IIVP Practice Assignment -3
(Introductory Level)
Instructor: Prof. Anupam

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Instruction:

Download MATLAB and/or Python and/or C++ and/or Java toolkit and setup environment for IVP Practice experiments. Use your preferred tools for the entire IVP practice experiments. Do not use the inbuilt functions unless mentioned in the experiments. Use Lenna image (popular picture use for image processing) as a sample image. Input images may vary subject to experiments.

Submit your codes and outputs etc. by 7pm of each Practice session.

Questions:

A. Write a MATLAB/Python/C++/Java code that will do the following

1. Read any gray scale image.

2. Display that image.

3. Reads a gray scale image and generates the flipped image of original image.

4. Again display the image such that the pixels having intensity values below than 50 will display as black and pixels having intensity values above than 150 will display as white. And the pixels between these will display as it is.

B. Imagine that we have an image with pixels like below. Write an appropriate code to show the histogram representation of the provided image.

$$\begin{bmatrix} 87 & 90 & 1 \\ 1 & 89 & 89 \\ 87 & 120 & 120 \\ 88 & 100 & 90 \\ 2 & 88 & 88 \\ 2 & 90 & 90 \end{bmatrix}$$