Date :

#1 Introduction to Images

→ Grayscale Image

Images when saved in ~~Data~~ computer as a data structure, they are actually saved in terms of 2D matrices. So for example, a grid of numbers in here, you can see a grid, a two dimensional grid, which can also be called as the array and in that array, it actually a containe non-negative integers.

157	153	174	128	13	141	82	79
150	15	18	17	16	15	91	71
160	20	1	2	5	4	81	74
69	67	90	...				
		70					

→ all are numbers b/w 0 to 255

There are ranges of integers, but most typically range is ~~0~~ 0 to 255. b/w

The larger the number, ~~the larger~~ the brighter the color code assigned to it.

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Pure Black = 0 Pure White = 255

10 = dark color 210 = Bright color

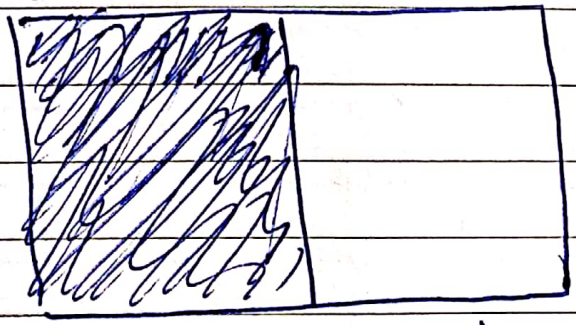
In 8-bit images,

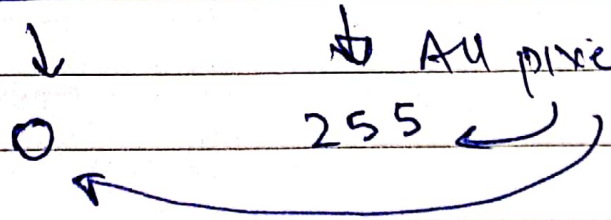
The total colors are: 256, starting from zero to 255

The image is actually saved as a two dimensional array of numbers (2D Matrix), typically images are 8-bit, so, the minimum no. is 0 and the max number is 255 inclusive. [0, 255].

Quiz

What will be the values of pixels of an image that is half black and half white?





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