



Tratamiento de Señales

Version 2022-I

Histogramas

[Capítulo 3]

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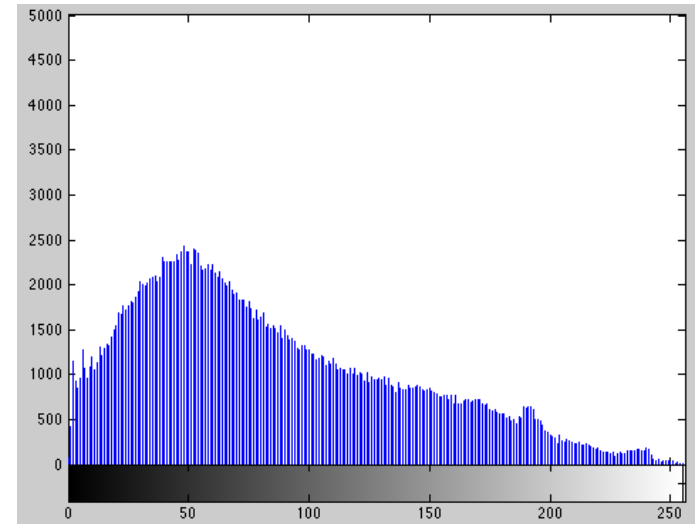
DSP-ASIC BUILDER GROUP
Director Semillero TRIAC
Ingeniería Electronica
Universidad Popular del Cesar

Image Histogram:

Representation that gives the number of pixels of the image for each grayvalue.



[IMAGE]



[HISTOGRAM]

Image Histogram

Representation
image for each

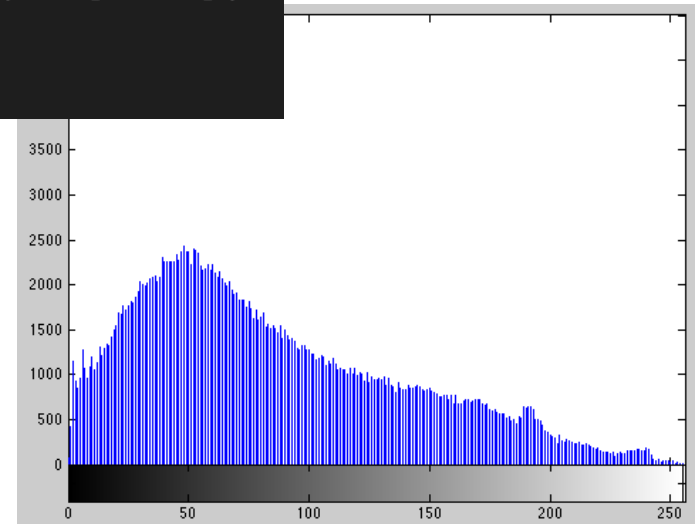
X



[IMAGE]

```
def imhist(X):  
    (N,M) = X.shape  
    n = 256  
    h = np.zeros((256,))  
    for i in range(N):  
        for j in range(M):  
            x = X[i,j]  
            h[x] = h[x]+1  
    plt.plot(range(n),h[0:n])  
    plt.show()
```

