ADIPCV-2019 ASSIGNMENT-5
/* 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.