import cv2

import string

import os

d={}

c={}

for i in range(255):

d[chr(i)]=i

c[i]=chr(i)

#print(c)

x=cv2.imread("1.jpg")

i=x.shape[0]

j=x.shape[1]

print(i,j)

key=input("Enter key to edit(Security Key) : ")

text=input("Enter text to hide : ")

kl=0

tln=len(text)

z=0 #decides plane

n=0 #number of row

m=0 #number of column

l=len(text)

for i in range(l):

x[n,m,z]=d[text[i]]^d[key[kl]]

n=n+1

m=m+1

m=(m+1)%3 #this is for every value of z , remainder will be between 0,1,2 . i.e G,R,B plane will be set automatically.

#whatever be the value of z , z=(z+1)%3 will always between 0,1,2 . The same concept is used for random number in dice and card games.

kl=(kl+1)%len(key)

cv2.imwrite("encrypted\_img.jpg",x)

os.startfile("encrypted\_img.jpg")

print("Data Hiding in Image completed successfully.")

#x=cv2.imread(“encrypted\_img.jpg")

kl=0

tln=len(text)

z=0 #decides plane

n=0 #number of row

m=0 #number of column

ch = int(input("\nEnter 1 to extract data from Image : "))

if ch == 1:

key1=input("\n\nRe enter key to extract text : ")

decrypt=""

if key == key1 :

for i in range(l):

decrypt+=c[x[n,m,z]^d[key[kl]]]

n=n+1

m=m+1

m=(m+1)%3

kl=(kl+1)%len(key)

print("Encrypted text was : ",decrypt)

else:

print("Key doesn't matched.")

else:

print("Thank you. EXITING.")

