Assignment 1 Final Report-Part 1
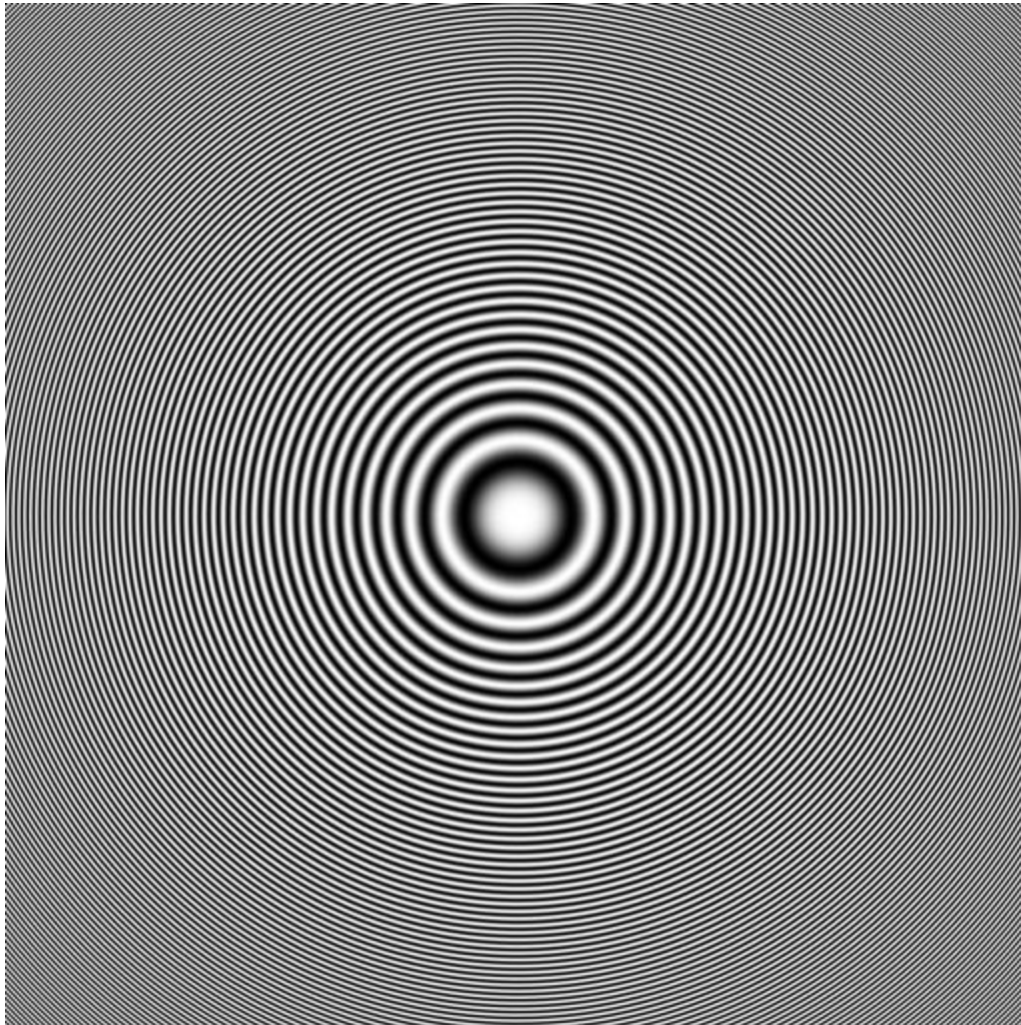
Q1)

