### **Table of Contents**

MyMainScript	1
Q1(a) Image Shrinking	1
Q1(b) Image Enlargement using Bilinear Interpolation	3
O1(c) Image Enlargement using Nearest Neighbor Interpolation	4

## **MyMainScript**

```
%Members:
    %Bhishma Dedhia (16D170005)
    %Sarthak Consul(16D100012)
    %Parthasarathi Khirwadkar(16D070001)

tic;

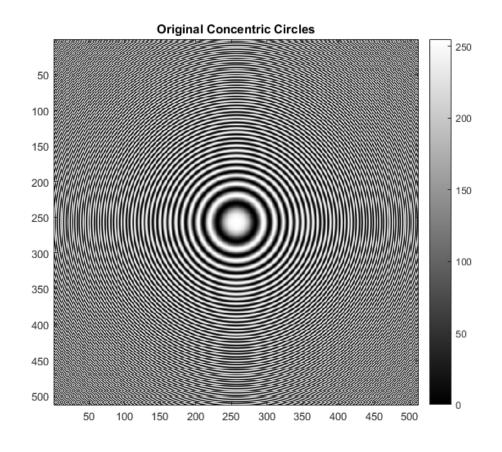
% reading input images
barbara = imread('../data/barbaraSmall.png');
concentricC_in=imread('../data/circles_concentric.png');
toc;

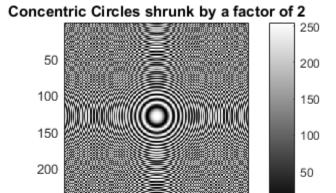
Elapsed time is 0.014372 seconds.
```

## Q1(a) Image Shrinking

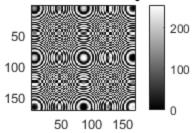
```
tic;
shrunk2_cc = myShrinkImageByFactorD(concentricC_in,2);
shrunk3_cc = myShrinkImageByFactorD(concentricC_in,3);
my_imshow(concentricC_in, 'Original Concentric Circles');
my_imshow(shrunk2_cc, 'Concentric Circles shrunk by a factor of 2');
my_imshow(shrunk3_cc, 'Concentric Circles shrunk by a factor of 3');
toc;

Elapsed time is 0.904130 seconds.
```





### oncentric Circles shrunk by a factor of 3



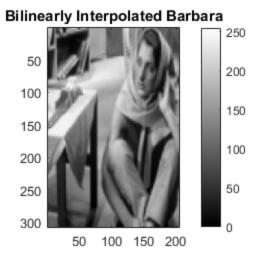
# Q1(b) Image Enlargement using Bilinear Interpolation

```
tic;
my_imshow(barbara, 'Original Barbara');
op = myBilinearInterpolation(barbara);
my_imshow(op, 'Bilinearly Interpolated Barbara')
toc;

Elapsed time is 0.505455 seconds.
```

#### Original Barbara





# Q1(c) Image Enlargement using Nearest Neighbor Interpolation

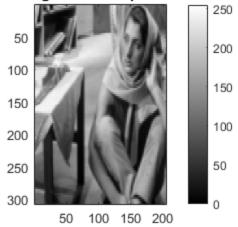
```
tic;
my_imshow(barbara, 'Original Barbara');
op = myNearestNeighborInterpolation(barbara);
my_imshow(op, 'Nearest Neighbour-Interpolated Barbara')
toc;

Elapsed time is 0.540726 seconds.
```

#### Original Barbara



### Nearest Neighbour-Interpolated Barbara



Published with MATLAB® R2017a