University of the Punjab

Gujranwala Campus

Department of Information Technology

Computer Vision

Assignment

Submitted by:

Name: Rabia Saleem

Roll #BIT21045

Section: BSIT (Morning)

Semester: 7th

Submitted to:

Ms Fouqia Zafeer

OTSU METHOD FOR THRESHOLDING:

```
% Read the input image from file
I = imread('sun.jpg');


% Display the original input image
figure('Name', 'Original Image'); % Create a new figure window
imshow(I); % Show the image
title('Original Image'); % Set title for the figure


% Analyze the histogram of the image
figure('Name', 'Histogram'); % Create a new figure window for histogram
imhist(I); % Display the histogram of the image
title('Image Histogram'); % Set title for the histogram plot

% Compute the optimal threshold level using Otsu's method
level = graythresh(I);


% Convert the grayscale image to a binary image using the threshold
BW = im2bw(I, level);

% Display the binary (black and white) image after thresholding
figure('Name', 'Output Image'); % Create a new figure window for output image
imshow(BW); % Show the thresholded binary image
title('Output Image'); % Set title for the output image
```

RESULTS:

Figure # 1

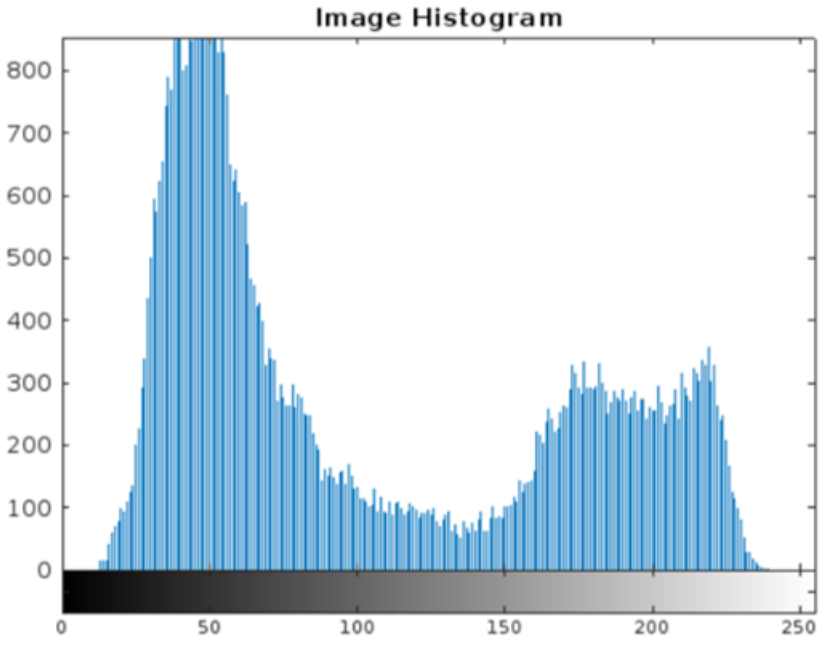

Figure # 2

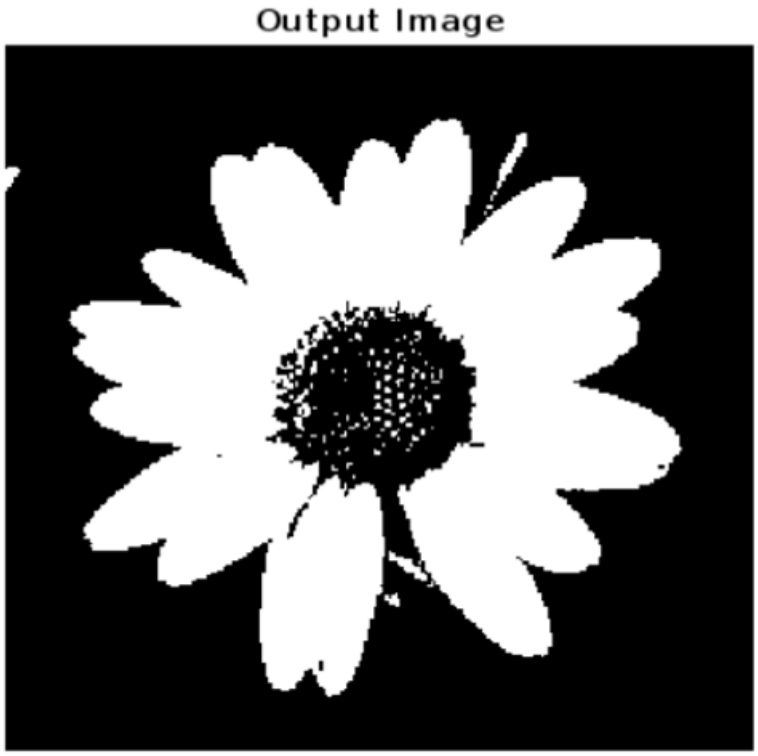

Figure # 3