## Instructions

Using NumPy, Matplotlib and OpenCV, Perform the following Operations on the images provided.

- 1. Read the image using OpenCV and display the image using matplotlib.
- 2. Check the data type of the image.
- 3. Check the dimensions of the image.
- 4. Find the maximum and minimum values of pixels.
- 5. Convert the image into float format and display the image.
- 6. Find the maximum and minimum values of pixels in the float format.
- 7. Convert the image into gray scale using OpenCV and display the image with proper mapping.
- 8. Read the image directly in a gray scale format using OpenCV.
- 9. Using NumPy Indexing extract the central  $100 \times 100$  pixel of the image and display the image with size  $100 \times 100$ .
- 10. Perform Horizontal and Vertical Flipping of the Image.
- 11. Extract the Red, Green and Blue Channel of the Image.
- 12. Regenerate the image from the Red, Green and Blue Channel.
- 13. Submit only the pdf version of your python script of your assignment.
- 14. Only the pdf version of your assignment will be accepted. Don't make a zip file and do not submit the image and assignment instructions.
- 15. The name of the pdf file should be your FullName\_ID.