    a)   Image Shrinking

File name :-- myShrinkImageByFactorD.py contains function shrink_image_d() which selects every d pixel along each dimension
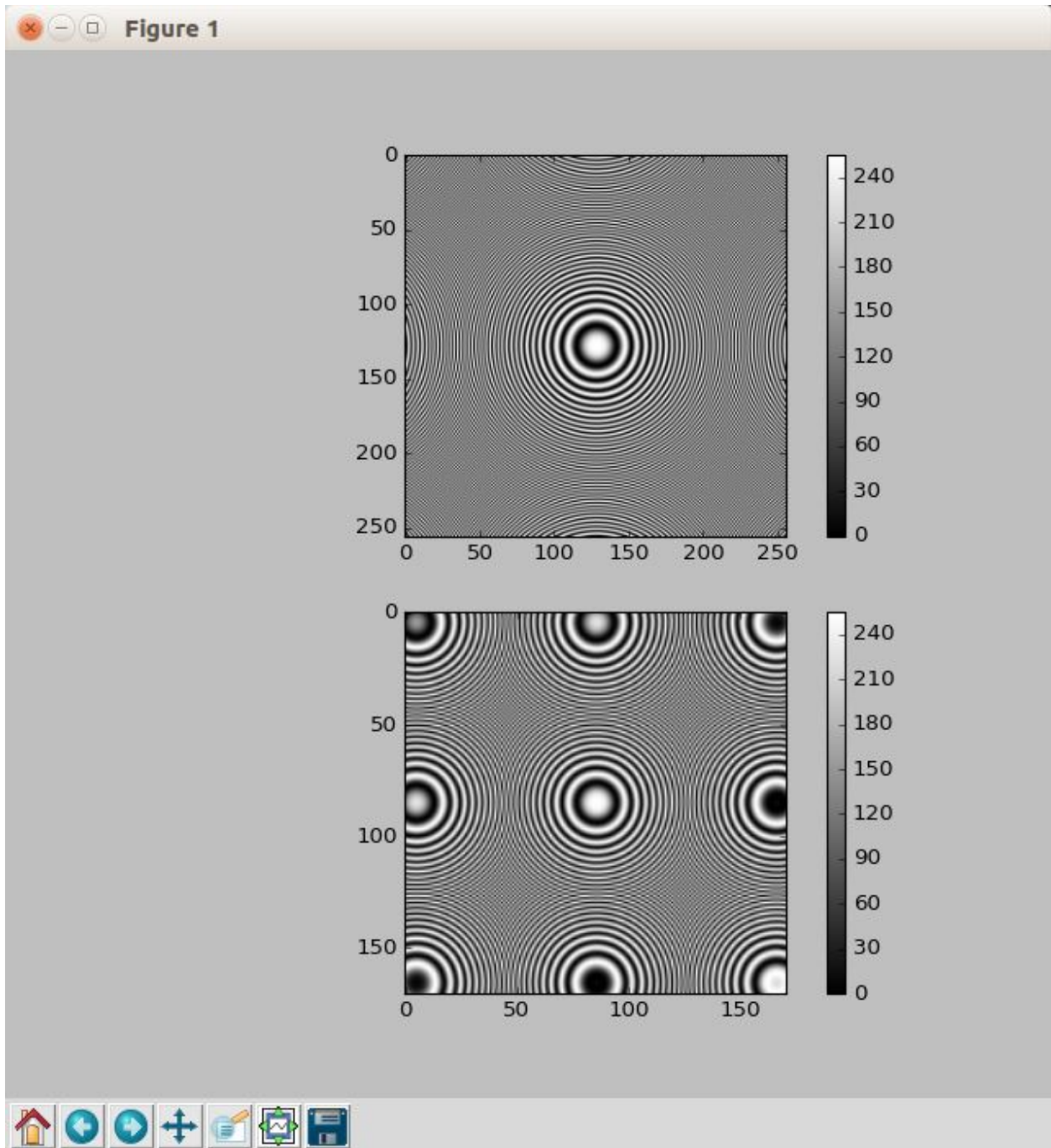

