

Nama **Panji Iman Baskoro**

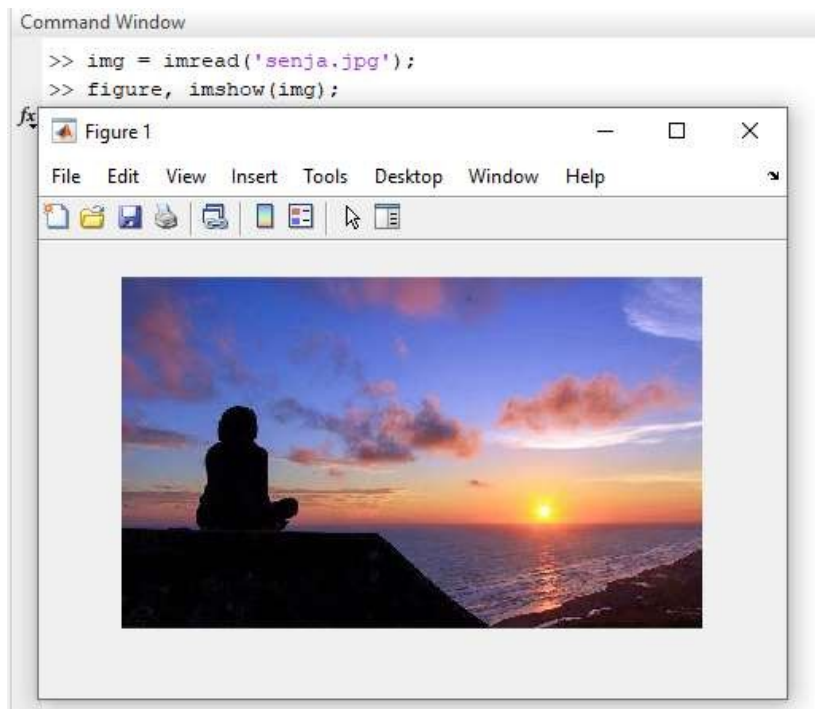
NRP **: 171111023**

Matakuliah : Pengolahan Citra Digita (A).

TUGAS PCD Image Restoration

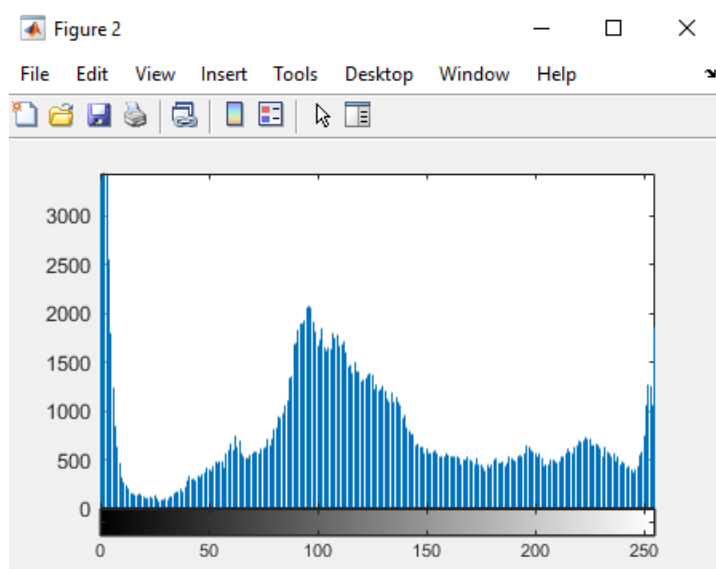
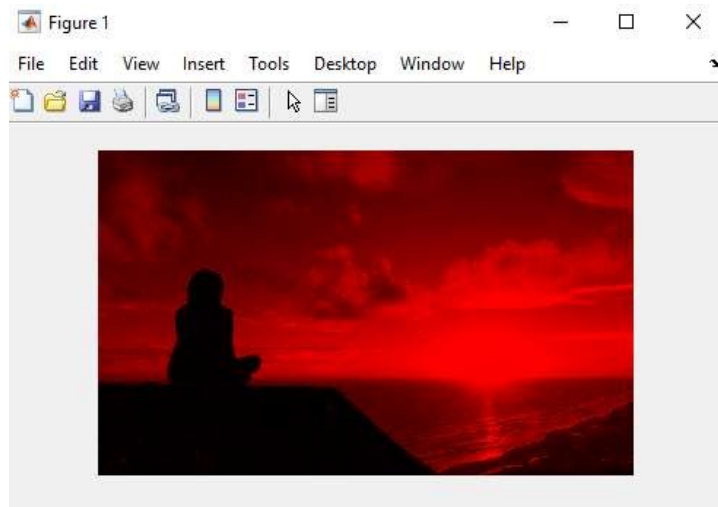
1. Carilah gambar/citra berwarna, tunjukkanlah histogram untuk masing-masing komponen warna (Red, Green dan Blue)

- Gambar/ Citra Asli



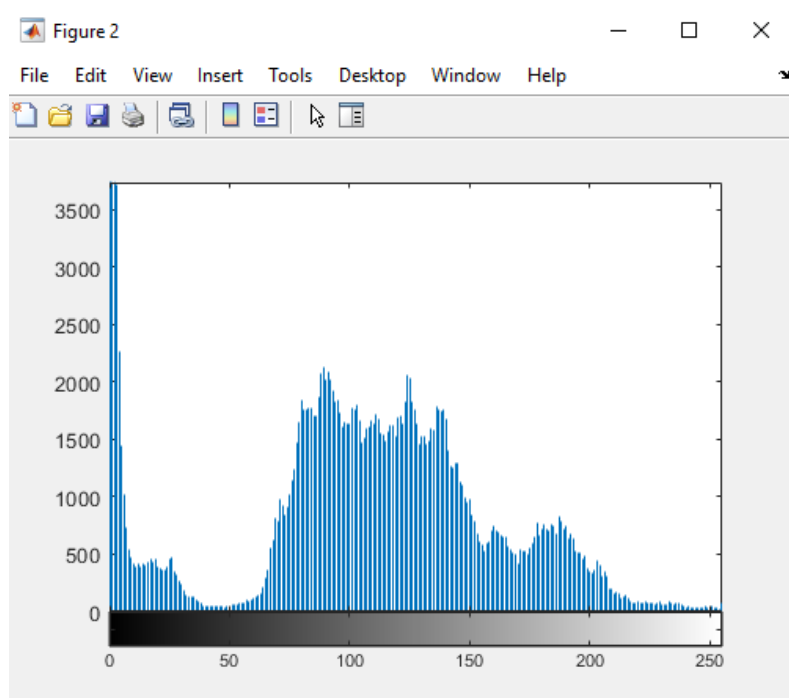
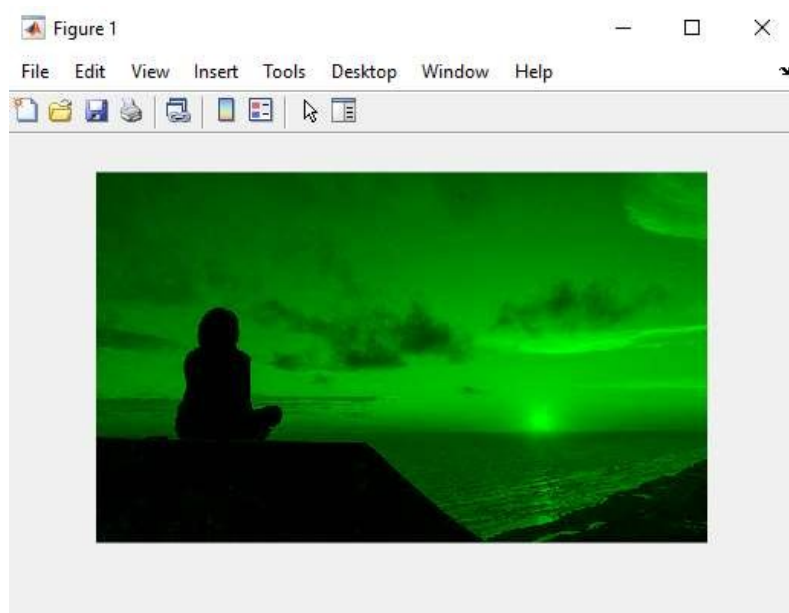
- Red

```
>> img = imread('senja.jpg');  
>> figure, imshow(img);  
>> imgR = img(:,:,1);  
imgG = img(:,:,2);  
imgB = img(:,:,3);  
figure, imshow(cat(3, imgR, imgG.*0, imgB.*0));  
>> figure, imhist(imgR);
```



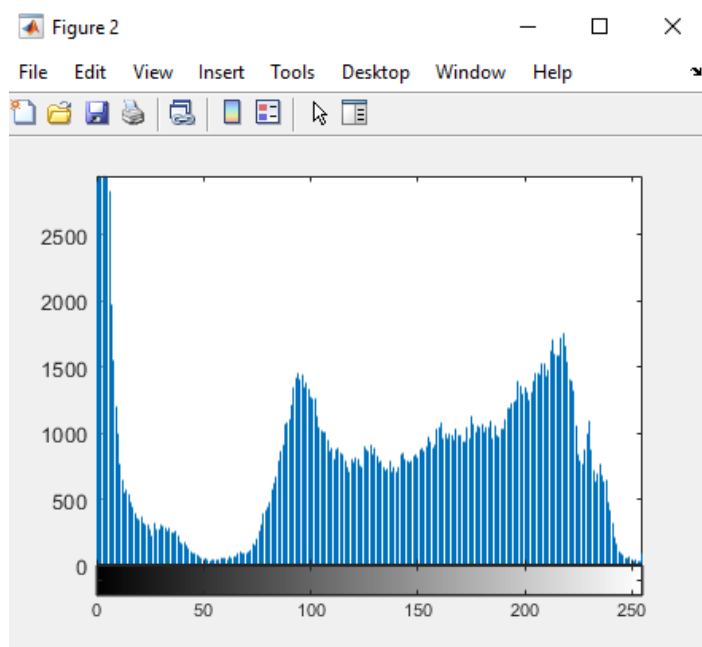
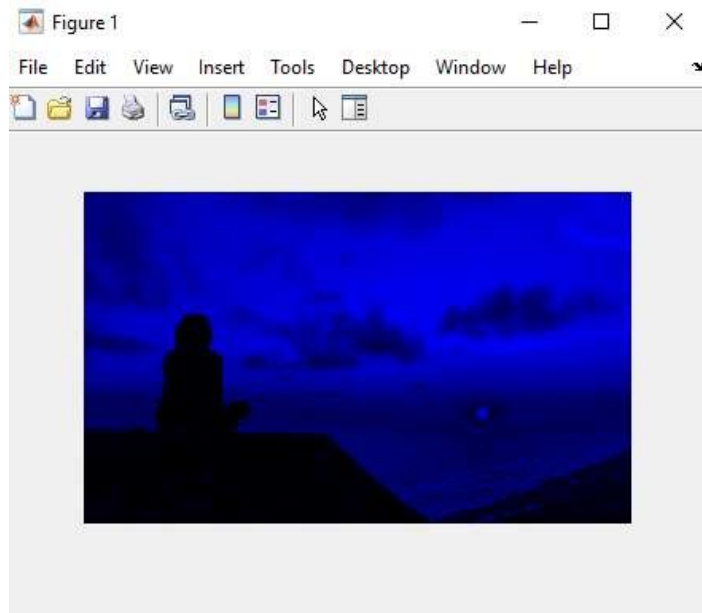
- Green

```
>> figure,imshow(cat(3,imgR.*0, imgG, imgB.*0));  
figure,imhist(imgG);
```



- Blue

```
>> figure,imshow(cat(3,imgR.*0,imgG.*0, imgB));
figure,imhist(imgB);
```

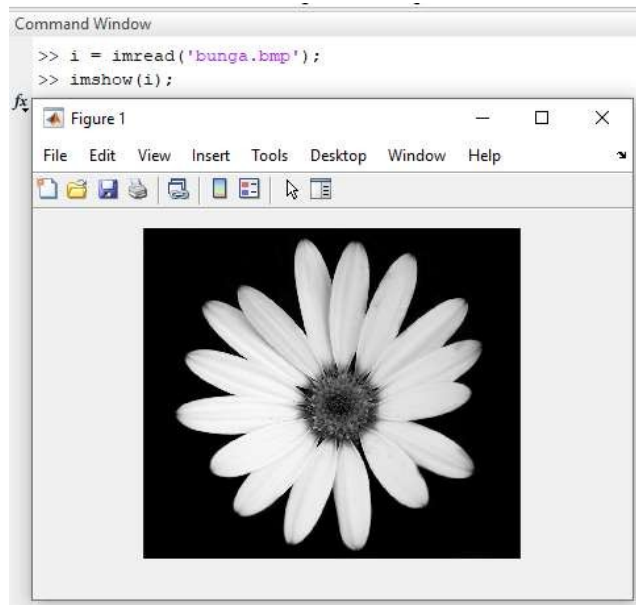


2. Carilah gambar grayscale, lakukan proses restorasi untuk citra yang terkena noise dengan jenis noise :
 - a. Gaussian
 - b. Salt & Pepper
 - c. Speckle

Tampilkan output dari citra sebelum dan sesudah perbaikan citra, serta tampilkan coding Matlab untuk melakukan proses perbaikan citra tersebut.

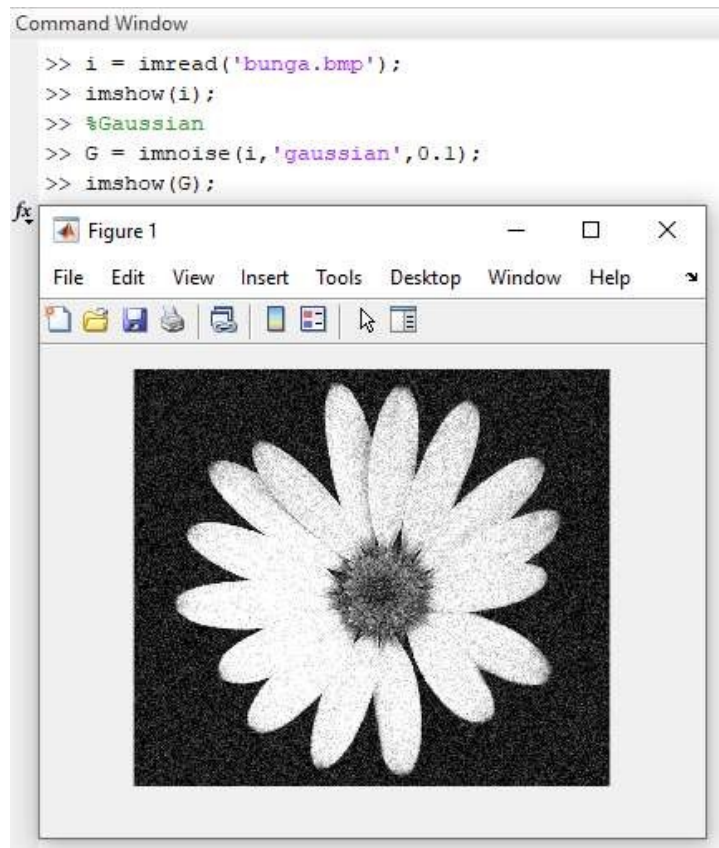
Jawab :

- Gambar Asli

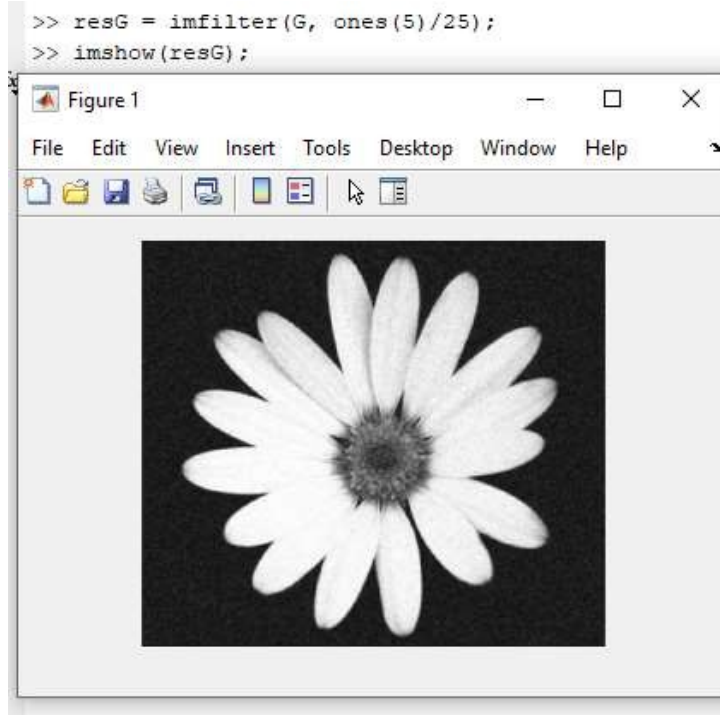


- a. Gaussian

- Noise Gaussian



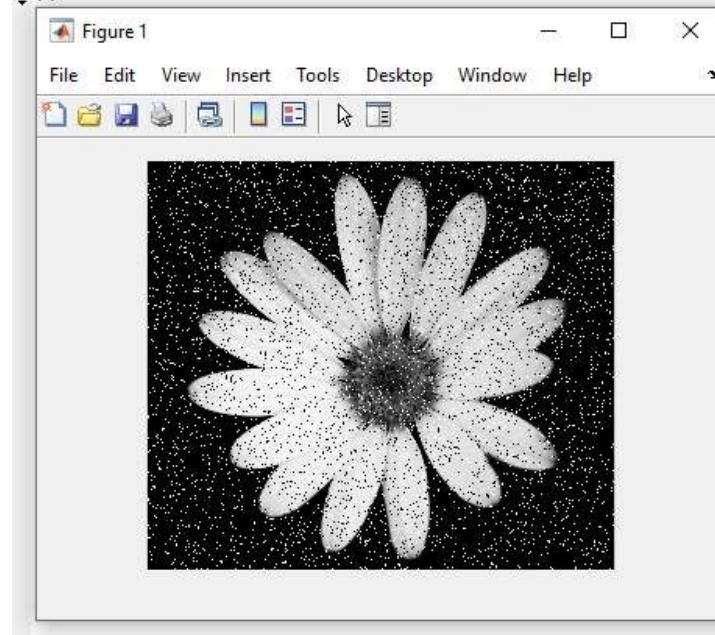
➤ Restorasi



b. Salt & Pepper

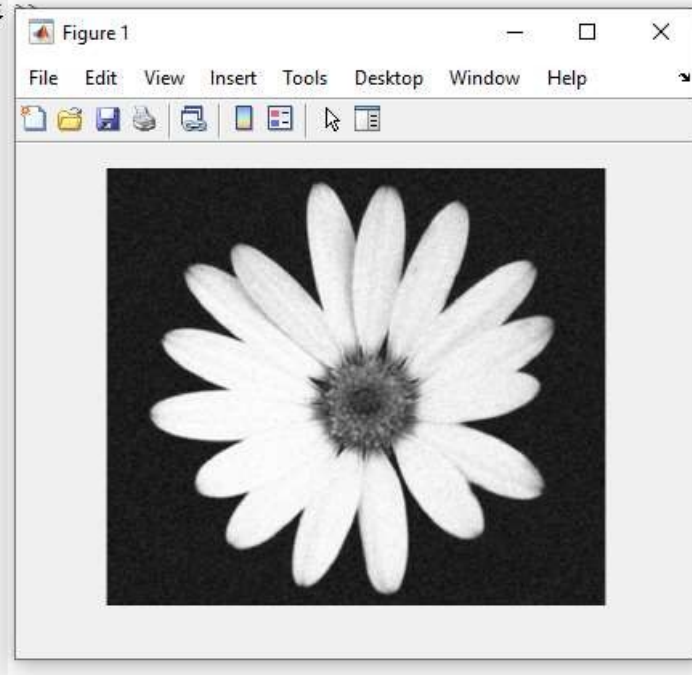
➤ Noise Salt & Pepper

```
>> %Salt & Pepper  
>> SalPep = imnoise(i,'salt & pepper' , 0.1);  
>> imshow(SalPep);  
fx >>
```



➤ Restorasi

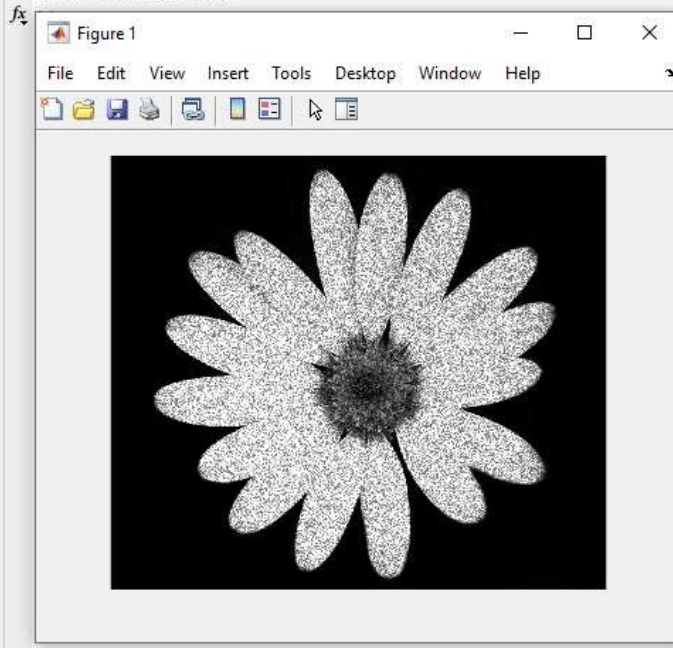
```
>> resSalPep = imfilter(G, ones(5)/25);  
>> imshow(resSalPep);
```



c. Speckle

➤ Noise Speckle

```
Command Window  
  
>> %Speckle  
>> speck = imnoise(i,'speckle', 0.1);  
>> imshow(speck);
```



➤ Restorasi

```
>> resSpeck = imfilter(G, ones(5)/25);  
>> imshow(resSpeck);
```

