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#Import necessary libraries
import numpy as np
import cv2 as cv
import matplotlib.pyplot as plt
#Mount the google drive
from google.colab import drive
drive.mount('/content/drive')
im1 = cv.imread('/content/drive/MyDrive/images/highlights_and_shadows.jpg', cv.IMREAD_COLOR)#Read the image

assert im1 is not None #Check if the image is loaded

gamma = 0.5
table = np.array([(i/255.0)**(gamma)*255.0 for i in np.arange(0,256)]).astype('uint8')
g_corr = cv.LUT(im1,table) #Apply gamma correction

im1 = cv.cvtColor(im1, cv.COLOR_BGR2RGB) #Convert the image from BGR to RGB
g_corr = cv.cvtColor(g_corr, cv.COLOR_BGR2RGB)

fig, axarr = plt.subplots(3,2,figsize=(10,10))
axarr[0,0].imshow(im1)
axarr[0,0].set_title('Original')
axarr[0,1].imshow(g_corr)
axarr[0,1].set_title('Gamma Corrected') #Plot the original and gamma corrected images

color = ('b', 'g','r')
for i, c in enumerate(color):
  hist_org = cv.calcHist([im1],[i],None,[256],[0,256])
  axarr[1,0].plot(hist_org, color = c)
  axarr[1,0].set_title('Original image Histogram')
  hist_gamma = cv.calcHist([g_corr],[i],None,[256],[0,256])
  axarr[1,1].plot(hist_gamma, color = c) #Plot the histograms
  axarr[1,1].set_title('Gamma corrected image Histogram')

axarr[2,0].plot(table) #Plot gamma correction table
axarr[2,0].set_title('Gamma = 3 ')
axarr[2,0].set_xlim(0,255)
axarr[2,0].set_ylim(0,255)
axarr[2,0].set_aspect('equal')

plt.show()
```

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Drive already mounted at /content/drive; to attempt to forcibly remount, call drive.mount("/content/drive", force_remount=True).
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