Computer Vision – HW 1 Report

For the first part of the homework, I could extract the walking guy from the rest of the image thanks to the indexed segmentation maps. Then changed his color, added to the rest of the image and created a 25 fps video with moviepy as expected in the homework PDF. Then I used same method on two different image sets.

At second part, I created 3 different methods for easiness: histogram, cumulative histogram and lookup table. I took average histogram of all images' 3 distinct channels, created a lookup table for each channels with a target image, then matched all images' histograms (RGB) respect to the created LUTs. Since this process takes long time on my computer (Approx. 1 hour), I've only created one sample video.

At the last part, basically it was mixture of first and second part. I've created two distinct images (for example, swan and the image without swan), matched their histograms with target images by utilizing created LUTs and added two images at last. As expected, this process too takes a long time.