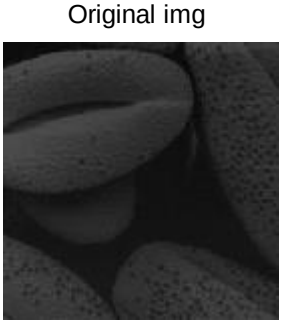
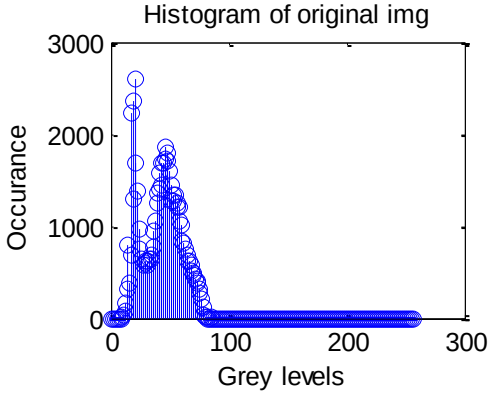
MATLAB

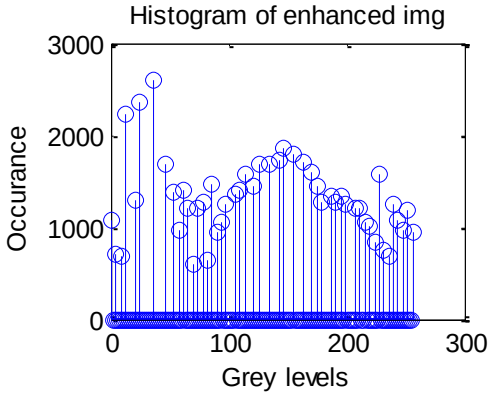
CODE:

A)HISTOGRAM EQUALIZATION:

```
clc;
 clear all;
 close all;
 figure(1)
a=imread('PG1.bmp');
 subplot(2,2,1);
 imshow(a);
 title('Original img');

 s=rgb2gray(a);
 b=imhist(s);
 subplot(2,2,2);
 stem(b);
 title('Histogram of original img');
 xlabel('Grey levels ');
 ylabel('Occurance ');

 c=histeq(s);
 subplot(2,2,3);
 imshow(c);
 title('enhanced img');

  d=imhist(c);
 subplot(2,2,4);
 stem(d);
 title('Histogram of enhanced img');
 xlabel('Grey levels');
 ylabel('Occurance ');
```







B) HPF AND LPF:

```
clc;
clear all;
close all;
fc=10;
figure(1);
a=imread('ELIZA.bmp');
subplot(2,2,1);
imshow(a);
title('Original image');
[r,c]=size(a);
for i=1:r
    for j=1:c
        e=sqrt(((i-(r/2))^2+(j-(c/2))^2));
        if e<fc
            h(i,j)=1;
        else
            h(i,j)=0;
        end
    end
end
subplot(2,2,2);
imshow(h);

[r,c]=size(a);
```

```
for i=1:r
    for j=1:c
        e=sqrt(((i-(r/2))^2+(j-(c/2))^2));
        if e<fc
            h(i,j)=0;
        else
            h(i,j)=1;
        end
    end
end
subplot(2,2,3);
imshow(h);

f=fft2(a);
f1=fftshift(f);
x=h.*f1;
y=ifft2(x);
z=abs(y);
subplot(2,2,4);
imshow(z,[ ]);
```

Original image