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**Assignment 1**

***RESIZE***

I = imread('Christ.png');

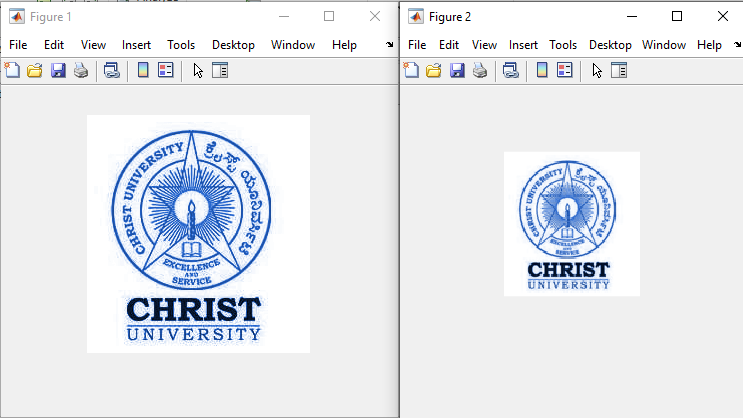
J = imresize(I, 0.5);

figure

imshow(I);

figure

imshow(J);



I = imread('Christ.png');

J = imresize(I, 0.4,'nearest');

figure

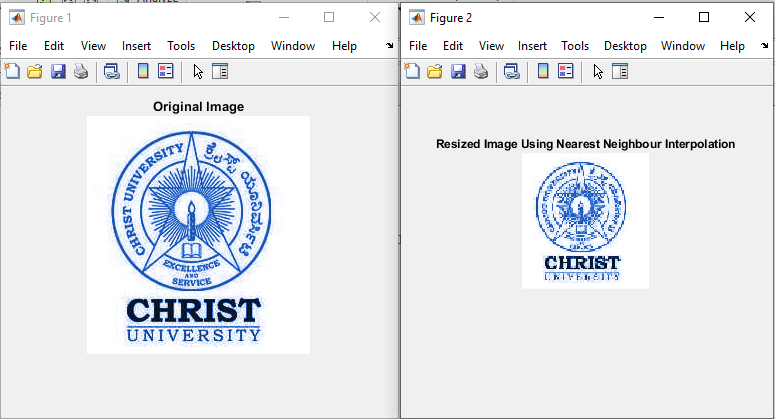
imshow(I)

title("Original Image")

figure

imshow(J)

title("Resized Image Using Nearest Neighbour Interpolation")



***Color Image to GRAY image***

Color\_image = imread("Pepper.jpg");

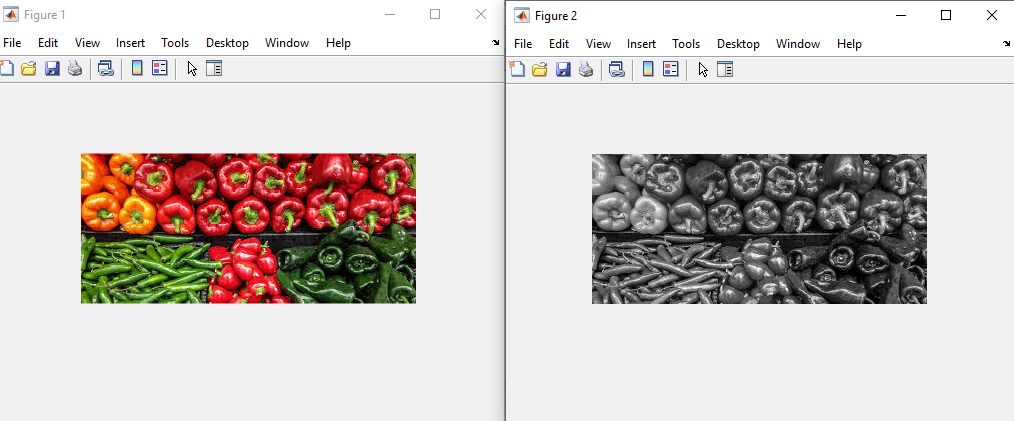
Gray\_image = rgb2gray(Color\_image);

figure

imshow(Color\_image)

figure

imshow(Gray\_image)



***Gray Image to binary image***

Gray\_image = rgb2gray(Color\_image);

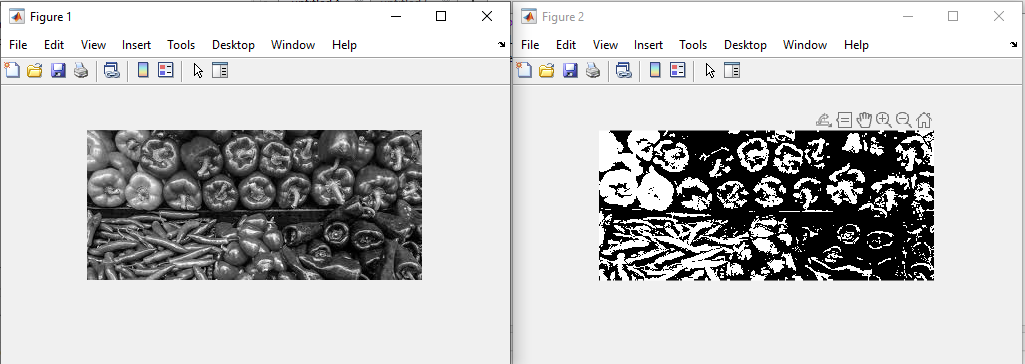
Binary\_image = imbinarize(Gray\_image);

figure

imshow(Gray\_image)

figure

imshow(Binary\_image)