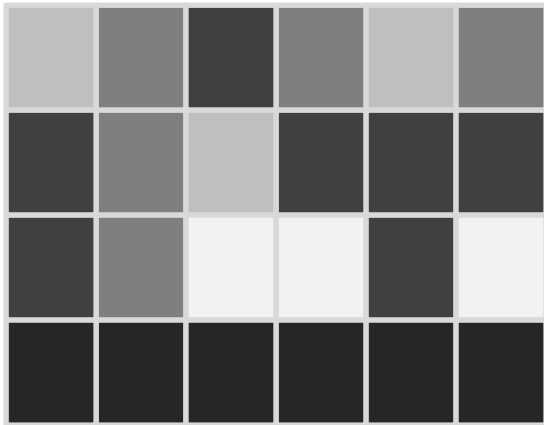
pixels of the

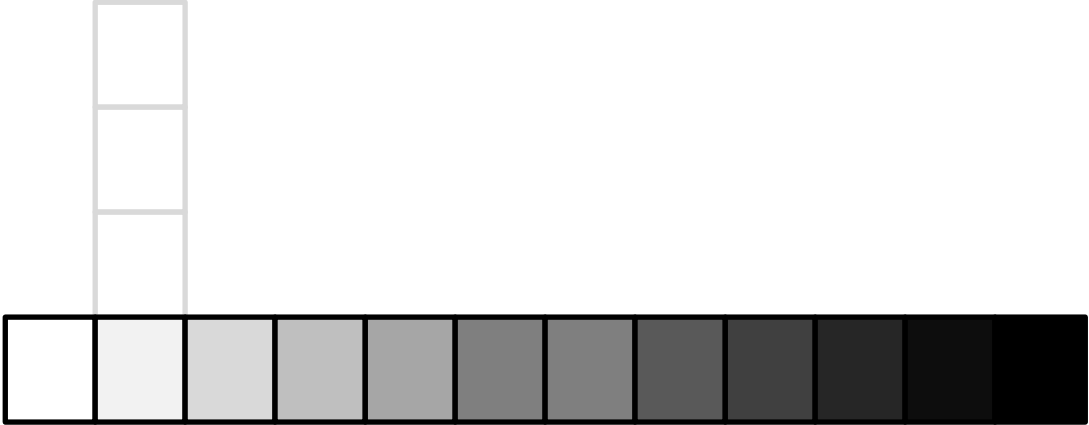
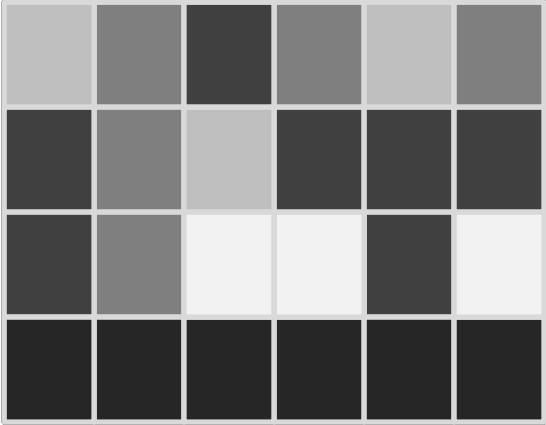


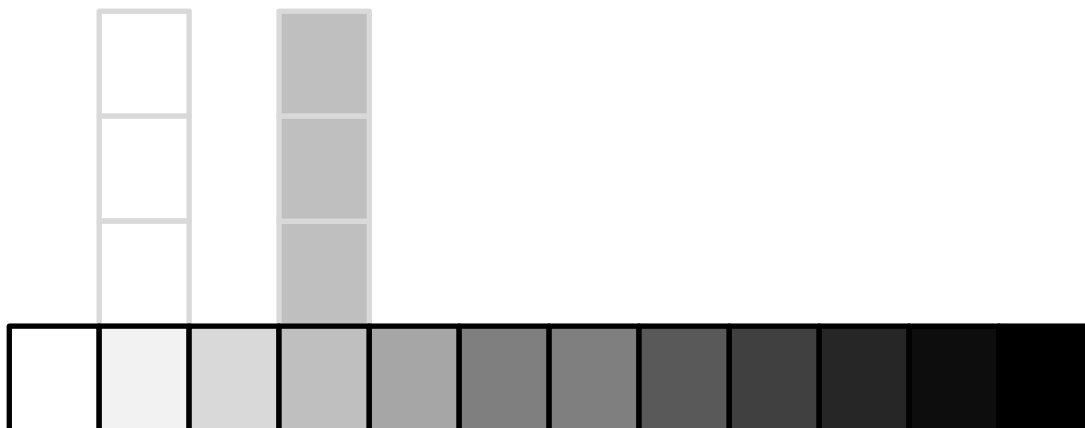
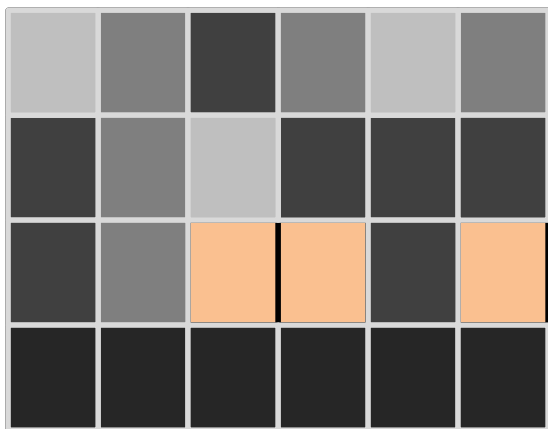
[HISTOGRAM]

