

## LAB:06

### IMREAD & IMSHOW:

```
>> img=imread('flower.jpg');  
>> imshow(img)
```

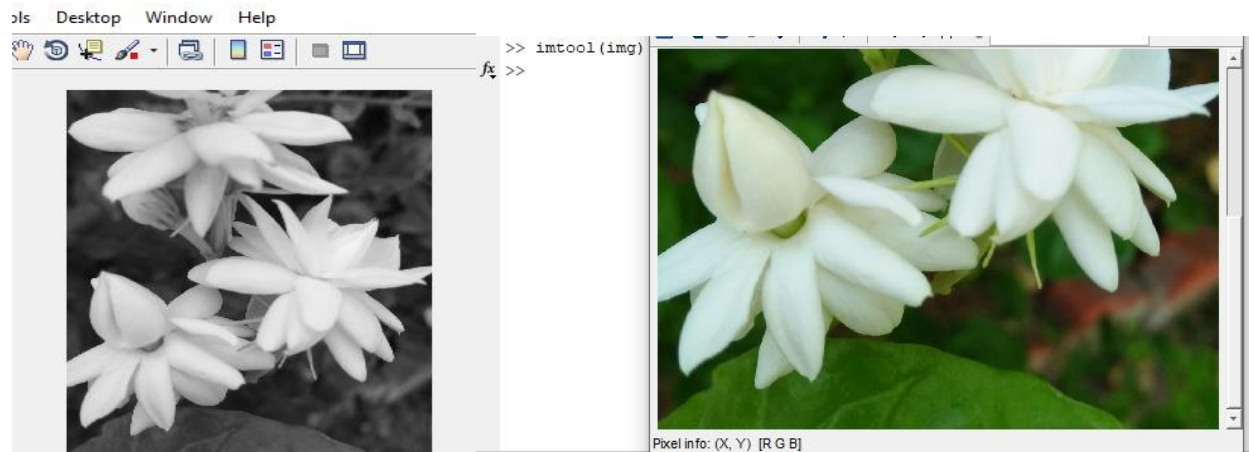


| Current Folder |                   |
|----------------|-------------------|
| Name ^         |                   |
| flower.jpg     |                   |
| Details        |                   |
| Workspace      |                   |
| Name           | Value             |
| image          | 1840x256x3 uint8  |
| img            | 2167x1782x3 uint8 |

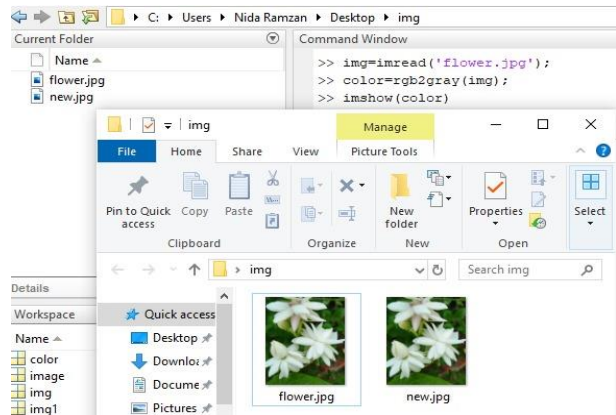
| Command Window  |  |
|---|--|
| 173 172 172 169 167 167 169 172 172 173 173 172 171 170 169 169 168<br>173 173 171 170 168 167 168 169 171 172 169 169 169 169 169 168 168<br>174 174 171 170 169 168 169 170 171 172 169 169 169 169 169 168 168<br>174 174 171 171 170 170 170 170 171 172 169 169 169 169 168 168 168<br>175 175 171 171 171 170 171 171 171 169 169 169 169 168 168 168<br>175 175 170 170 170 170 170 170 170 169 169 169 169 168 168 167<br>175 175 171 171 171 170 170 170 170 169 169 169 169 168 168 167<br>175 175 172 171 171 171 171 171 171 169 169 169 169 168 167 167<br>174 174 173 172 172 171 171 171 171 169 169 169 169 168 167 167<br>175 175 170 171 172 172 172 171 170 169 168 168 167 167 167 167<br>175 175 171 172 172 173 173 172 171 170 169 169 168 168 167 167<br>176 175 173 173 173 173 173 172 171 171 170 169 169 168 168 168<br>177 177 174 174 174 174 173 172 172 171 170 170 170 169 169 168<br>178 178 175 175 175 174 174 173 172 171 171 171 171 170 169 169<br>178 178 176 176 175 175 175 175 175 175 172 172 173 172 172 170 169<br>177 177 178 176 177 175 177 175 178 176 174 173 173 173 172 171 170<br>177 178 180 178 180 179 181 179 179 177 176 175 176 176 175 174 173<br>178 178 179 179 178 179 180 180 180 178 178 175 176 176 174 173<br>179 178 179 178 178 178 179 180 180 179 178 176 176 176 176 175 174<br>179 179 180 179 178 178 179 180 180 180 179 176 176 176 176 175 174<br>179 179 181 181 180 179 180 181 181 180 179 176 176 176 176 175 175<br>179 178 182 181 180 180 181 181 181 180 179 176 176 176 176 175<br>178 178 181 180 180 180 181 181 181 180 180 179 178 178 178 176 176 |  |

