Simulation and Display of an Image, Negative of an Image(Binary & Gray Scale)

% Red Blue and Green and Gray Components
i=imread('cancercell.jpg');
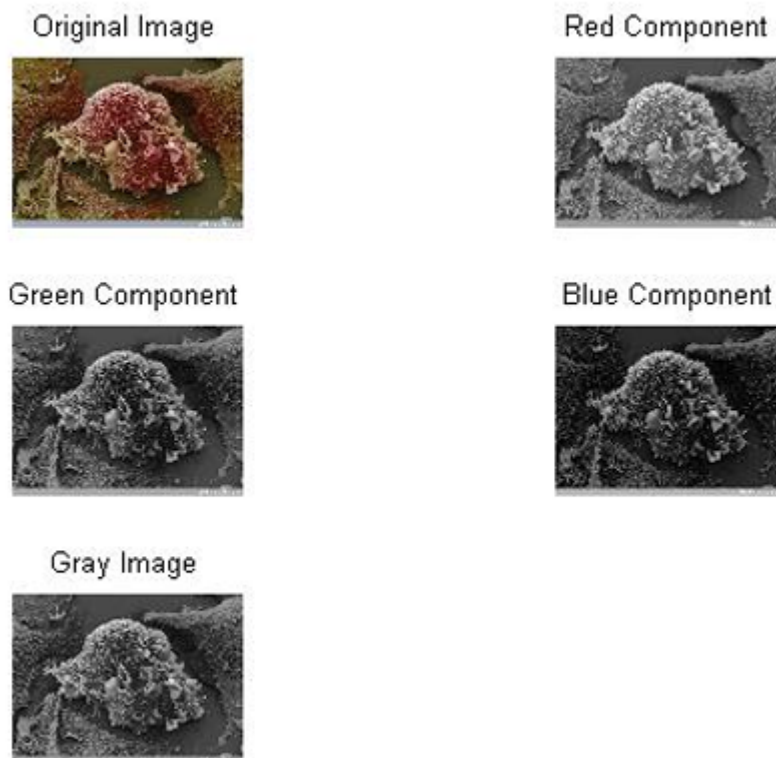subplot(3,2,1); imshow(i); title('Original Image');

%Red Component
r=i(:,:,1);
subplot(3,2,2); imshow(r);title('Red Component');

%Green Component
g=i(:,:,2);
subplot(3,2,3); imshow(g); title('Green Component');

%Blue Component
b=i(:,:,3); subplot(3,2,4); imshow(b); title('Blue Component');
%Color to Gray Image rg=rgb2gray(i); subplot(3,2,5); imshow(rg); title('Gray Image');

Complement, Converting and Simulation of an Image

% Display color Image, find its complement and convert to gray scale

I=imread('cancercell.jpg');
subplot(2,2,1); imshow(I); subimage(I); title('Color Image');

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c=imcomplement(I);
subplot(2,2,2); imshow(c); subimage(c); title('Complement of color Image');

r=rgb2gray(I); subplot(2,2,3); imshow(r);
subimage(r); title('Gray scale of color Image');

%Complement of Gray Image

b=imcomplement(r);
subplot(2,2,4); imshow(b); subimage(b); title('Complement of Gray Image');