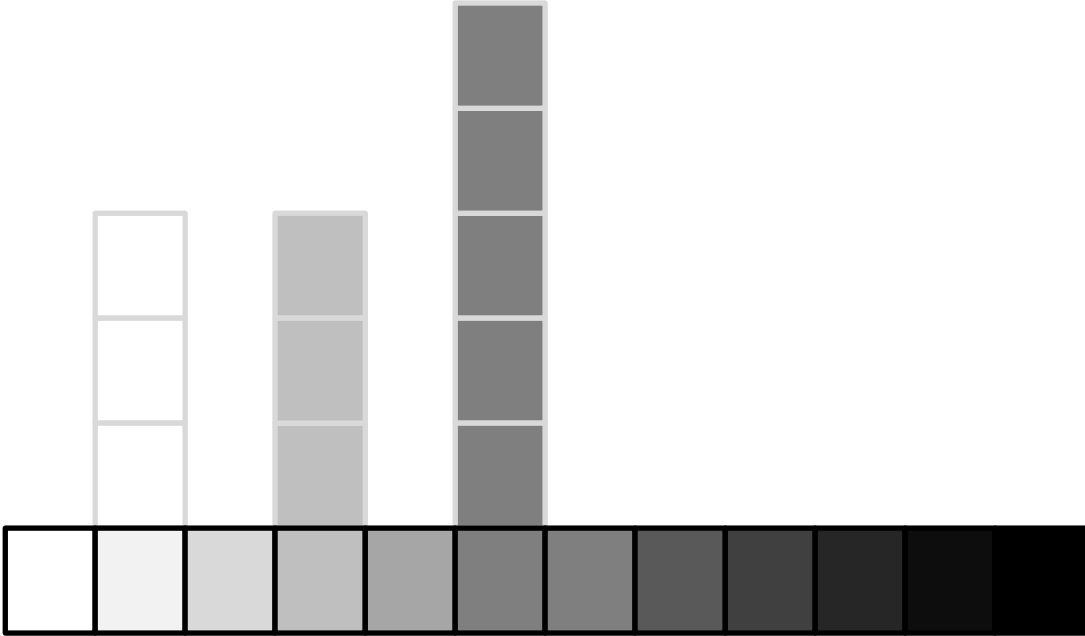
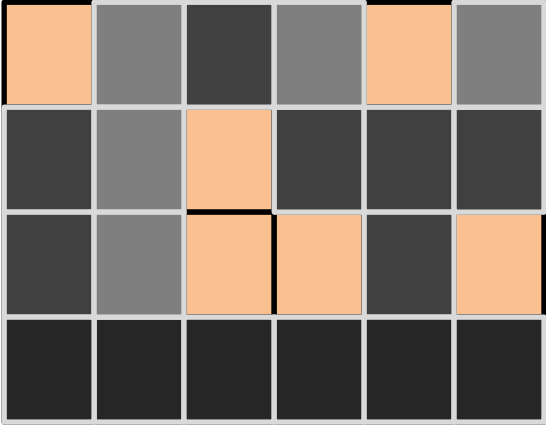
Example:

