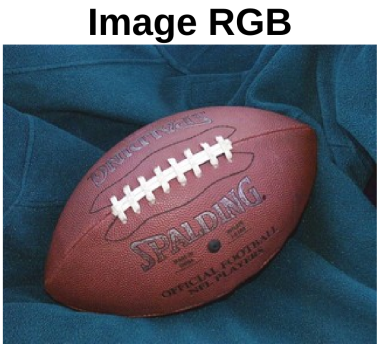
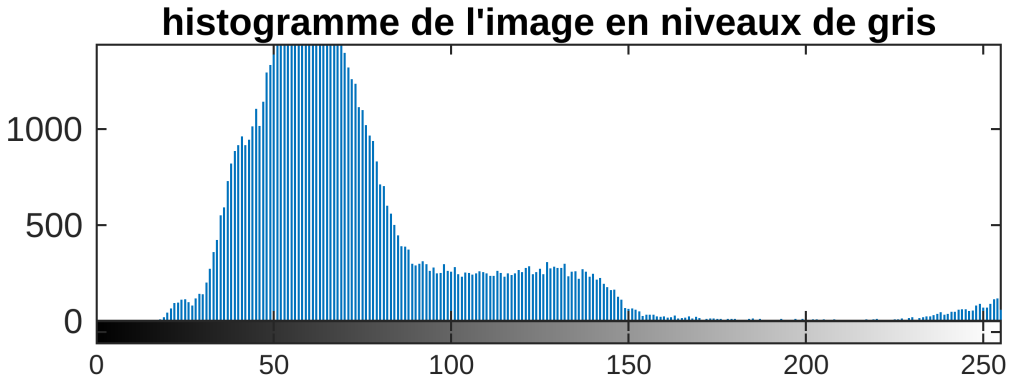
TP2-Techniques d'amélioration Des Images

Exercice 1:

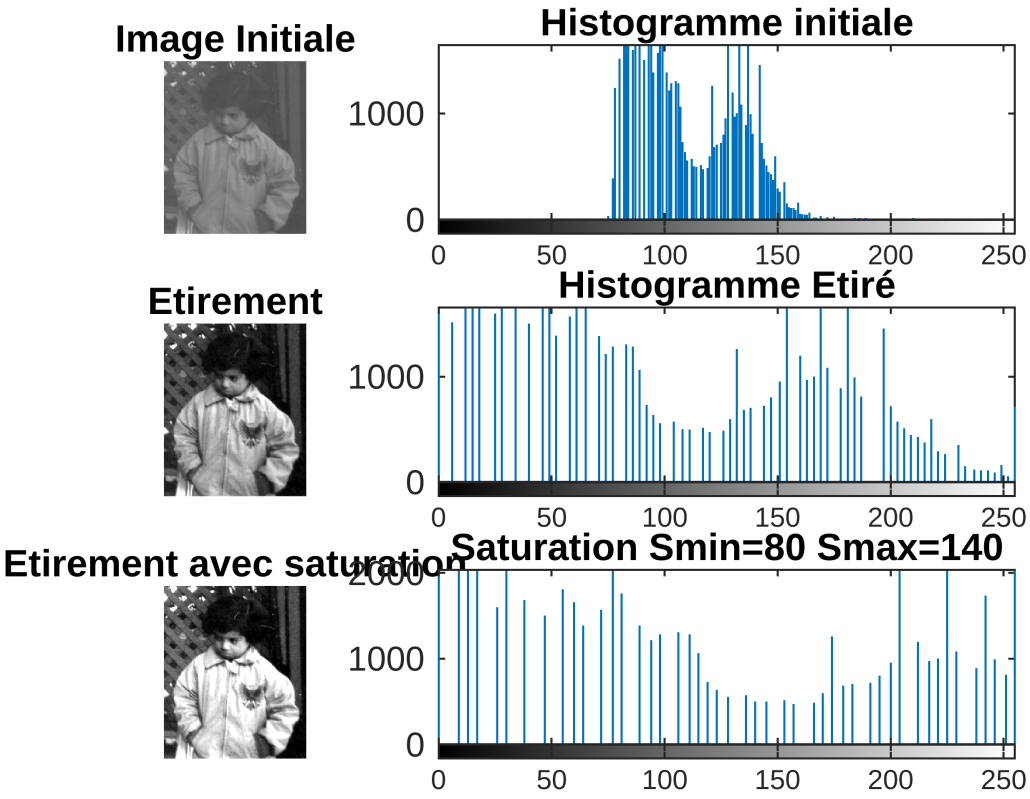
```
I1 = imread('football.jpg') ; %image couleur RGB
x = rgb2gray(I1);
subplot(221),imshow(I1), title('Image RGB')
subplot(222),imshow(x), title("Image Niveaux de gris")
subplot(2,2,[3,4]),imhist(x),title("histogramme de l'image en niveaux de
gris")
```





