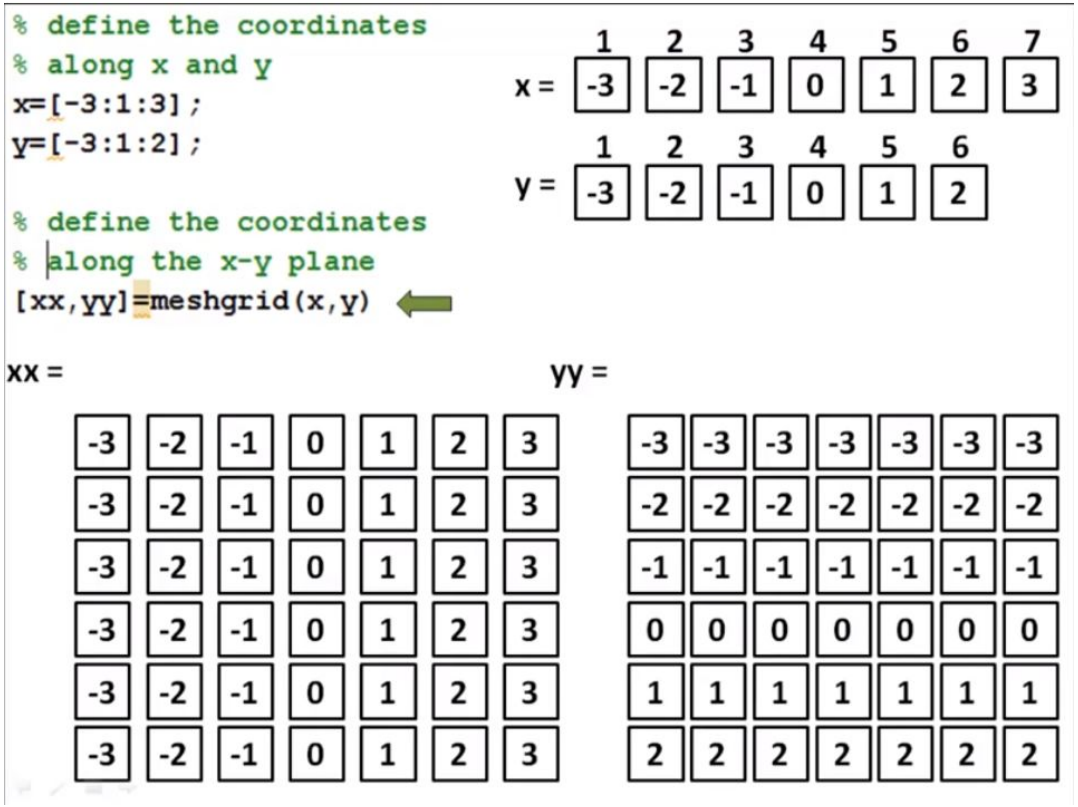
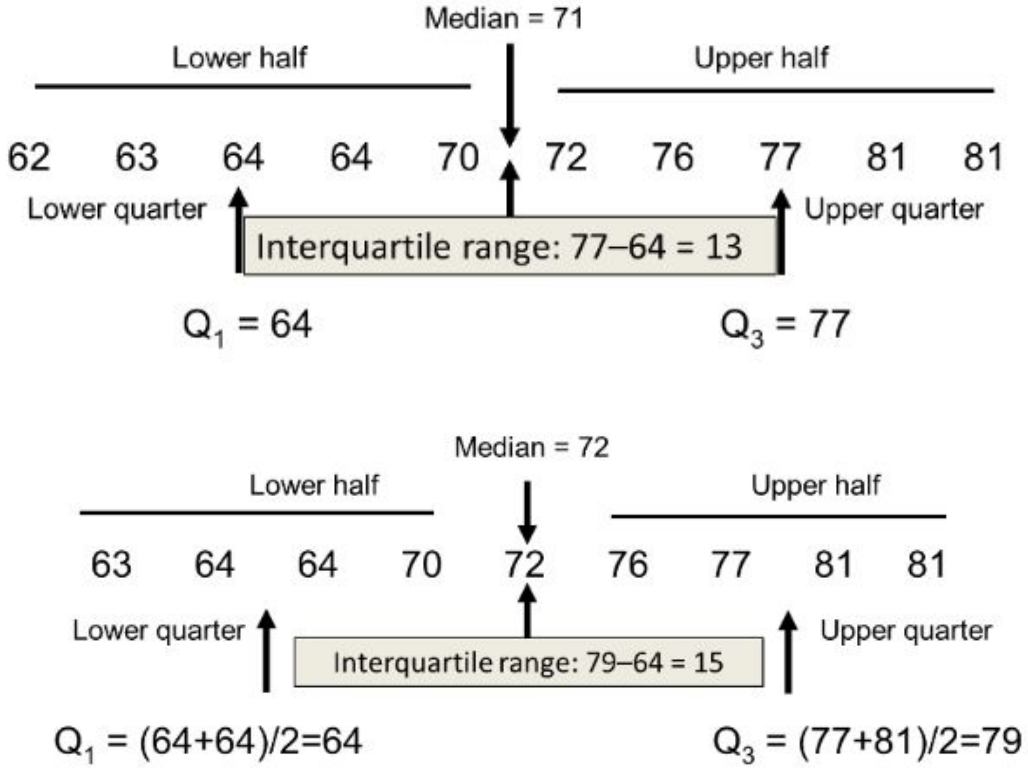
Concepts

