

# Steganography

## Project Title:Secure data hiding in image using Steganography

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In [7]: import cv2
import os

# encryption Logic
image_path = r"C:\Users\yashw\Downloads\cat.jpg" # Use raw string for file path
img = cv2.imread(image_path)

msg = input("Enter your secret message: ")
password = input("Enter your password: ")
d = {chr(i): i for i in range(256)}
c = {i: chr(i) for i in range(256)}

height, width, _ = img.shape
index = 0

for char in msg:
    if index < height * width:
        x = index // width
        y = index % width
        img[x, y, 0] = d[char]
        index += 1

cv2.imwrite("ster_cat.jpg", img)

# decryption Logic
os.system("start ster_cat.jpg") # Use 'start' to open the image on Windows
decrypted_msg = ""
index = 0
print("Message encrypted successfully!Saved as steg_cat.jpg")

entered_password = input("Enter your password to decrypt: ")
if password == entered_password:
    for _ in msg:
        if index < height * width:
            x = index // width
            y = index % width
            decrypted_msg += c[img[x, y, 0]]
            index += 1
    print("Decrypted message:", decrypted_msg)
else:
    print("YOU ARE NOT AUTHORIZED")
```

Message encrypted successfully!Saved as steg\_cat.jpg  
Decrypted message: Yashwika

In [ ]: