# LAB 1 AINA GARCIA ESPRIU, MARTI RAMON ROS

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# Open image

```
im = imread('flowers.tif');
imshow(im)
```

# Extract three bands

```
r = im(:,:,1); %Red band
g = im(:,:,2); %Green band
b = im(:,:,3); %Blue band

figure, imshow(r);
title('red band');
figure, imshow(g);
title('green band');
figure, imshow(b);
title('blue band');
```




# Image reconstruction

```
rgb = cat(3,r,g,b);
figure, imshow(rgb);
title('reconstructed image');
```

# Get monochrome image from color image

```
gray = rgb2gray(rgb);
figure, imshow(gray);
title('grey converted image');
```


# Image Normalization

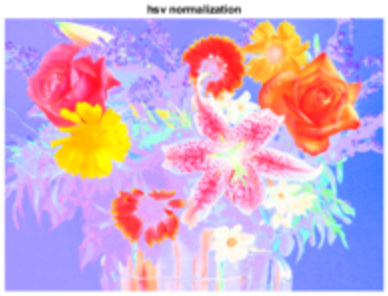
```
norm=cat(3, gray, gray, gray); %matriu d'iluminacio

norm_rgb = double(im)./double(norm); %. per ferla punt per punt
figure, imshow(norm_rgb);
title('normalitzacio naive');
```


# HSV Normalization

```
hsv = rgb2hsv(im);

hue = hsv(:,:,1);
sat = hsv(:,:,2);
v = hsv(:,:,3);

figure, imshow(hue);
colormap('hsv');
colorbar;
title('normalitzacio hue');
```

```
figure, imshow(sat);
title('saturation');

figure, imshow(v);
title('brightness');

v = ones(size(hue));

hsv = cat(3, hue, sat, v);
rgb2 = hsv2rgb(hsv); %Transform to RGB to print it

figure, imshow(rgb2);
title('hsv normalization');
```



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