ADIPCV-2022 ASSIGNMENT-3
/* Saturation and desaturation. */

Implement saturation and desaturation operations on colour images
(as attached). Assume any plausible coordinates of vertices of the
gamut triangle in the CIE chromaticity chart. Provide the following
outputs for an image:
(i) Maximally saturated image.
(ii) Desaturated image.
(iii) Saturated-desaturated image.
(iv) Plots of chromaticity points of each cases including the
original image. Use the attached ciexyz31_1.csv, which provides
colour matching functions in XYZ space for every monochromatic
colour. Every row contains the information as follows:
 Wavelength (in nm), X, Y, and Z.

Marking policy:
(i) Implementation of display of chromaticity plot. 20
(ii) Implementation of maximal saturation operation. 20
(iii) Implementation of desaturation operation. 20
(iv) Results showing saturation, desaturation, and saturation-
desaturation: 15
(v) Showing chromaticity plots. 15
(vi) Quality of results: 10 (With proper choice of parameters).

Submit your codes, results, a README file for running the codes and
a write-up describing the implementation and observations.

For well organised reporting and coding – 10.

You may implement your programs in C++-OpenCV/MATLAB/ Python with
necessary user's interfaces and visualization of your results and
input.
Please provide a documentation for compiling and running the
programs in a README file. The whole project should be submitted in
a single tar or zip file.