PRACTICAL No. 7

AIM:- Perform threshold operation, perform gray level slicing without background.

Install Image Processing and Signal Processing packages and restart scilab.

Run this command on console: atomsRemove('scicv')

Restart scilab

And run code

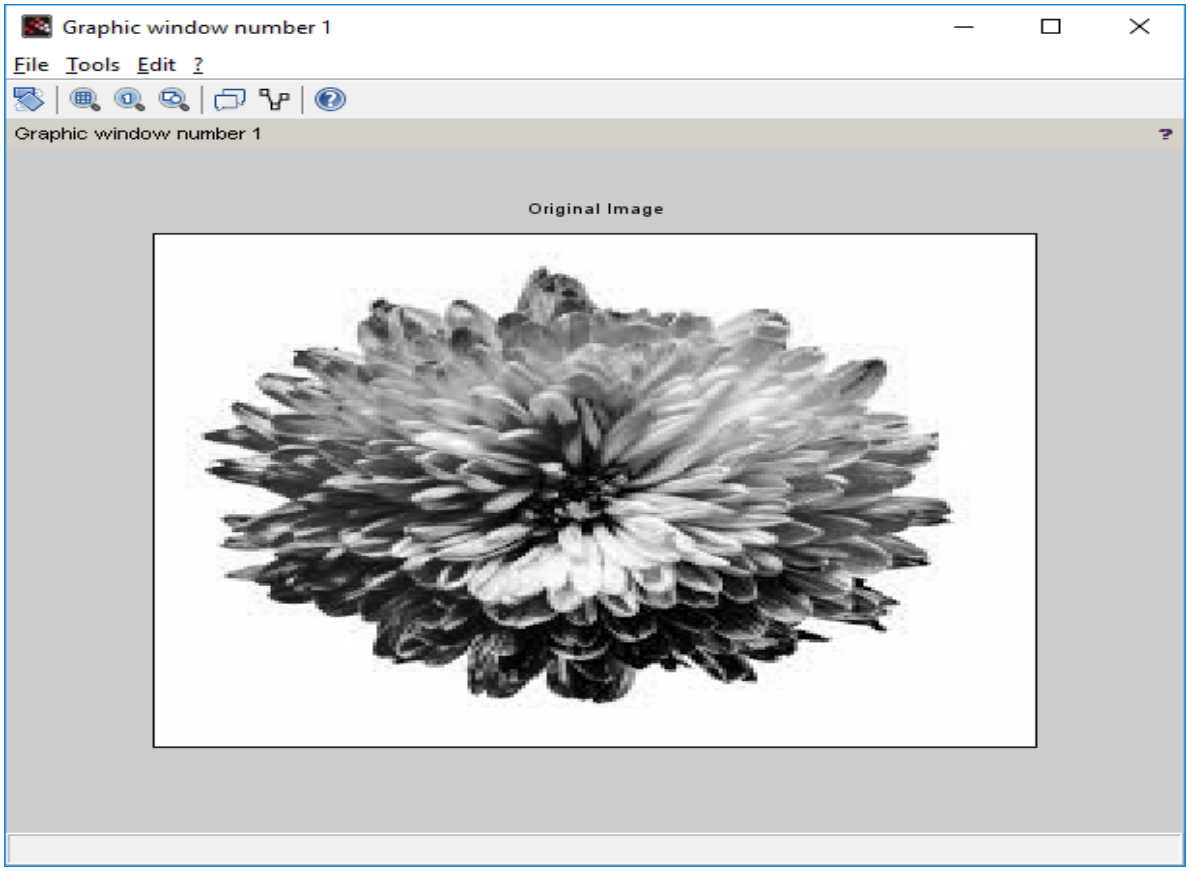
Threshold Operation

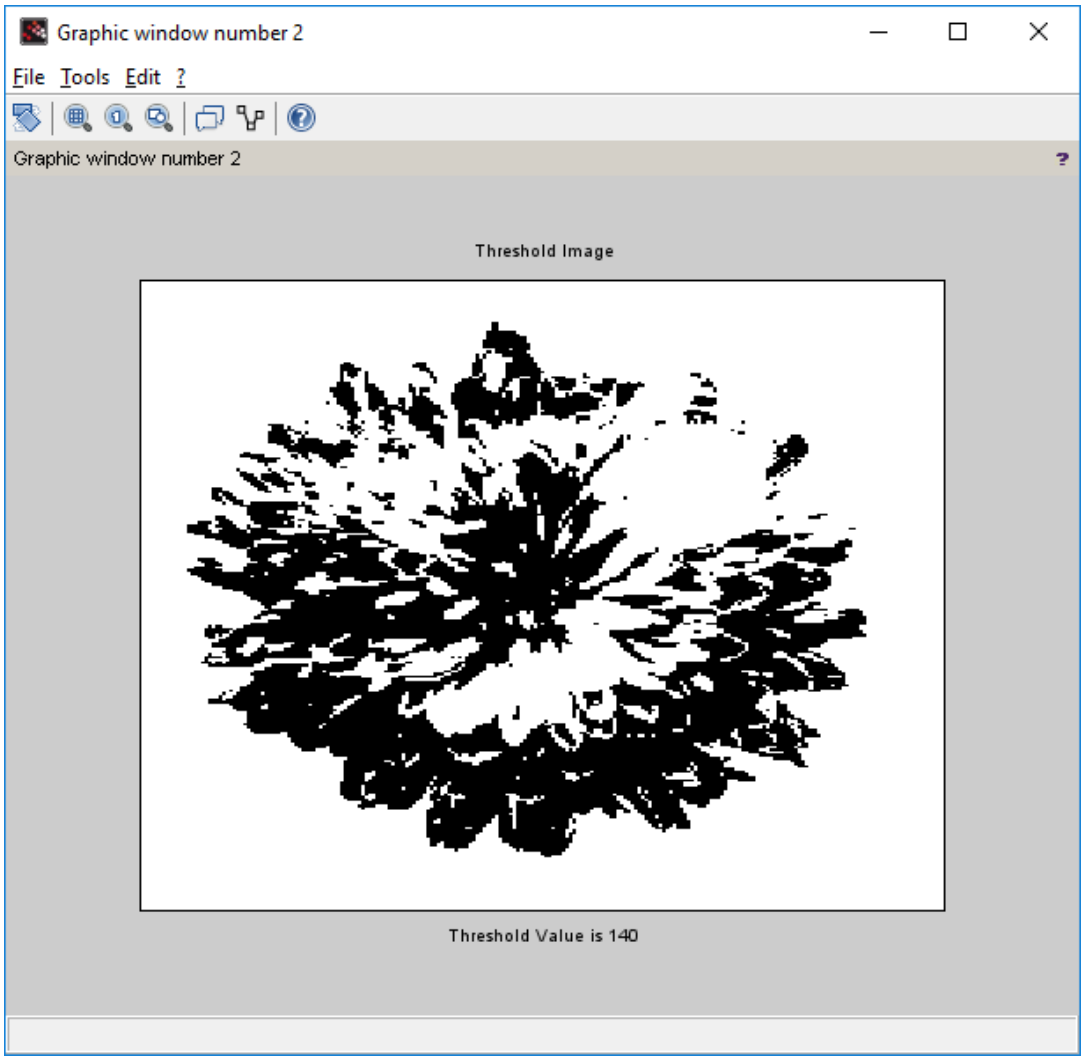
Code:-

```
clc;
close;
a = imread('C:\Users\ADMIN\Desktop\flower.jpg');
a = rgb2gray(a);
[m n] = size(a);
t = input('Enter threshold parameter: ');
for i = 1:m
   for j = 1:n
      if(a(i,j)<t)
         b(i,j)=0;
      else
         b(i,j) =255;
      end
   end
end
figure(1)
imshow(a);
title('Original Image')
figure(2)
imshow(b);
title('Threshold Image')
xlabel(sprintf('Threshold Value is %g ',t))
```

Output:

