RO-1.0X

Assignment 1
Image Coordinates Convention

Problem Statement:

- ***Given files are***
  - *"**assignment_1_cartesian_coords.txt**"*
    - *which contains **"(x, y)" Cartesian Coordinates (Right Hand Convention)** of a given a color image*
  - ***"assignment_1.jpg"** is an image where coordinates mentioned in above file are set to [0, 0 ,0].*
  - *also given a file **"RGB_values.txt"** which contains the original pixel values at those coordinates.*
  - ***Tasks***
    - *Use the knowledge from **Image Coordinate Convention** lecture about the **Right Hand Rule of Cartesian Coordinate System** to convert the **"(x, y)" coordinates** into **Image's "(row, column)"** space.*
    - *After getting all the **"(row, column)"** values reconstruct the image*
  - ***To Submit***
    - ***"sub_row_col.txt"** -> containing all **"row, col"** values converted from **"x, y"** in the same order as in the "**assignment_1_cartesian_coords.txt**"*
    - ***"Reconstrcuted image" (r.jpg)** using the values present in **"RGB_values.txt"***
      - ***Once image is reconstructed save it using following command***
        - ***cv2.imwrite('r.jpg', img) {**where **img** is the n-dimensional numpy array which contains the image**}***
    - *To submit the assignment put both the files in a folder named **username**, where **username** is your user name with which you signed up in DeepEigen.*
      - *Submit **username.zip** file*