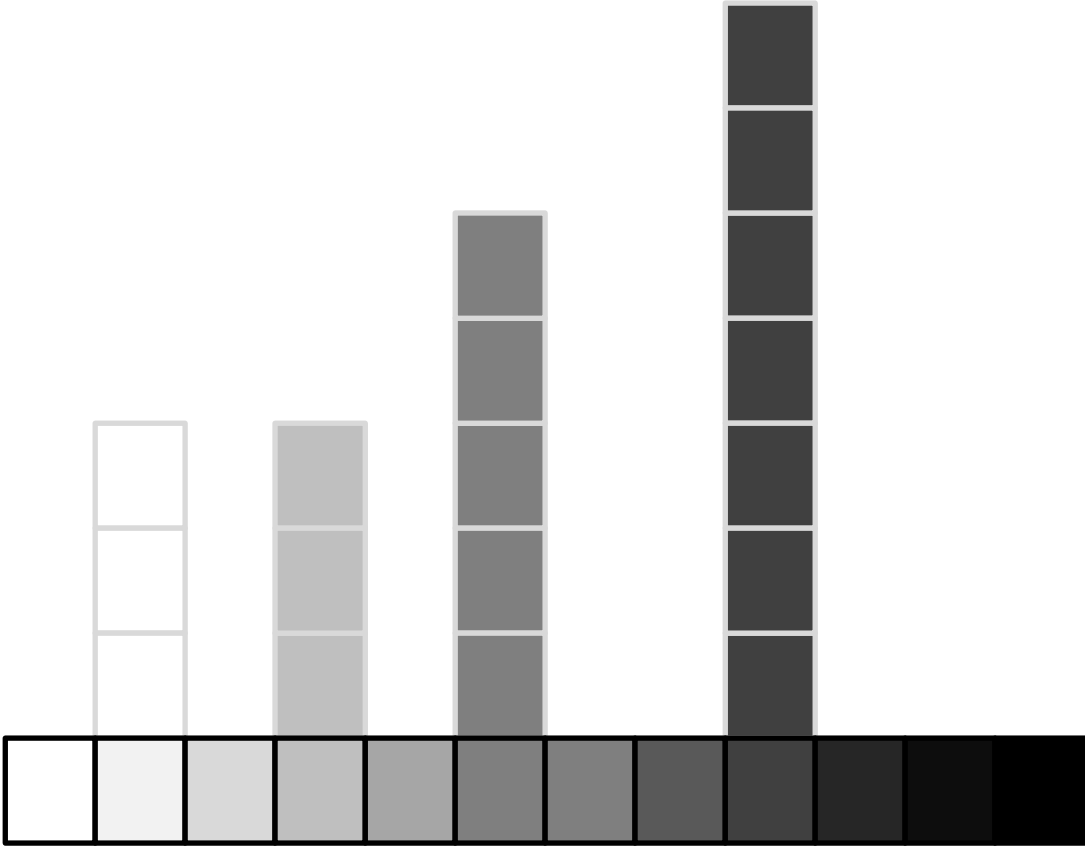
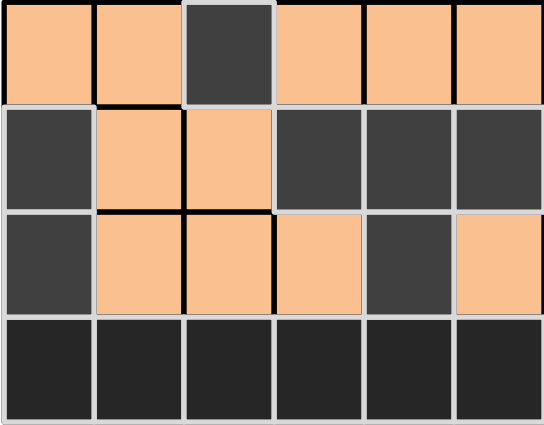
Image with 4x6 pixels and a grayscale with 12 grayvalues.

