

Source Code :

```
import cv2
import numpy as np

# Image negative
img = cv2.imread('practical_2.jpg', 0)

m, n = img.shape

L = img.max()

img_neg = L - img

cv2.imwrite('practical_2_Negative.png', img_neg)

T = 150

img_thresh = np.zeros((m, n), dtype=int)

for i in range(m):
    for j in range(n):
        if img[i, j] < T:
            img_thresh[i, j] = 0
        else:
            img_thresh[i, j] = 255

cv2.imwrite('practical_2_Thresh.png', img_thresh)
T1 = 100
T2 = 180

img_thresh_back = np.zeros((m, n), dtype=int)

for i in range(m):
    for j in range(n):
        if T1 < img[i, j] < T2:
            img_thresh_back[i, j] = 255
        else:
            img_thresh_back[i, j] = img[i, j]

cv2.imwrite('practical_2_Thresh_Back.png', img_thresh_back)
```

Output :



Original Image



Negative image



Image with threshold (150)



Image with threshold (180)