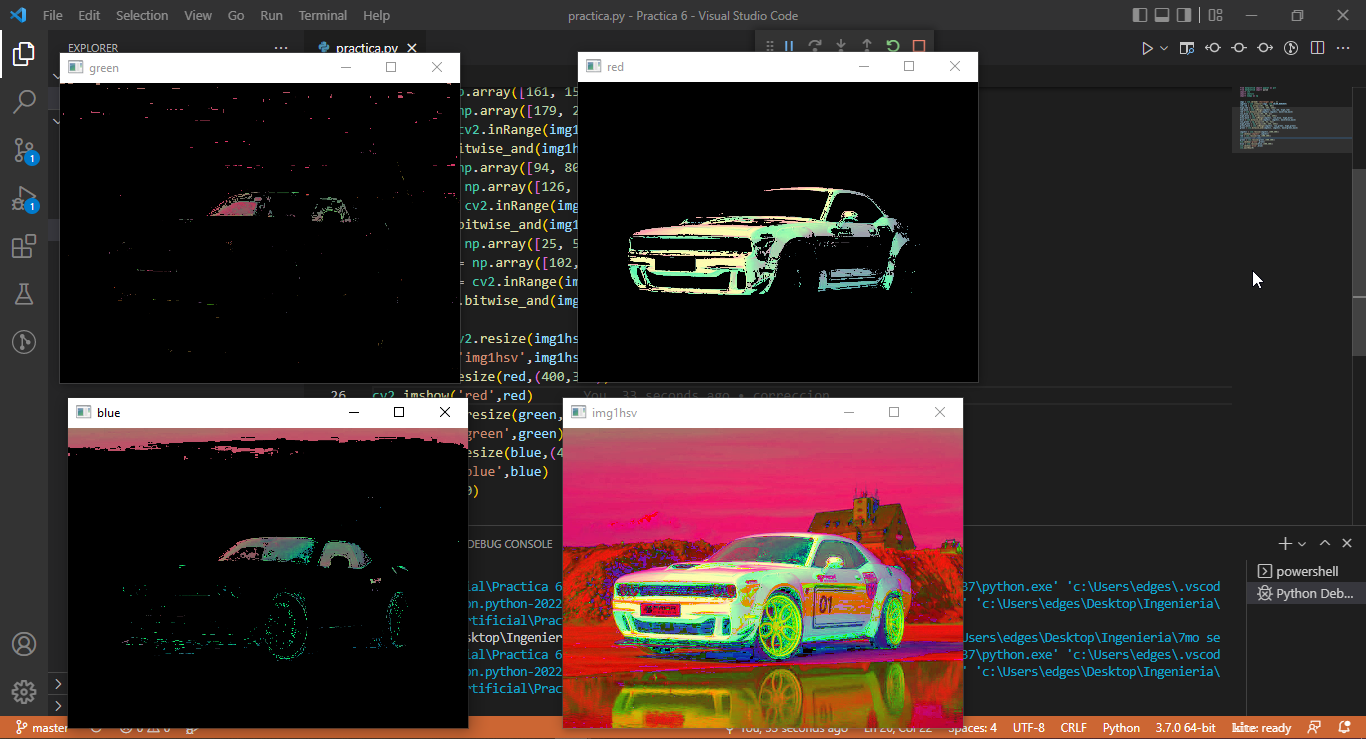
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Manual de usuario practica 7

MANUAL DE USUARIO

# EVIDENCIA



# APP



Esta es la vista principal de la aplicación.

# Git:

<https://github.com/PedroElgueraCeti/Practica-6_VisionArtificial.git>

# Code:

#Pedro Miguel Elguera Mora 19110148

from matplotlib import pyplot as plt

from matplotlib import pylab

import cv2

import imutils

import numpy as np

#img1 = cv2.VideoCapture(7)

img1 = cv2.imread('911.jpg', 1)

img1hsv = cv2.cvtColor(img1, cv2.COLOR\_BGR2HSV)

low\_red = np.array([161, 155, 84])

high\_red = np.array([179, 255, 255])

red\_mask = cv2.inRange(img1hsv, low\_red, high\_red)

red = cv2.bitwise\_and(img1hsv,img1hsv, mask=red\_mask)

kernel2 = np.ones((5,5), np.uint8)

kernel = np.ones((15,15), np.float)/255

opening\_red = cv2.morphologyEx(red, cv2.MORPH\_OPEN, kernel2)

closing\_red = cv2.morphologyEx(red, cv2.MORPH\_CLOSE, kernel2)

low\_blue = np.array([94, 80, 100])

high\_blue = np.array([126, 255, 255])

blue\_mask = cv2.inRange(img1hsv, low\_blue, high\_blue)

blue = cv2.bitwise\_and(img1hsv, img1hsv, mask=blue\_mask)

opening\_blue = cv2.morphologyEx(blue, cv2.MORPH\_OPEN, kernel2)

closing\_blue = cv2.morphologyEx(blue, cv2.MORPH\_CLOSE, kernel2)

low\_green = np.array([40, 52, 72])

high\_green = np.array([110, 255, 255])

green\_mask = cv2.inRange(img1hsv, low\_green, high\_green)

green = cv2.bitwise\_and(img1hsv, img1hsv, mask=green\_mask)

opening\_green = cv2.morphologyEx(green, cv2.MORPH\_OPEN, kernel2)

closing\_green = cv2.morphologyEx(green, cv2.MORPH\_CLOSE, kernel2)

#while(1):

    #\_, frame = img1.read()

img1hsv = cv2.resize(img1,(400,300))

red = cv2.resize(red,(400,300))

opening\_red  = cv2.resize(opening\_red ,(400,300))

closing\_red = cv2.resize(closing\_red,(400,300))

cv2.imshow('red',cv2.cvtColor(red,cv2.COLOR\_HSV2BGR))

cv2.imshow('opening\_red',cv2.cvtColor(opening\_red,cv2.COLOR\_HSV2BGR))

cv2.imshow('closing\_red',cv2.cvtColor(closing\_red,cv2.COLOR\_HSV2BGR))

cv2.waitKey(0)

blue = cv2.resize(blue,(400,300))

opening\_blue  = cv2.resize(opening\_blue ,(400,300))

closing\_blue = cv2.resize(closing\_blue,(400,300))

cv2.imshow('blue',cv2.cvtColor(blue,cv2.COLOR\_HSV2BGR))

cv2.imshow('opening\_blue',cv2.cvtColor(opening\_blue,cv2.COLOR\_HSV2BGR))

cv2.imshow('closing\_blue',cv2.cvtColor(closing\_blue,cv2.COLOR\_HSV2BGR))

cv2.waitKey(0)

green = cv2.resize(green,(400,300))

opening\_green  = cv2.resize(opening\_green ,(400,300))

closing\_green = cv2.resize(closing\_green,(400,300))

cv2.imshow('green',cv2.cvtColor(green,cv2.COLOR\_HSV2BGR))

cv2.imshow('opening\_green',cv2.cvtColor(opening\_green,cv2.COLOR\_HSV2BGR))

cv2.imshow('closing\_green',cv2.cvtColor(closing\_green,cv2.COLOR\_HSV2BGR))

cv2.waitKey(0)