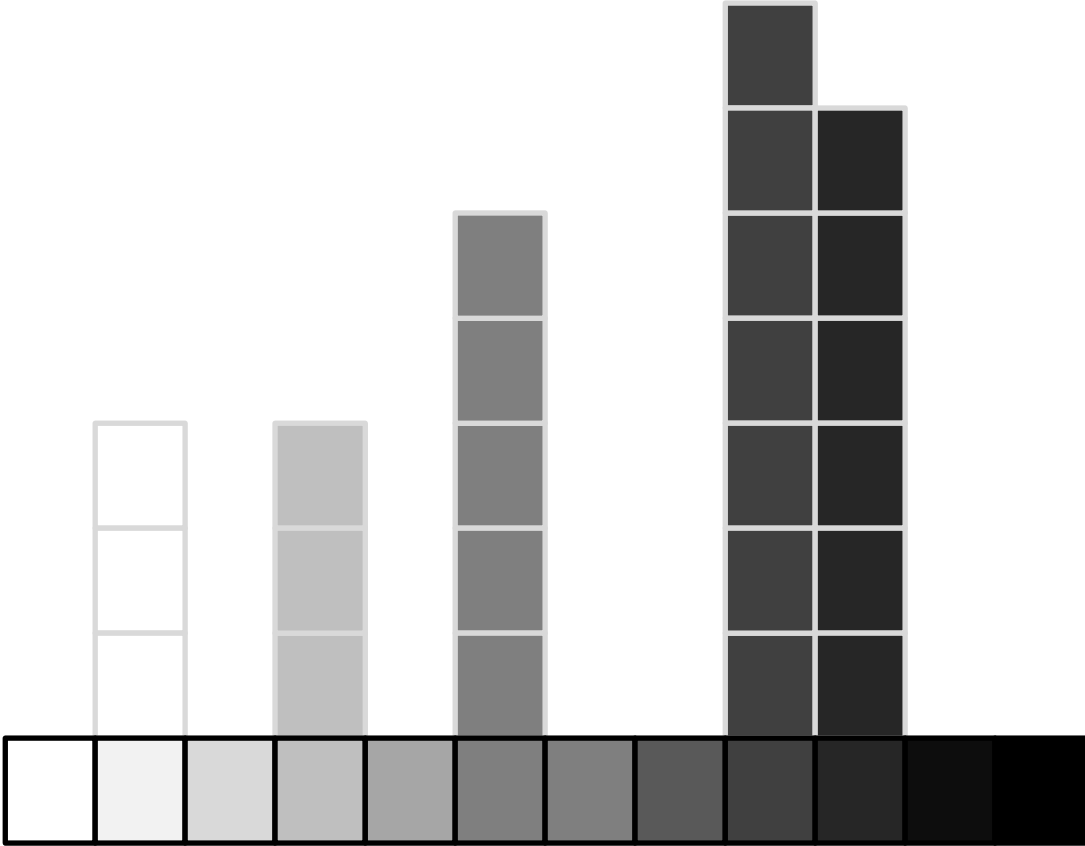
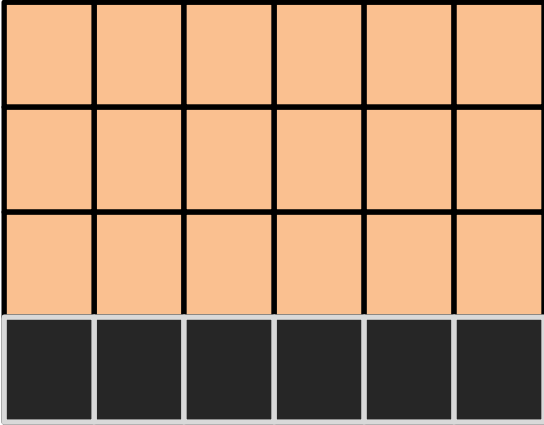