***Rotation of Binary, Gray scale, color image***

Color\_image = imread("Pepper.jpg");

Gray\_image = rgb2gray(Color\_image);

Binary\_image = imbinarize(Gray\_image);

Rotated\_image1 = imrotate(Color\_image, 45);

Rotated\_image2 = imrotate(Gray\_image,180);

Rotated\_image3 = imrotate(Binary\_image,90);

figure

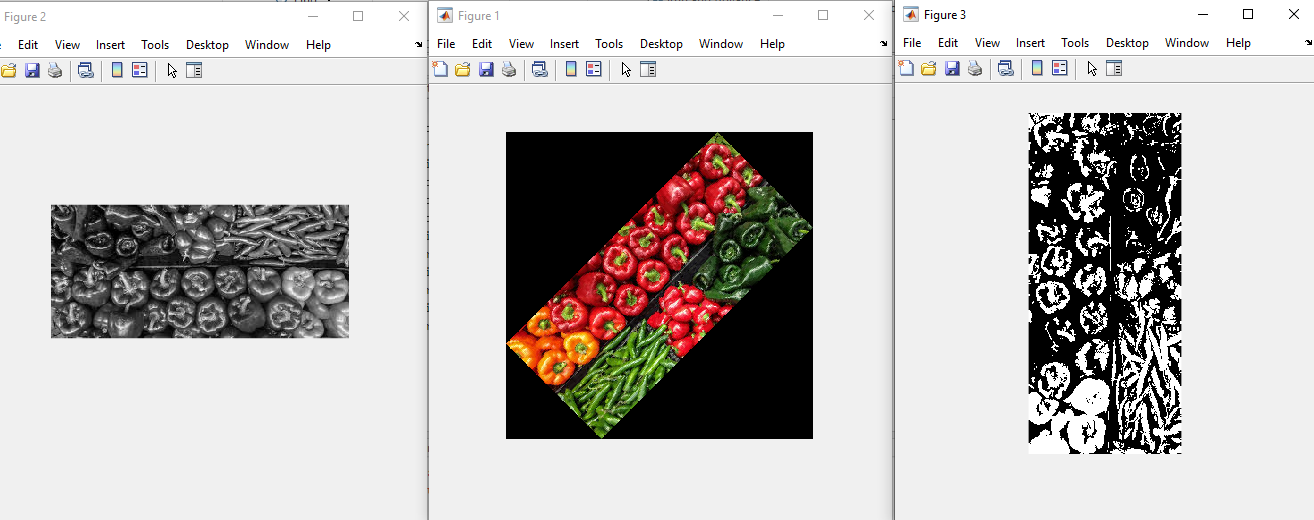
imshow(Rotated\_image1)

figure

imshow(Rotated\_image2)

figure

imshow(Rotated\_image3)



***Histogram Equalization***

Color\_image = imread("Pepper.jpg");

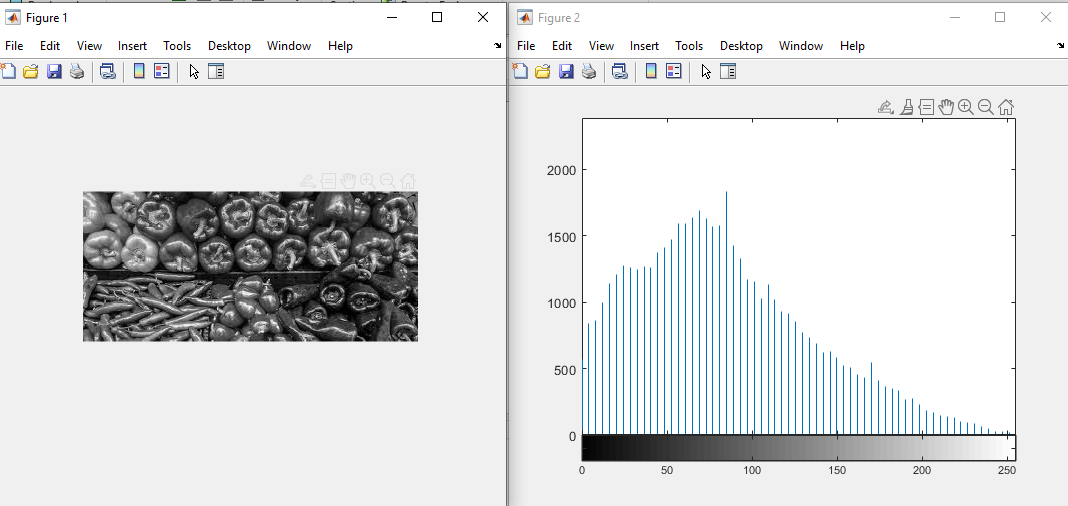
Gray\_image = rgb2gray(Color\_image);

figure

imshow(Gray\_image)

figure

imhist(Gray\_image,64)



***Image filtering***

Color\_image = imread("Pepper.jpg");

Blurred\_image = imgaussfilt(Color\_image,2);

figure

imshow(Color\_image)

figure

imshow(Blurred\_image)

