

Implement a Segmentation algorithm using Open CV to segment the given input image based on the given threshold values.

CODE:

```
import cv2

# Load the image
image = cv2.imread(r"C:\Users\harik\Downloads\CV LAB\nature.jpeg")
gray = cv2.cvtColor(image, cv2.COLOR_BGR2GRAY)

# Define the threshold value
threshold_value = 127 # You can change this based on your requirement
max_value = 255

# Apply binary thresholding
_, segmented = cv2.threshold(gray, threshold_value, max_value, cv2.THRESH_BINARY)

# Display the original and segmented images
cv2.imshow('Original Image', image)
cv2.imshow('Segmented Image', segmented)

# Save the segmented image
cv2.imwrite('segmented_output.jpg', segmented)

cv2.waitKey(0)
cv2.destroyAllWindows()
```

OUTPUT:

