our System and select decrypt option.

The Decrypt option will ask the user to select the encrypted file and few more details.

If everything okay, then the Receiver will be getting the original image files at output or else the system will particular error if any.

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5.Results-

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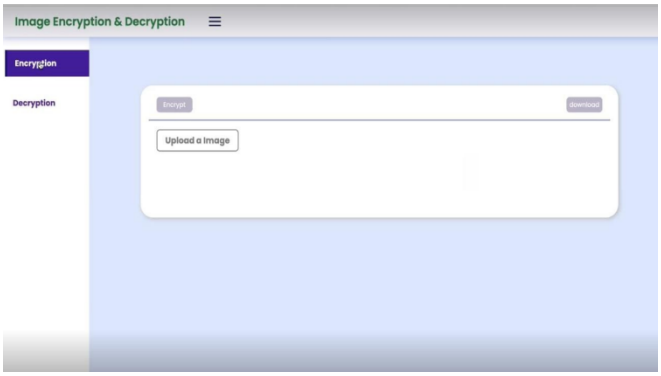
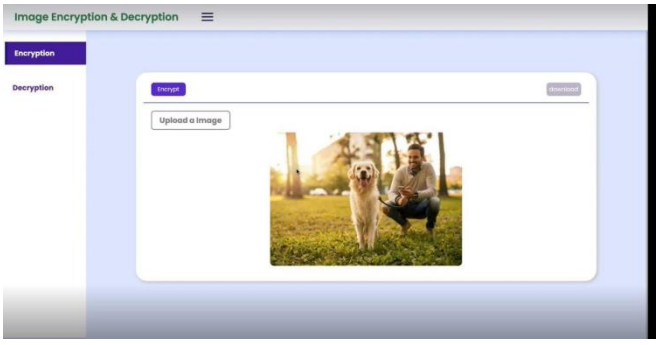
UI Design	*Design Description(functions,operations…)*
	Upload a image or file to encrypt.
	After uploading, click on the encrypt button to get encrypted image.

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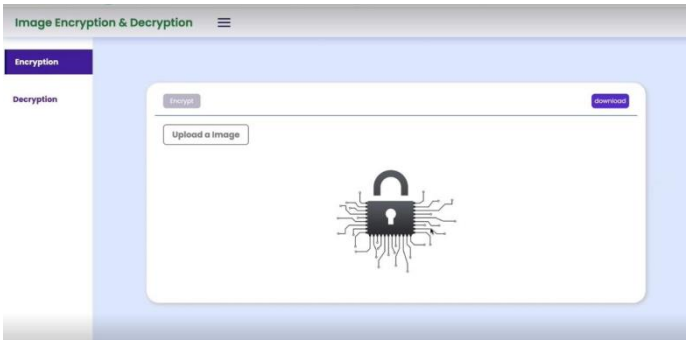
	It takes time to load encrypted image.
	The encrypted image is loaded.
	After Encryption, To decrypt the image ,upload a encrypted image.

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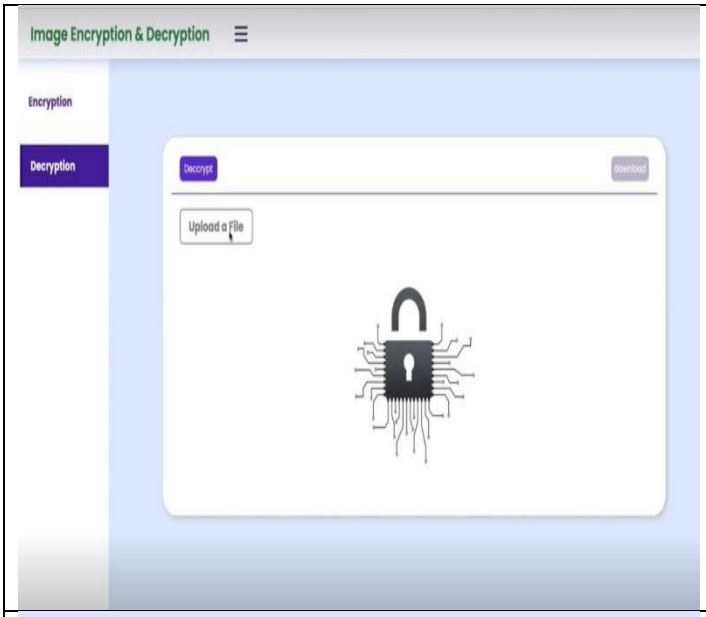
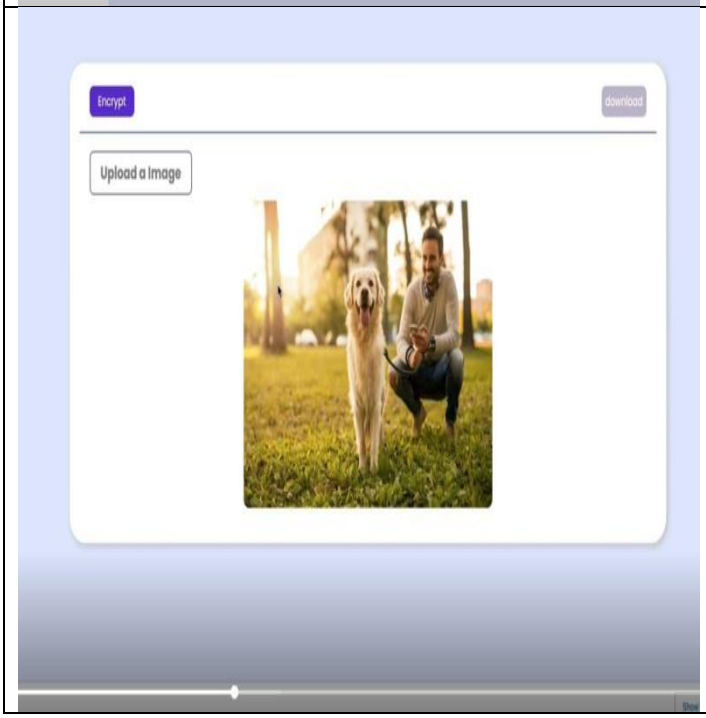
	After uploading, Click on decryption button to get decrypted image.
	Finally, the image will be decrypted.

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6.Conclusion-

Conclusion Cryptography is used to secure and protect data, and encryption-decryption is two critical processes. Encryption methods help users protect their confidential information like passwords and so on. But decrypting these coded messages to be readable is also an important step.

Data security has become most important aspect while transmission of data and storage. The transmission and exchange of image also needs a high security. Cryptography is the art of secret writing. Cryptography is used to maintain security. The basic service provided by cryptography is the ability to send information between participants in a way that prevents others from reading it. shows the creation of interrupts between sender and receiver.

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8.Appendix-

HEM - Hybrid Encryptions Mechanism
Encryption - Converting plain text into cypher text.
Decryption - Converting cypher text into plain text.
Hybrid algorithm - Combination of two or more algorithms.