Enter threshold parameter: 140


Graphic window number 1
File Tools Edit ?
Graphic window number 1
Original Image

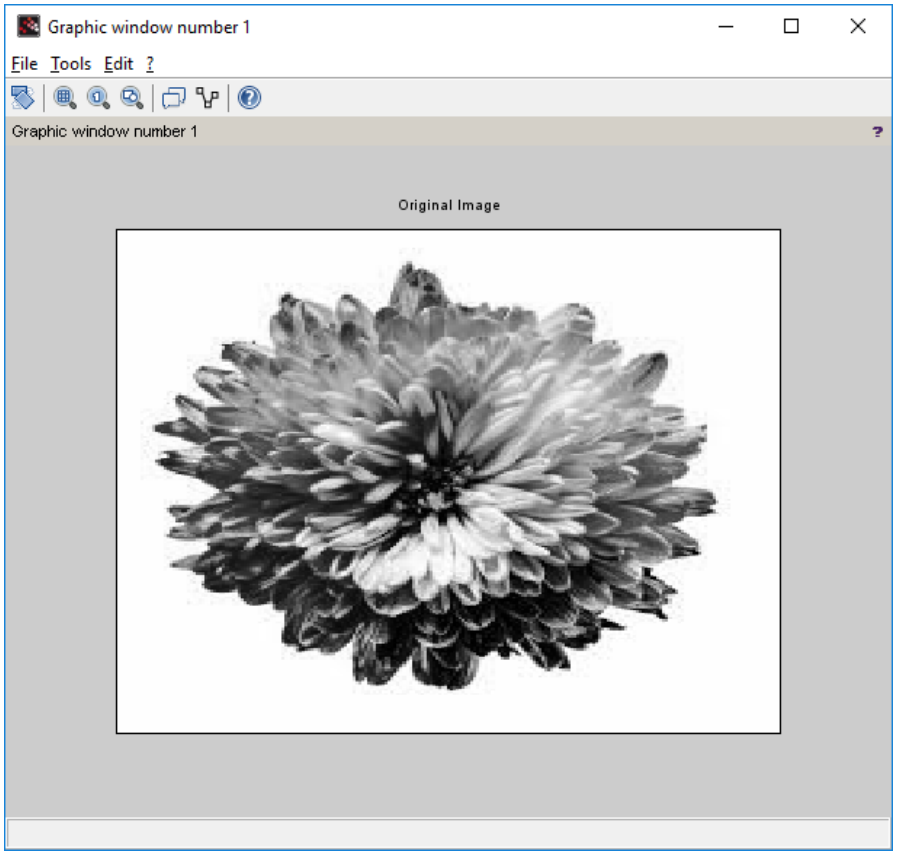

Graphic window number 2
File Tools Edit ?
Graphic window number 2
Threshold Image
Threshold Value is 140

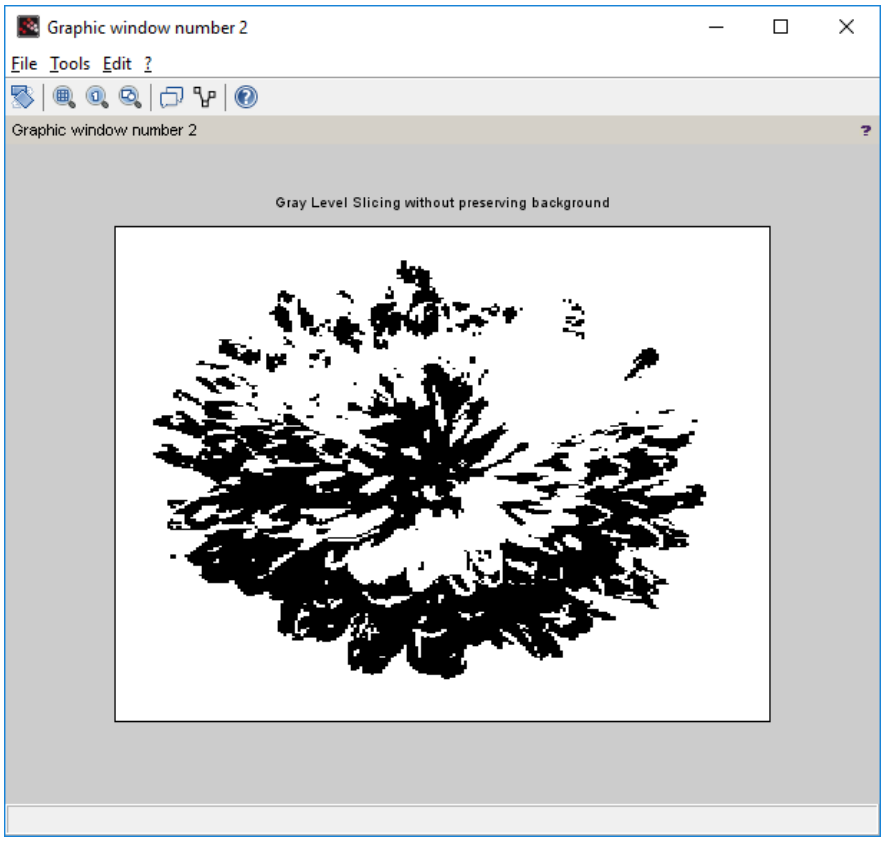
Gray Level Scaling without background.

Code:-

```
clc ;
x = imread('C:\Users\ADMIN\Desktop\flower.jpg');
x = rgb2gray(x);
y = double(x);
[m,n]= size(y);
L = max(max(x));
a = round(L/2) ;
b = L;
for i =1: m
   for j =1: n
      if(y(i,j)>=a & y(i,j)<=b)
         z(i,j) = L;
      else
         z(i,j)=0;
      end
   end
end
z = uint8(z);
figure(1)
imshow(x);
title('Original Image')
figure(2)
imshow(z);
title('Gray Level Slicing without preserving background')
```

Output:


Graphic window number 1
File Tools Edit ?
Graphic window number 1
Original Image


Graphic window number 2
File Tools Edit ?
Graphic window number 2
Gray Level Slicing without preserving background