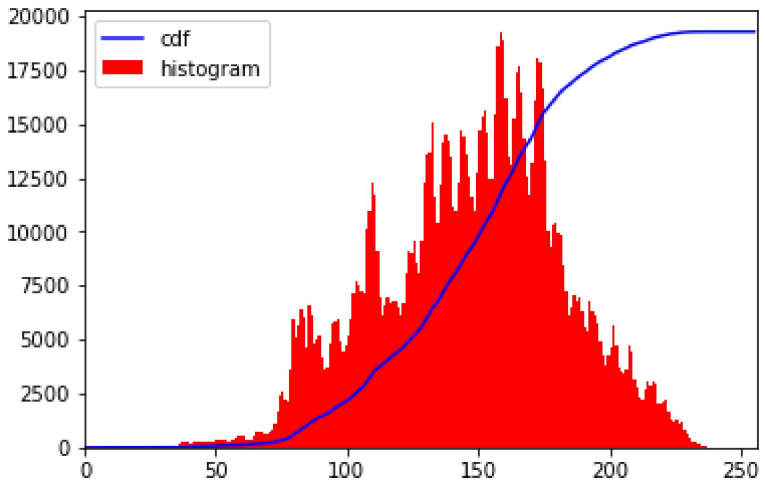
In [1]:
```
import cv2 as cv
import numpy as np
from matplotlib import pyplot as plt
```

In [8]:
```
path = "F:\Image Enhancement DSP  Project/Final.jpeg"
img = cv.imread(path)
```

In [9]:
```
cv.imshow('image',img)
cv.waitKey(0)
cv.destroyAllWindows()
```

In [10]:
```
hist,bins = np.histogram(img.flatten(),256,[0,256])
cdf = hist.cumsum()
cdf_normalized = cdf * float(hist.max()) / cdf.max()
plt.plot(cdf_normalized, color = 'b')
plt.hist(img.flatten(),256,[0,256], color = 'r')
plt.xlim([0,256])
plt.legend(('cdf','histogram'), loc = 'upper left')
plt.show()
```



In [11]:
```
R, G, B = cv.split(img)

output1_R = cv.equalizeHist(R)
output1_G = cv.equalizeHist(G)
output1_B = cv.equalizeHist(B)

equ = cv.merge((output1_R, output1_G, output1_B))
```

In [12]:
```
cv.imshow('equ.png',equ)
cv.waitKey(0)
cv.destroyAllWindows()
```

In [13]:
```
hist,bins = np.histogram(equ.flatten(),256,[0,256])
cdf = hist.cumsum()
cdf_normalized = cdf * float(hist.max()) / cdf.max()
plt.plot(cdf_normalized, color = 'b')
plt.hist(equ.flatten(),256,[0,256], color = 'r')
plt.xlim([0,256])
plt.legend(('cdf','histogram'), loc = 'upper left')
plt.show()
```