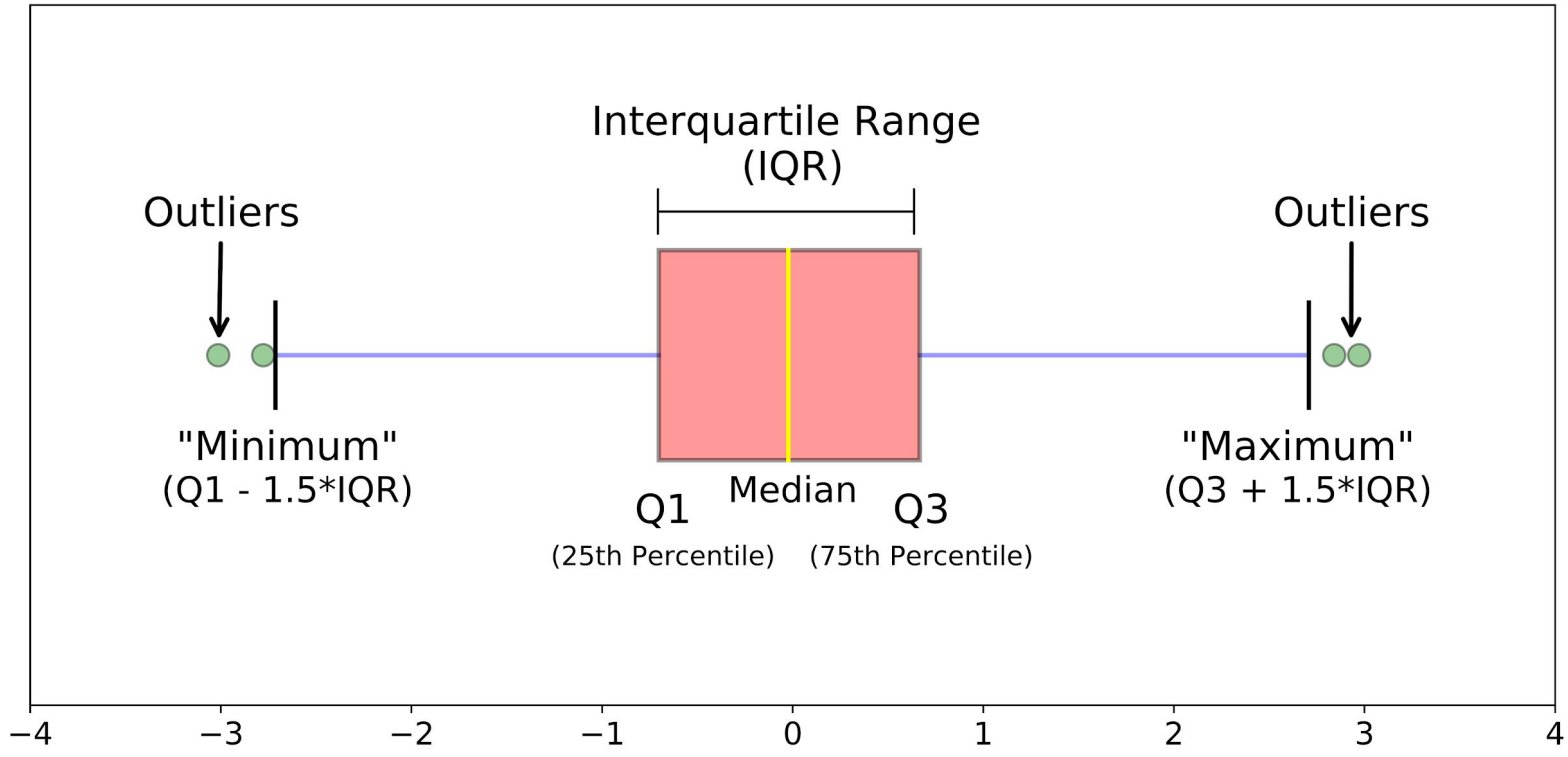
Meshgrid


% define the coordinates
% along x and y
x=[-3:1:3];
y=[-3:1:2];
% define the coordinates
% along the x-y plane
[xx,yy]=meshgrid(x,y)
x =
1 2 3 4 5 6 7
-3 -2 -1 0 1 2 3
y =
1 2 3 4 5 6
-3 -2 -1 0 1 2
xx =
-3 -2 -1 0 1 2 3
-3 -2 -1 0 1 2 3
-3 -2 -1 0 1 2 3
-3 -2 -1 0 1 2 3
-3 -2 -1 0 1 2 3
-3 -2 -1 0 1 2 3
yy =
-3 -3 -3 -3 -3 -3 -3
-2 -2 -2 -2 -2 -2 -2
-1 -1 -1 -1 -1 -1 -1
0 0 0 0 0 0 0
1 1 1 1 1 1 1
2 2 2 2 2 2 2

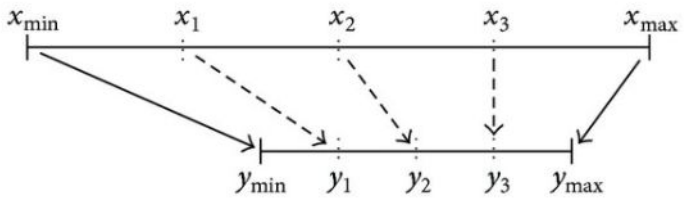
Interquartile Range (IQR)

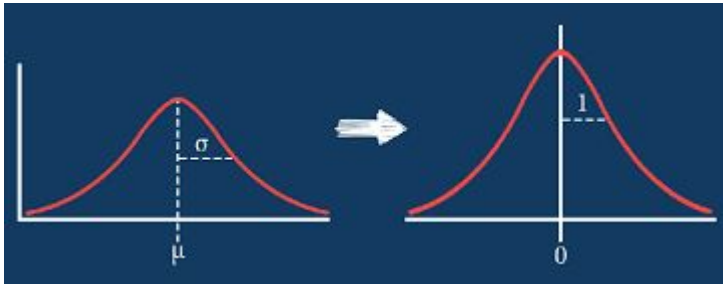


Outlier Detection based on IQR



Normalization





MinMax normalization: $z = \frac{x - min(x)}{max(x) - min(x)}$

Standard normalization: $z = \frac{x - mean(x)}{std(x)}$