! wget https://raw.githubusercontent.com/richzhang/colorization/caffe/models/colorization\_deploy\_v2.prototxt

! wget https://raw.githubusercontent.com/ShivaShirsath/dl/master/pts\_in\_hull.npy

! wget https://people.eecs.berkeley.edu/~rich.zhang/projects/2016\_colorization/files/demo\_v2/colorization\_release\_v2.caffemodel

from google.colab import files

# Upload the JPG file

uploaded = files.upload()

# Save the file in /content folder with the filename "image.jpg"

for filename in uploaded.keys():

    with open('/content/image.jpg', 'wb') as f:

        f.write(uploaded[filename])

import numpy as np

import cv2

print("loading models.....")

net = cv2.dnn.readNetFromCaffe('./colorization\_deploy\_v2.prototxt','./colorization\_release\_v2.caffemodel')

pts = np.load('./pts\_in\_hull.npy')

class8 = net.getLayerId("class8\_ab")

conv8 = net.getLayerId("conv8\_313\_rh")

pts = pts.transpose().reshape(2,313,1,1)

net.getLayer(class8).blobs = [pts.astype("float32")]

net.getLayer(conv8).blobs = [np.full([1,313],2.606,dtype='float32')]

image = cv2.imread("/content/image.jpg")

scaled = image.astype("float32")/255.0

lab = cv2.cvtColor(scaled,cv2.COLOR\_BGR2LAB)

resized = cv2.resize(lab,(224,224))

L = cv2.split(resized)[0]

L -= 50

net.setInput(cv2.dnn.blobFromImage(L))

ab = net.forward()[0, :, :, :].transpose((1,2,0))

ab = cv2.resize(ab, (image.shape[1],image.shape[0]))

L = cv2.split(lab)[0]

colorized = np.concatenate((L[:,:,np.newaxis], ab), axis=2)

colorized = cv2.cvtColor(colorized,cv2.COLOR\_LAB2BGR)

colorized = np.clip(colorized,0,1)

colorized = (255 \* colorized).astype("uint8")

import matplotlib.pyplot as plt

# Display the image using imshow

plt.imshow(image)

plt.show()

plt.imshow(colorized)

plt.show()

cv2.waitKey(0)