### RGB2GRAY

```
Command Window  
>> img=imread('flower.jpg');  
>> color=rgb2gray(img);  
>> imshow(color)
```




## IMWRITE & QUALITY:



The screenshot shows the MATLAB environment. The 'Current Folder' pane on the left displays a folder named 'img' containing 'flower.jpg' and 'new.jpg'. The 'Command Window' on the right contains the following code:

```
>> img=imread('flower.jpg');  
>> color=rgb2gray(img);  
>> imshow(color)
```

Below the command window, two small image thumbnails are shown: 'flower.jpg' and 'new.jpg'. The 'flower.jpg' thumbnail shows a cluster of white flowers with green leaves. The 'new.jpg' thumbnail shows the same image but with a different appearance, possibly due to the quality setting.



Two side-by-side images of white flowers. The left image is the original 'flower.jpg'. The right image is the result of writing the image back to 'flower.jpeg' with a quality of 10, showing significant compression artifacts.

```
>> imwrite(img,'flower.jpeg','quality',10);  
>> image=imread('flower.jpeg');  
>> subplot(1,2,1),imshow(img); subplot(1,2,2),imshow(image);  
f. <<
```

## IMNOISE:

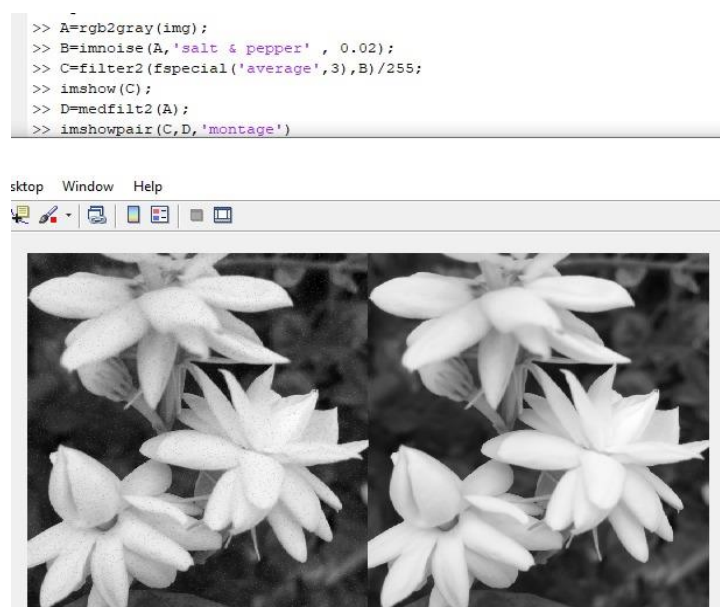


The image shows a cluster of white flowers with green leaves, heavily corrupted by salt and pepper noise. The noise is visible as small black and white pixels scattered across the image.

```
>> img1=imnoise(img,'salt & pepper' , 0.02);  
>> imshow(img1)
```

## FILTER:

```
>> A=rgb2gray(img);  
>> B=imnoise(A,'salt & pepper' , 0.02);  
>> C=filter2(fspecial('average',3),B)/255;  
>> imshow(C);  
>> D=medfilt2(A);  
>> imshowpair(C,D,'montage')
```



The screenshot shows the MATLAB interface with a window titled 'sktop Window Help'. The window displays a montage of two images side-by-side. The left image is the original grayscale image of the flowers. The right image is the result of applying a median filter to the noisy image, showing significant improvement in image quality with reduced noise.

**EDGE:**



# IMSHAPEN