Original Image

Image compressed by keeping d=2

Image Compressed by keeping d=3

Color Map for compressed images

b) Image Enlargement using Bilinear Interpolation

File Name :-- myBilinearInterpolation.py contains function bin_interpol which performs bilinear interpolation on given image with new_shape provided as a parameter
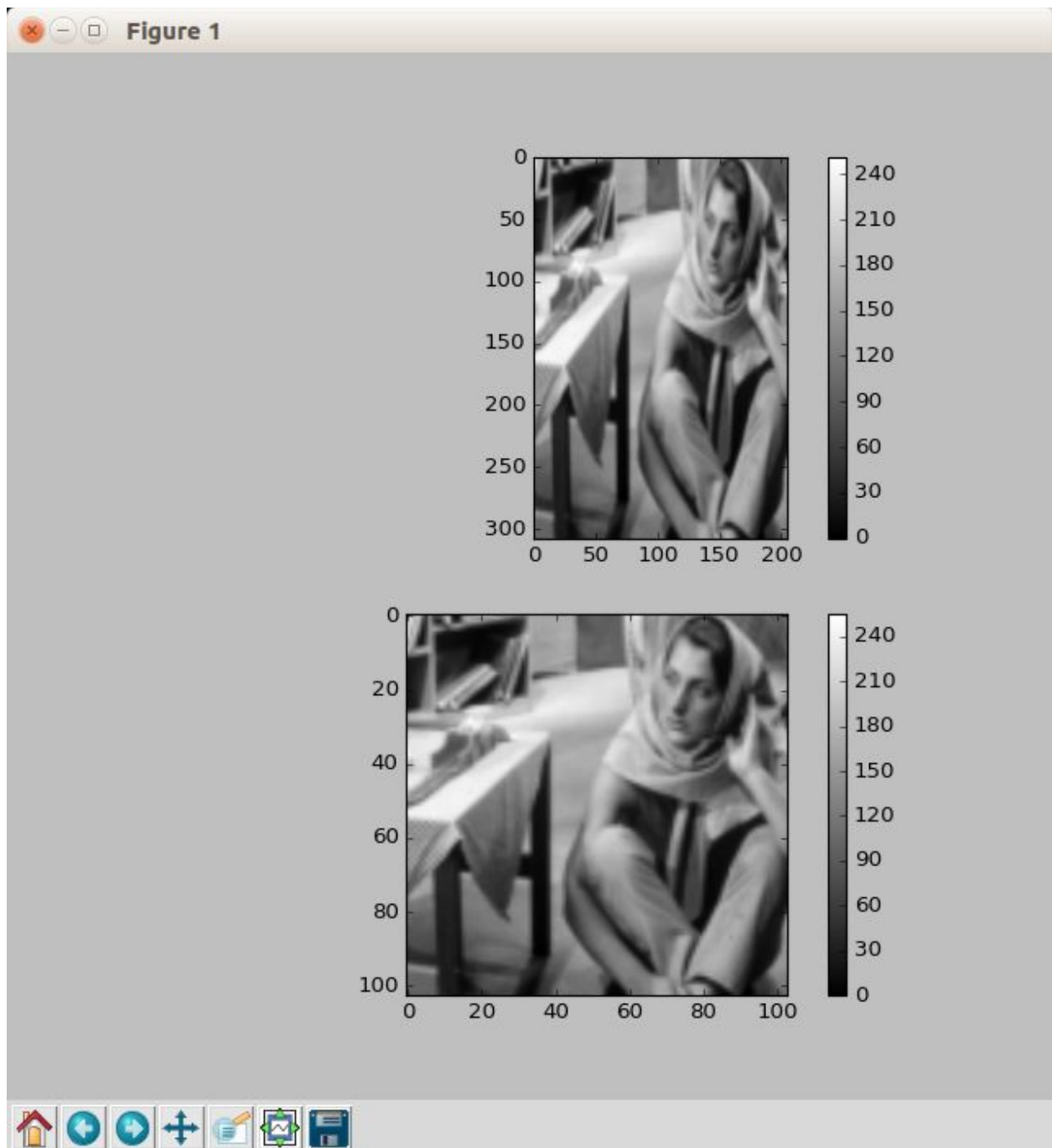bin_interpol(img_arr,new_shape):