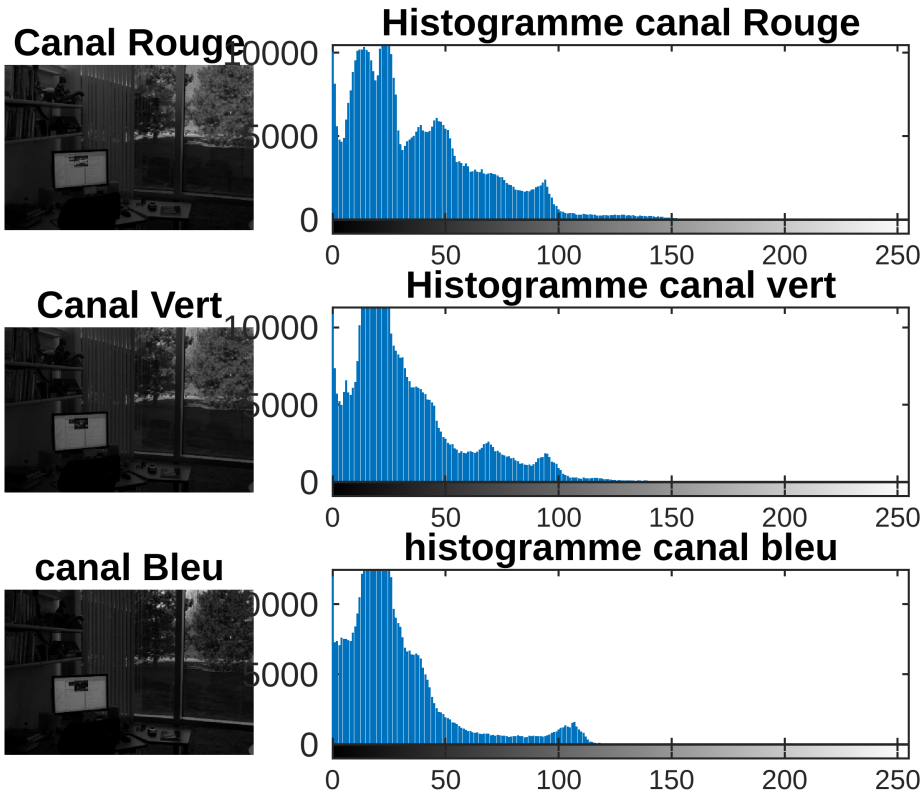
Exercice 2:

```
I2 = imread("pout.tif");
figure
subplot(331),imshow(I2),title("Image Initiale")
subplot(3,3,[2,3]),imhist(I2),title("Histogramme initiale")
j=imadjust(I2);
subplot(334),imshow(j),title("Etirement")
subplot(3,3,[5,6]),imhist(j),title("Histogramme Etiré")
j2=imadjust(I2, [80/255 140/255]);
subplot(337),imshow(j2),title("Etirement avec saturation")
subplot(3,3,[8,9]),imhist(j2),title("Saturation Smin=80 Smax=140")
```



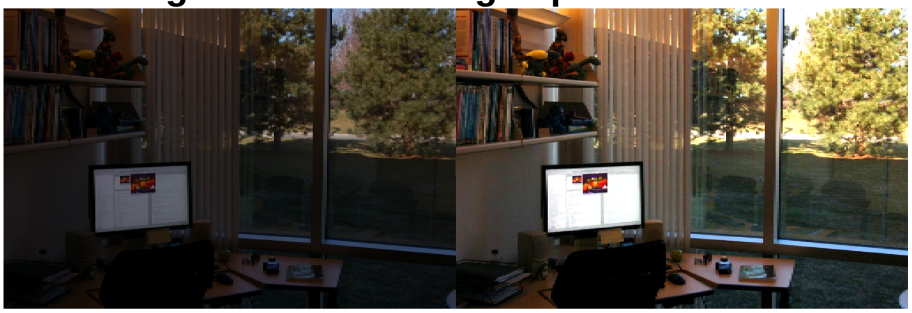
Exercice 3:

```
I3 = imread("office_2.jpg");
R =I3 (:,:,1 );
G = I3(:,:,2) ;
B = I3 (:,:,3);
figure
subplot(331),imshow(R),title("Canal Rouge")
subplot(3,3,[2,3]),imhist(R),title("Histogramme canal Rouge")
subplot(334),imshow(G),title("Canal Vert")
subplot(3,3,[5,6]),imhist(G),title("Histogramme canal vert")
subplot(337),imshow(B),title("canal Bleu")
subplot(3,3,[8,9]),imhist(B),title("histogramme canal bleu")
```




```
K1 = imadjust(I3,[0 0 0; 90/255 90/255 100/255]);
figure, montage({I3,K1}),title('image Initiale --> Image aprés étirement')
```

image Initiale --> Image aprés étirement



Exercice 4:

```
function [B,C1,C2]=stat(I)
B=mean2(I);
C1=(max(double(I(:)))-min(double(I(:))))/(max(double(I(:))))
+min(double(I(:)));
C2 = std2(I);
c = imadjust("circuit.tif");
end
```