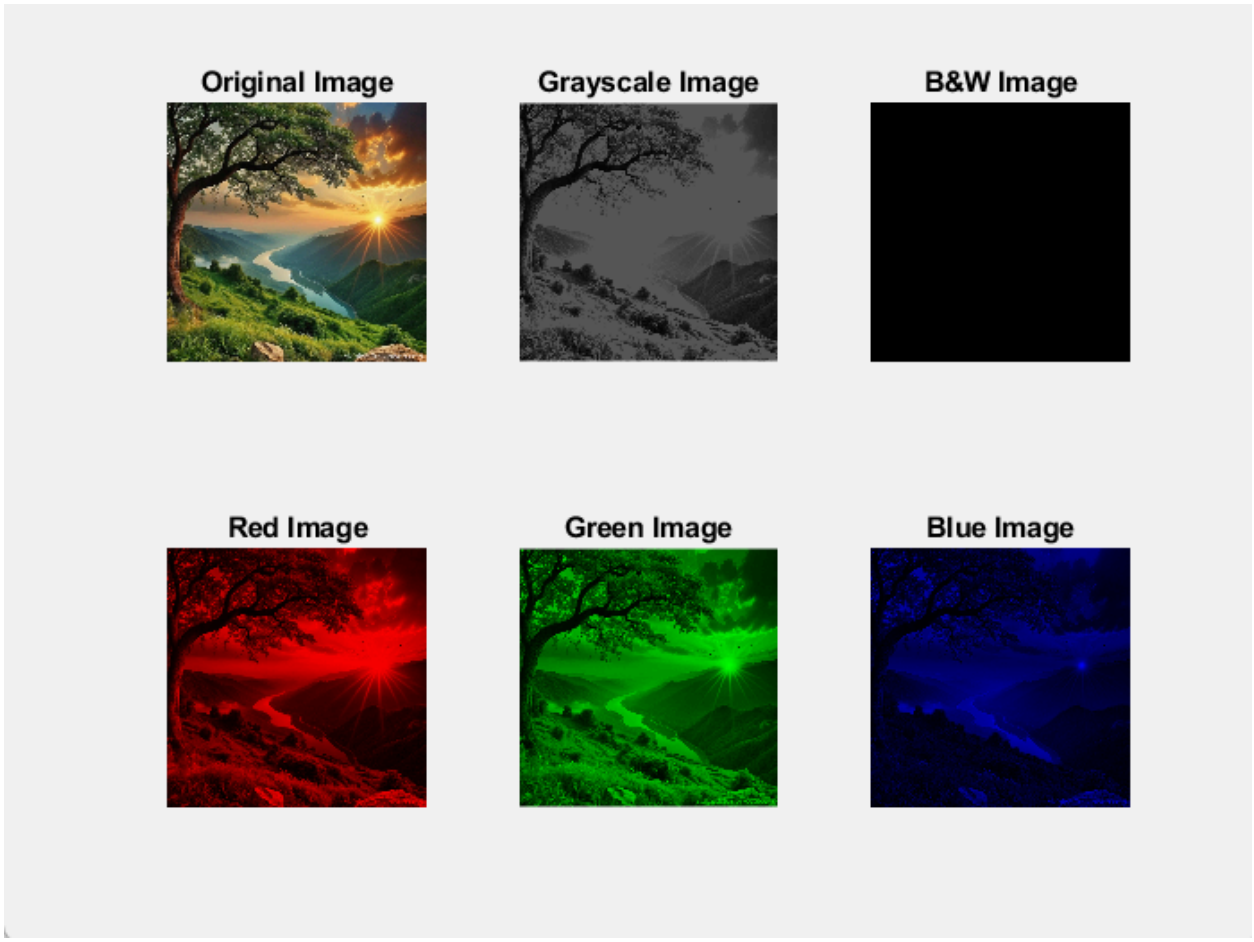
TOPIC – Histogram equalization

CODE —

```
clc;
clear;
close all;
img =
imread('https://imgcdn.stablediffusionweb.com/2024/9/6/2fcfe7ed-36f3-4b43-af73-58e30254e515.jpg');
R = img(:,:,1);
G = img(:,:,2);
B = img(:,:,3);
gray = (R + G + B) / 3;
px_sum = sum(gray(:));
thresh = px_sum / (144 * 349);
bw = gray > thresh;
blue = img;
blue(:,:,1) = 0;
blue(:,:,2) = 0;
green = img;
green(:,:,1) = 0;
green(:,:,3) = 0;
red = img;
red(:,:,2) = 0;
red(:,:,3) = 0;
subplot(2, 3, 1);
imshow(img);
title("Original");
subplot(2, 3, 2);
imshow(gray);
title("Grayscale");
subplot(2, 3, 3);
imshow(bw);
title("B&W");
subplot(2, 3, 4);
imshow(red);
title("Red");
subplot(2, 3, 5);
imshow(green);
title("Green");
subplot(2, 3, 6);
imshow(blue);
title("Blue");
```

INPUT –

OUPUT –


Original Image
Grayscale Image
B&W Image
Red Image
Green Image
Blue Image