========== CS764 Lab 01b ==========

This lab contains the warm-up tasks based on python programming involving array operations and manipulations on images and videos. The tasks are solved using the python modules numpy and opencv.

- It helped to know how to deal with images and videos which is the primary step needed for computer vision.

- Different manipulations on images like reading images, color-model conversions, resizing, writing/saving the images etc. using opencv are learnt.

- I came to know that videos are captured as frames and since frames are images, manipulations on video becomes easy if we are strong in dealing with images.

- I also learnt about argparse module and how to provide inputs and run python files from the command prompt.

- The numpy module is a very useful module because it can be used to process large dimensioned data with ease and proved to be much advantageous than lists.

- The row manipulation task helped me to learn how to create different types of matrices and learned different modes of padding an array.

- The k-means clustering was a real challenging task which involves building an algorithm from scratch. Understanding the concept of algorithm led me to code the algorithm and was found very interesting.

- Plotting images and visualisation using matplotlib is also learnt.

- The task proves to be a good start for computer vision and deep learning.