

```

clc;
clear all;
close all;
I = imread('lion.png');
Im = rgb2gray(I);
noisy = imnoise(Im, 'salt & pepper',0.1);
[m,n]=size(noisy);
output = zeros(m,n);
output=uint8(output);
for i=2:m-1;
    for j=2:n-1;
        xmin = max(1,i-1);
        xmax = min(m,i+1);
        ymin = max(1,j-1);
        ymax = min(n,j+1);
        temp = noisy(xmin:xmax, ymin:ymax);

        output(i,j)=mean(temp(:));
    end
end

subplot(141),imshow(I),title('ORIGINAL IMAGE');
subplot(142),imshow(Im),title('RGB TO GRAY');
subplot(143),imshow(noisy),title('NOISY IMAGE');
subplot(144),imshow(output),title('OUTPUT OF MEAN FILTER');

```

ORIGINAL IMAGE



RGB TO GRAY



NOISY IMAGE OUTPUT OF MEAN FILTER