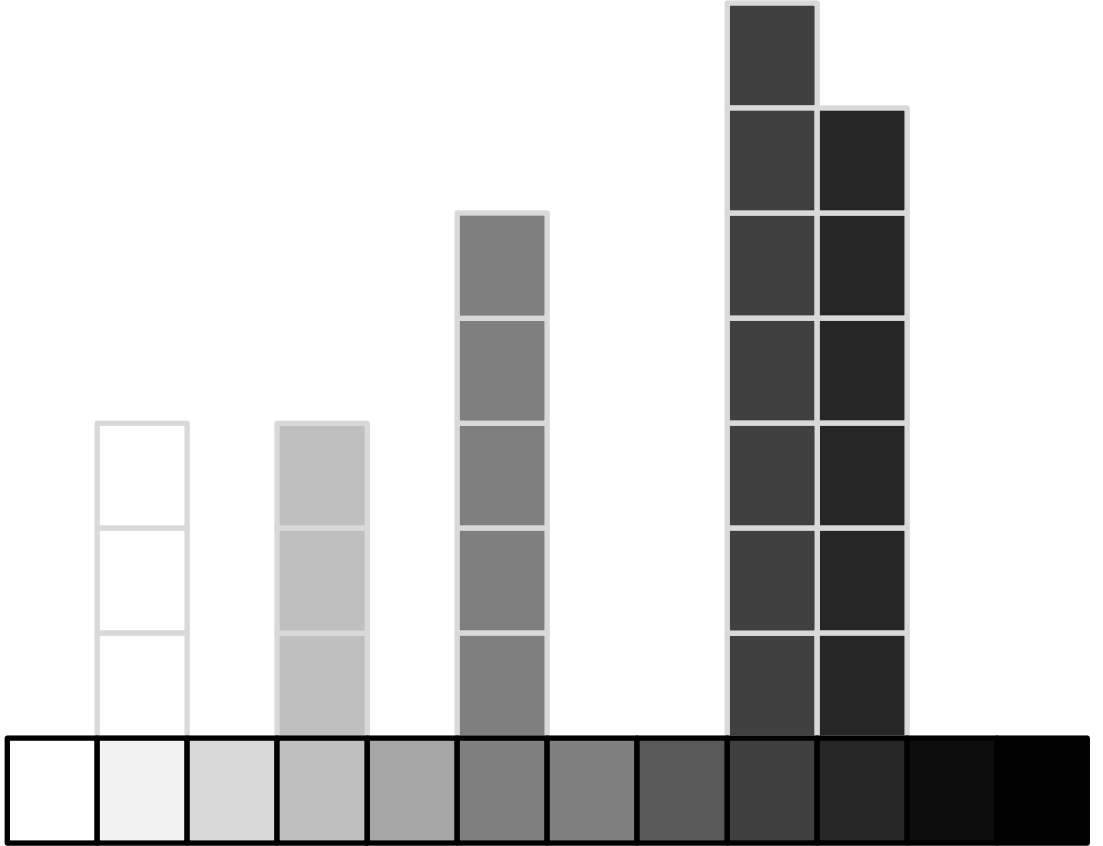
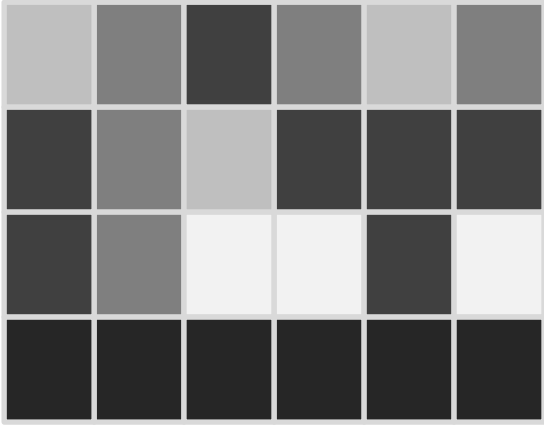