%Simulation of an Image( Arithmetic & Logic Operation)
a=ones(40);
b=zeros(40);
c=[a b;b a];
d=[b b;a a];
A=10*(c+d);
M=c.*d;
S=c-d;
D=c/4;
figure;
subplot(3,2,1); imshow(c);
subplot(3,2,2); imshow(d);
subplot(3,2,3); imshow(A);
subplot(3,2,4); imshow(M);
subplot(3,2,5); imshow(S);
subplot(3,2,6); imshow(D);
```
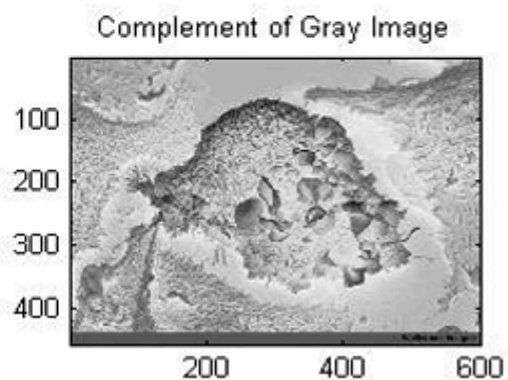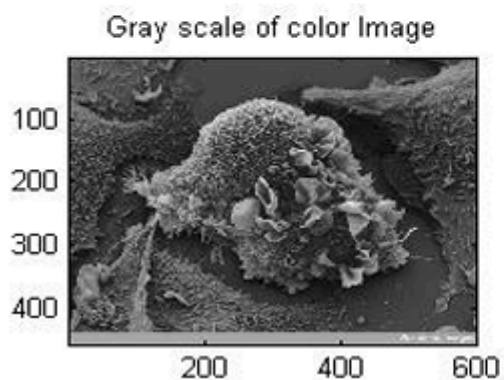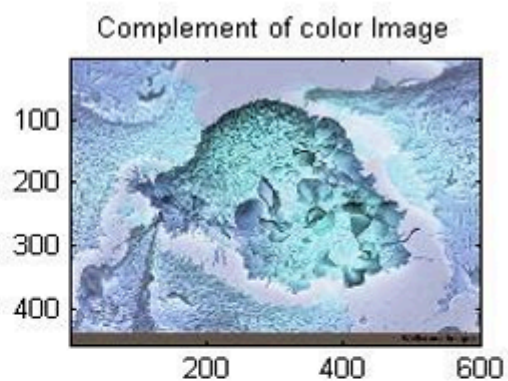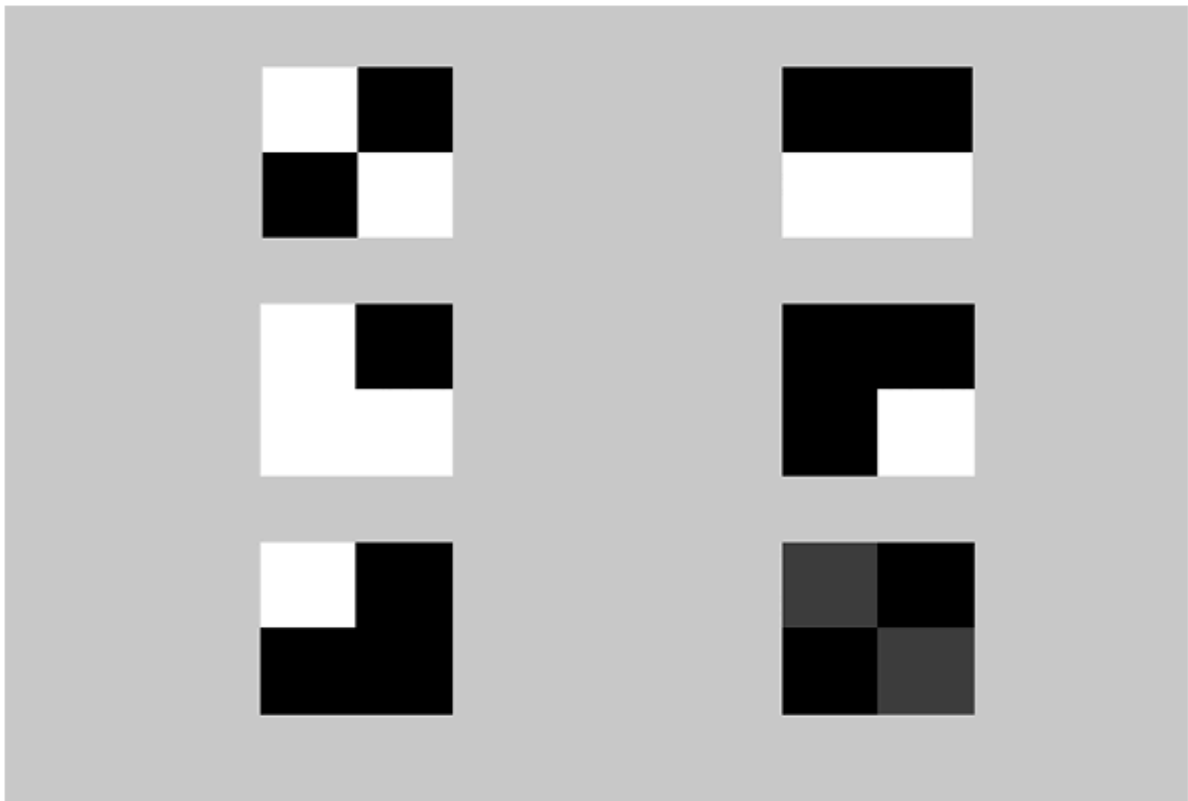
Individual Exercises:

note:
use your own selfie image:
- Simulation and Display of an Image, Negative of an Image(Binary & Gray Scale)
- Color image
- Complement of color image
- Gray scale of color image
- Complement of Gray image

For groupings use group photo