CSL7020 Assignment 4

Dataset:

Image: Bainsla-jaini.png

Approach:

1) Using PIL Library, we import image

2) Using numpy library we converted image into an array

3) Using matplotlib.pyplot and matplotlib.image , we plotted the image

Model Description:

1) We have first taking an image of height -1024 and width- 1024

2) Using Function Open Image we break the image into three components (red, green, blue)

3) Compressed these image matrices (red, green, blue) using singular value Decomposition

4) Reconstruct the new compressed image

5) Calculate the compressed ratio using formula:

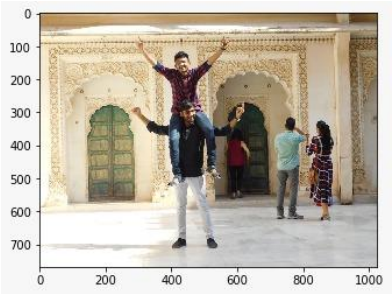
$$\text{Ratio} = \text{Compressed size} / \text{Original Size}$$

Accuracy:

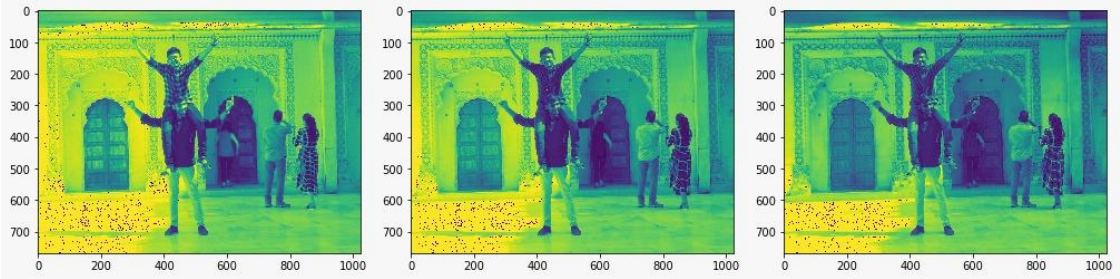
RECONSTRUCT IMAGE SIZE = 78% (COMPRESSED) OF ORIGINAL IMAGE

PLOTS:

1) ORIGINAL



2) RGB IMAGES



3) COMPRESSED IMAGE