4	6	9	6	4	6
9	6	4	9	9	9
9	6	2	2	9	2
10	10	10	10	10	10

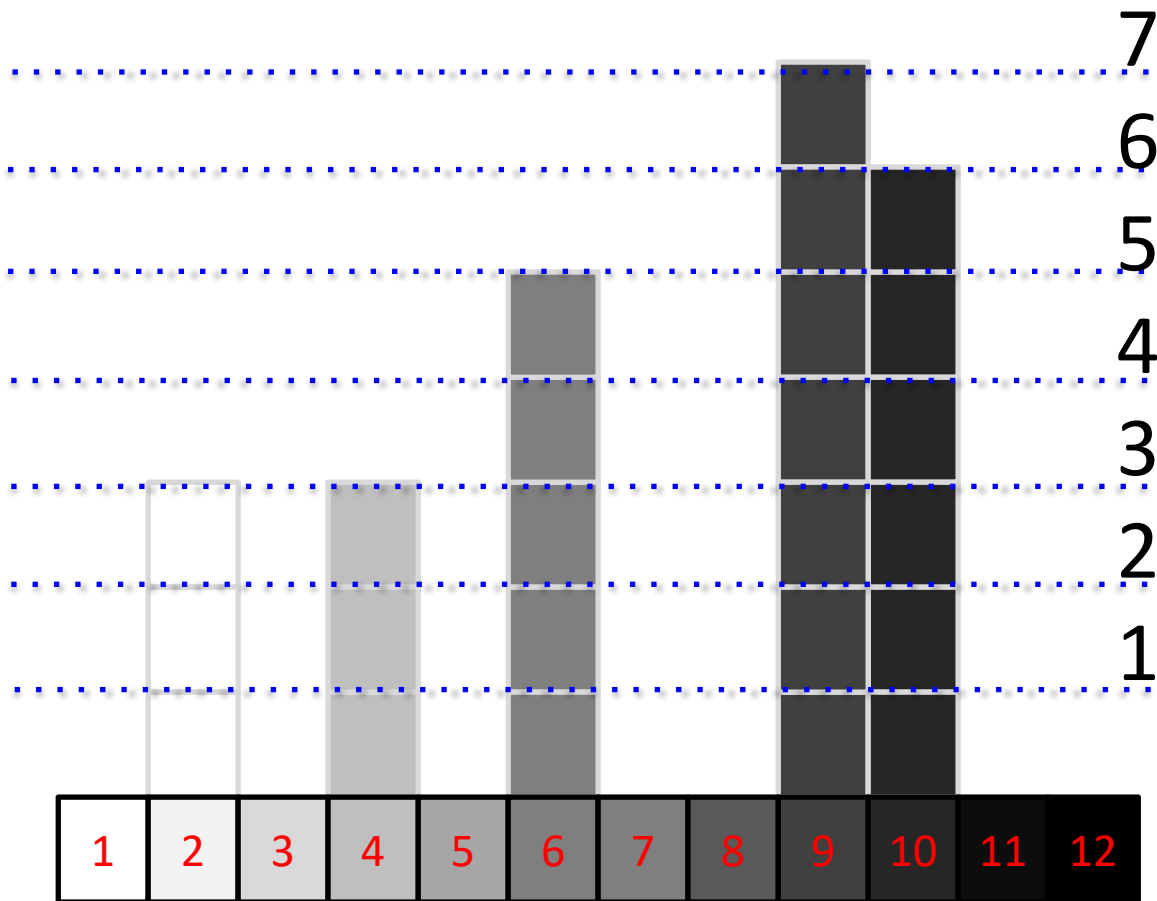
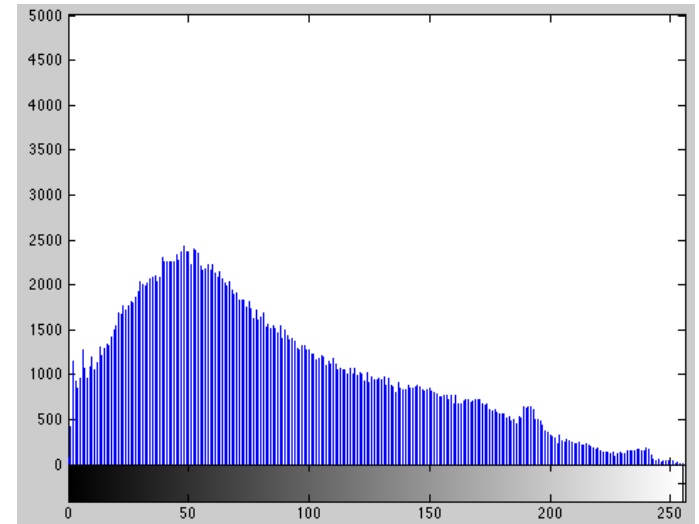


Image Histogram:

Representation that gives the number of pixels of the image for each grayvalue.