Original Image

Enlarged Image

ColorMap of Original and enlarged image
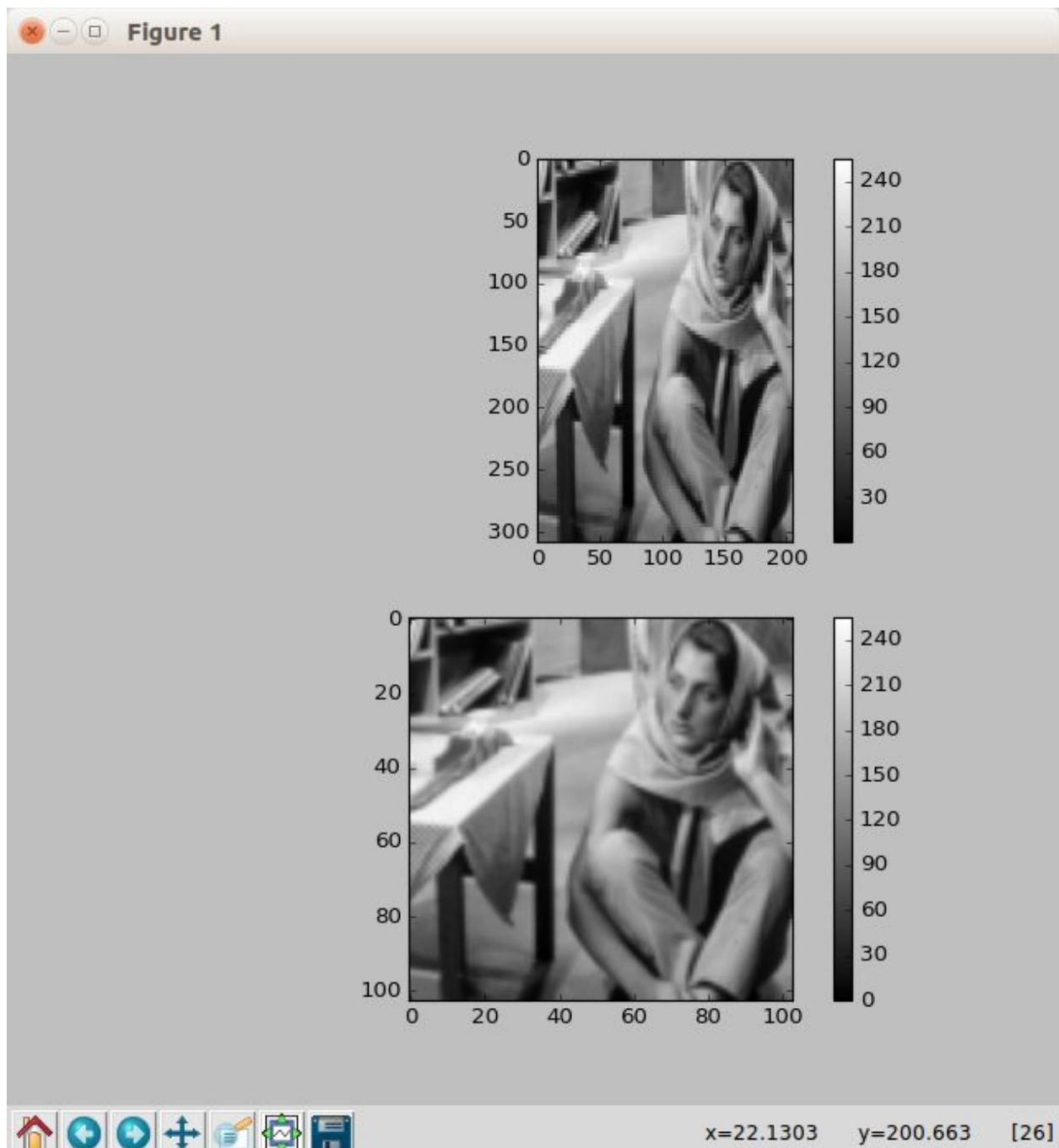
c) Image Enlargement using Nearest-Neighbor Interpolation

File Name :-- myNearestNeighborInterpolation.py contains method near_neighbour() which performs nearest_neighbour interpolation on given image with new_shape provided as a parameter near_neighbour(img_arr,new_shape)

Original Image

Image Resized using Nearest Neighbour

ColorMap of original and Resized image