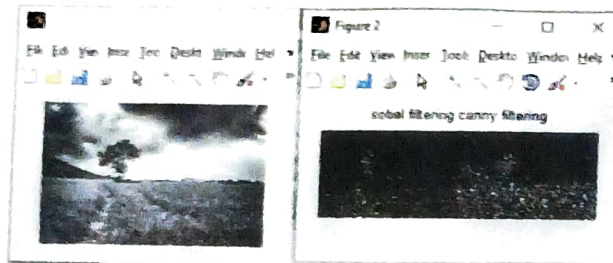


Output

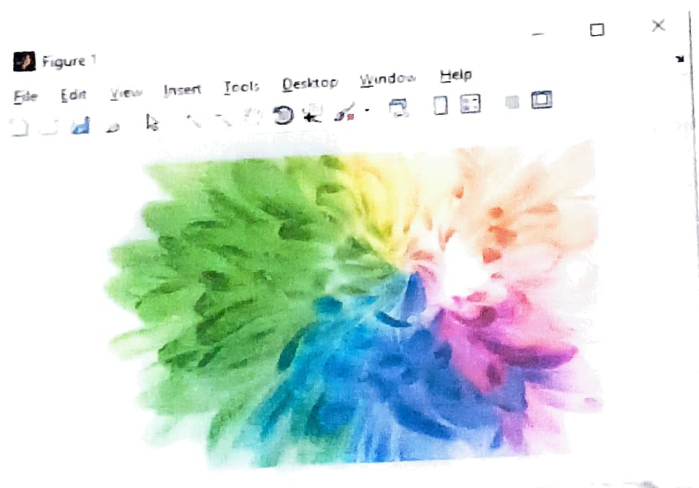
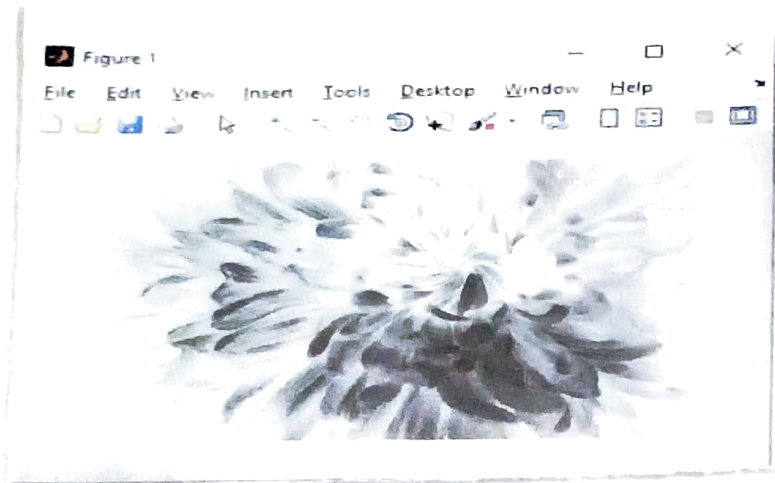


Experiment No:- 8

Objective:- Edge detection using Sobel & canny.

Program:-

```
I = imread('img.jpeg');  
gray = rgb2gray(I);  
figure,  
imshow(gray);  
b1 = edge(gray, 'sobel');  
b2 = edge(gray, 'canny');  
figure,  
imshowpair(b1, b2, 'montage');  
title('sobel filtering canny filtering');
```



Experiment-9

Object:- WAP to implement complement of image

- Colorful image
- Gray image

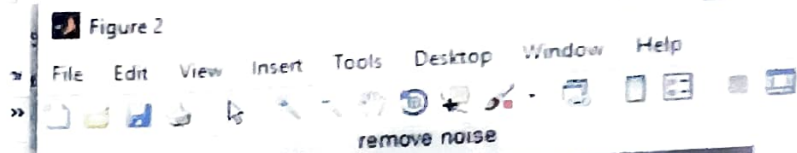
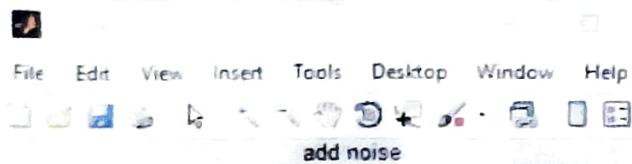
Program:-

% Colorful Image %

```
img = imread('abc.jpg');  
comp = imcomplement(img);  
imshow(comp)
```

% Gray Image %

```
img = imread('abc.jpg');  
comp = imcomplement(img);  
PM = rgb2gray(comp);  
imshow(PM);
```



Experiment - 10

Object:- WAP to implement add noise
& remove noise from image
by noise filter

Program:-

```
a = imread('briyank.jpg');  
b = rgb2gray(a);  
noisyimg = imnoise(b, 'Salt & pepper');  
figure, k = medfilt2(noisyimg);  
imshow(noisyimg);  
title('add noise');  
  
figure,  
imshow(k)  
title('remove noise');
```

File

File

File

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Original



File Edit View Insert Tools Desktop Window Help



eroded image



File Edit View Insert Tools Desktop Window Help



dilated image



Experiment-11

Object:- WAP to implement erosion, dilation.

Program:-

```
A = imread('img.jpg');  
sel = strel('disk',11);  
er = imerode(A, sel);  
dilate = imdilate(A, sel);
```

% Displaying element

figure,

imshow(A);

title('Original image');

figure,

imshow(er);

~~title~~ title('eroded image');

figure,

imshow(dilate);

title('dilated image');

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File Edit View Insert Format Desktop Window Help

Original image



File Edit View Insert Format Desktop Window Help

after opening image



File Edit View Insert Format Desktop Window Help

after closing image



Experiment - 12

Object:- WAP to implement open & close operation.

Program:-

```
u = imread('image.jpg');  
sel = strel('line', 7, 7);  
io = imopen(u, sel);  
figure,  
imshow(u);  
title('Original image');  
figure,  
imshow(io);  
title('after opening image');  
sell = strel('disk', 15);  
ie = imclose(u, sell);  
figure,  
imshow(ie);  
title('after closing image');
```

Ans