[IMAGE]



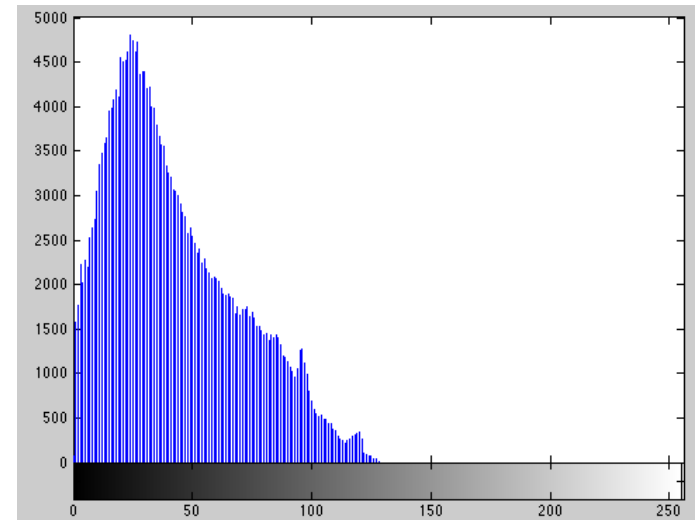
[HISTOGRAM]

Image Histogram:

Representation that gives the number of pixels of the image for each grayvalue.



[IMAGE]



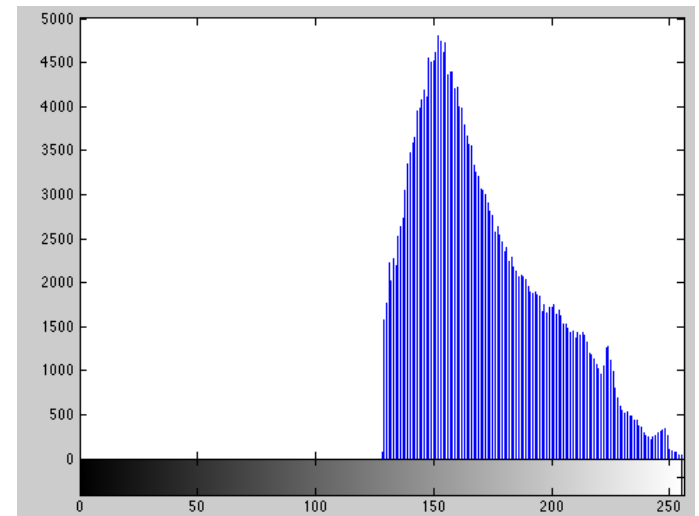
[HISTOGRAM]

Image Histogram:

Representation that gives the number of pixels of the image for each grayvalue.



[IMAGE]



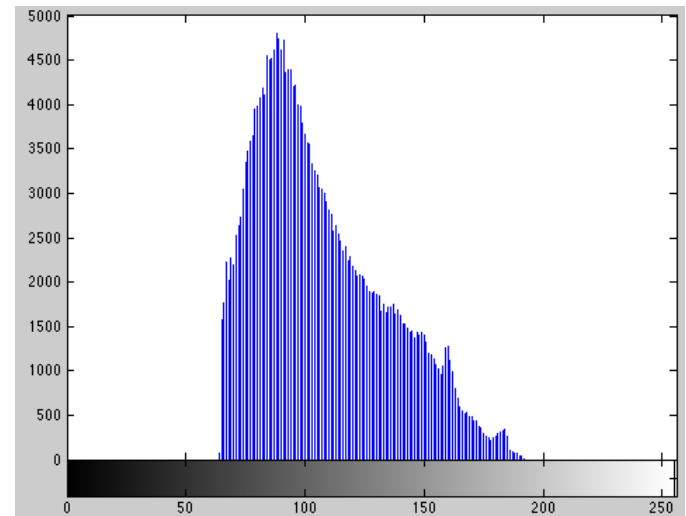
[HISTOGRAM]

Image Histogram:

Representation that gives the number of pixels of the image for each grayvalue.



[IMAGE]



[HISTOGRAM]

