

CFR&ASEN

(Criminal Face Recognition and Alert System with Email Notification)

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Introduction:

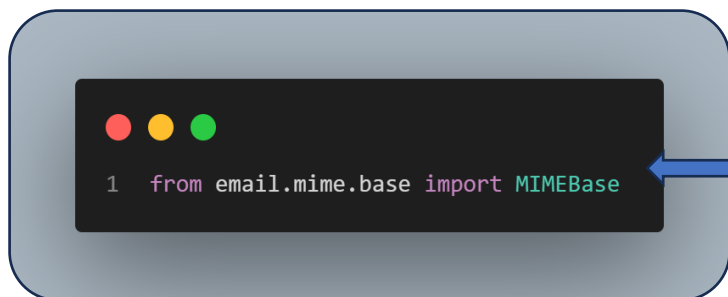
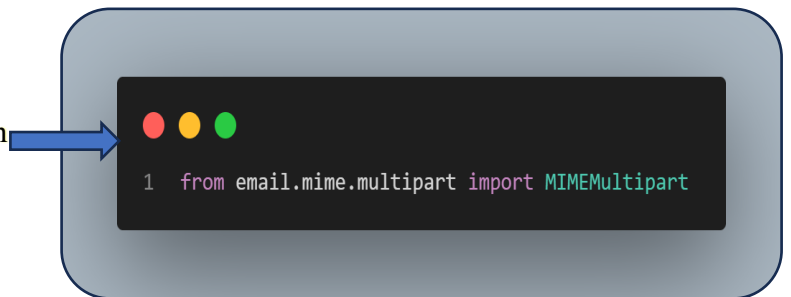
This program captures video from a webcam, applies filters based on hand gestures, and checks if the person captured has a criminal record by comparing their face to a list of known criminals. If a match is found, it sends an email with an attachment and a message. In this generation security is our top priority that's why we created a CFR&ASEN (Criminal Face Recognition and Alert System with Email Notification) this project can be used to create a National ID, School ID, Passport, and so on. The CFR&ASEN represents cutting-edge solution designs to enhance security and provide real-time notification of potential security threats. This project combines computer vision, hand gestures, face recognition, and Email.

Libraries used:



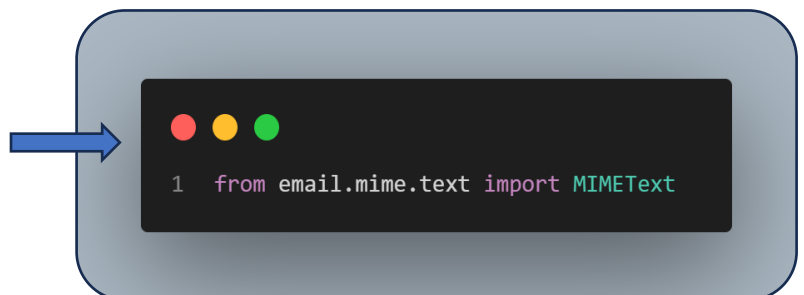
SMTP or Simple Mail Transfer Protocol is used to send or receive an email.

MIMEmultipart(Multipurpose Internet Mail Extensions) is a Python class used to create an email file.



MIMEbase is a Python class used to create a message base that may contain other messages.

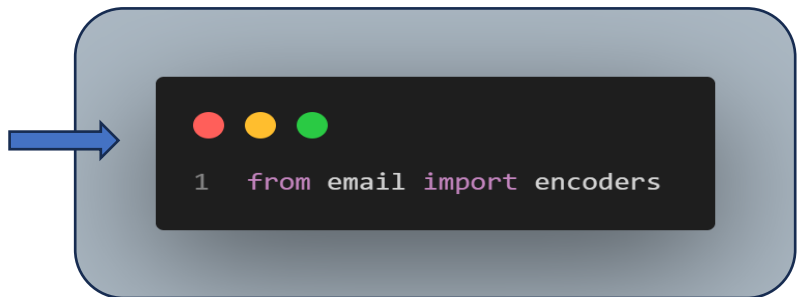
MIMEtext is a Python class used to create text-only email.





SSL it's a type of security to makes your email unreadable and in case of security threats.

The encoder function is used to encode a string using the base64 algorithm.



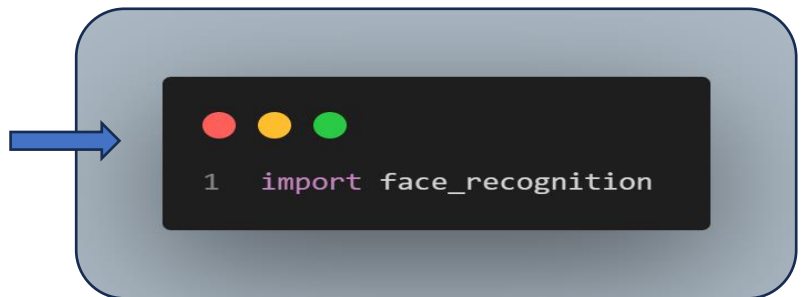
Real-time computer vision.

Mediapipe is used for hand tracking and more.



OS module in Python provides a way to interact with the operating system.

face_recognition function is to perform face recognition task.



Recommendation:

Our recommendation to improve the program is to enhance the accuracy of hand and face recognition so that it can work accurately and effectively. This can be done by doing a series of tests and improving the code to test its accuracy for the user and the program. In terms of new features, we recommend maximizing hand recognition by adding functions using hands in the program, for example, the hand of the user can command the camera to zoom, resize, or rotate the picture before capturing and saving it. This can help the user to have many choices in the program.

Conclusion:

Regarding our project, the Criminal Face Recognition and Alert System with Email Notification this project will help the investigation process when it comes to security. After this project, we learned many libraries that can make these projects even better and we explored many things that make us improve our skills.