

MATLAB Implementation

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Course Code: Image Processing and Analysis

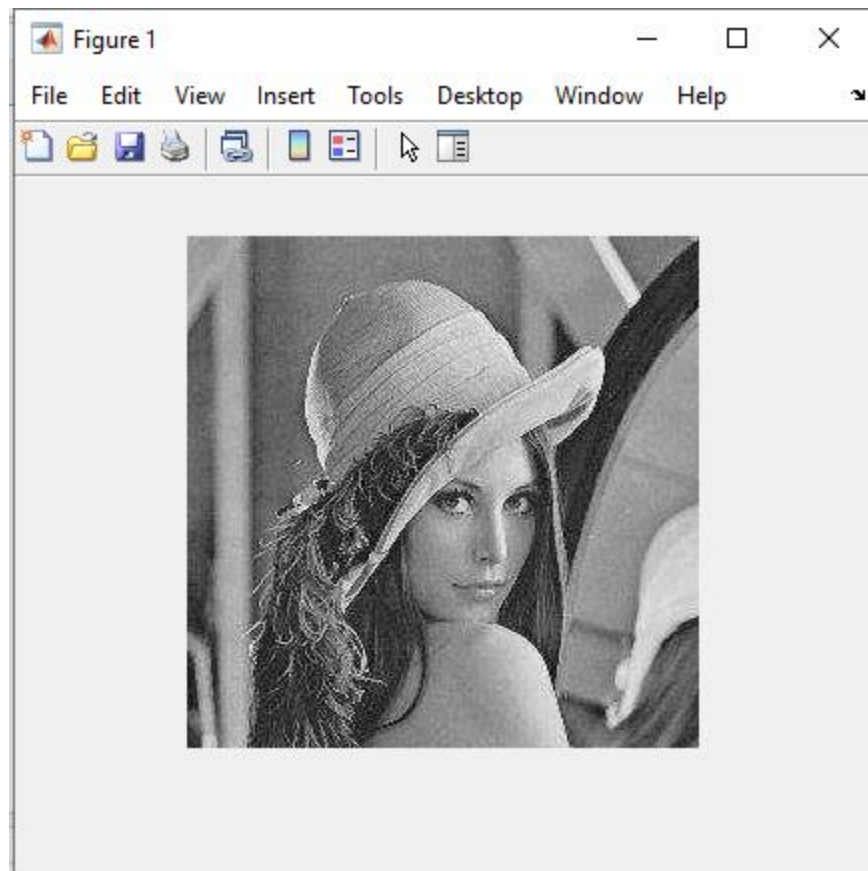
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MATLAB Implementation

Task 1

Implement conversion on lena grayscale image with data class uint8 and convert it to double, then scale the double to scaled double with min 0.2 and max 0.4.

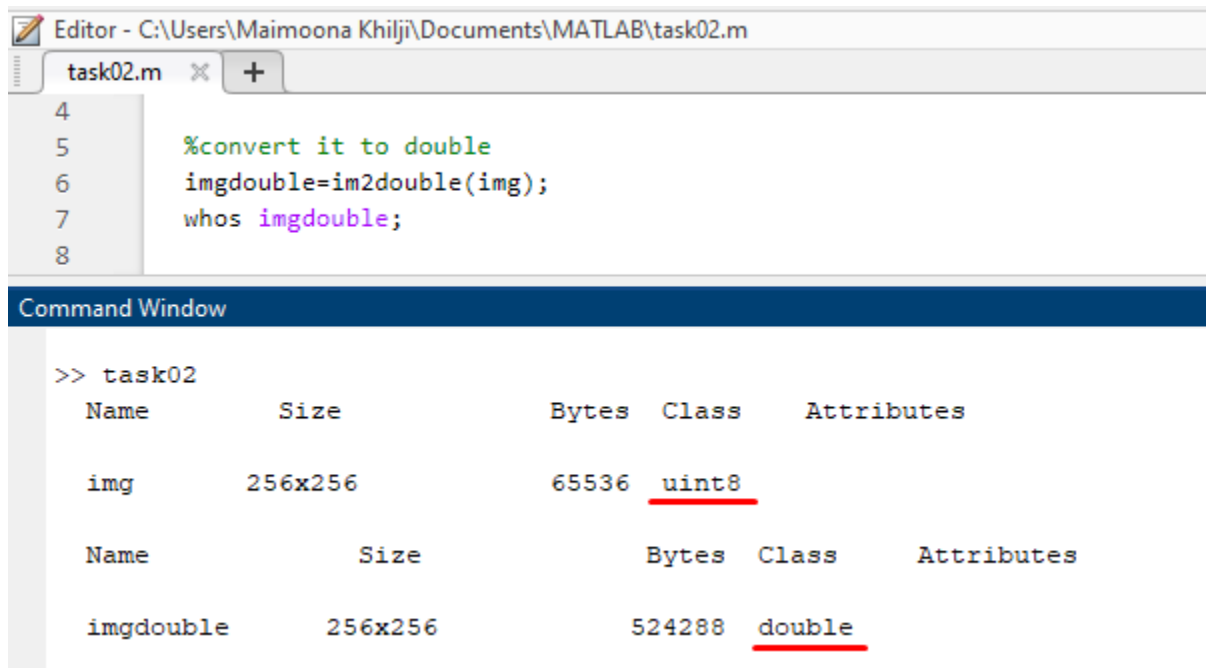


Reading Images (in uint8):

```
Editor - C:\Users\Maimoona Khilji\Documents\MATLAB\task02.m
task02.m  x  +
1      %Read Image
2      img=imread('Lenna_Grayscale.jpg');
3      whos img;
4
5
```

Name	Size	Bytes	Class	Attributes
img	256x256	65536	uint8	

Converting it to double:



The screenshot shows the MATLAB Editor with a file named `task02.m`. The code in the editor is as follows:

```
4
5 %convert it to double
6 imgdouble=im2double(img);
7 whos imgdouble;
8
```

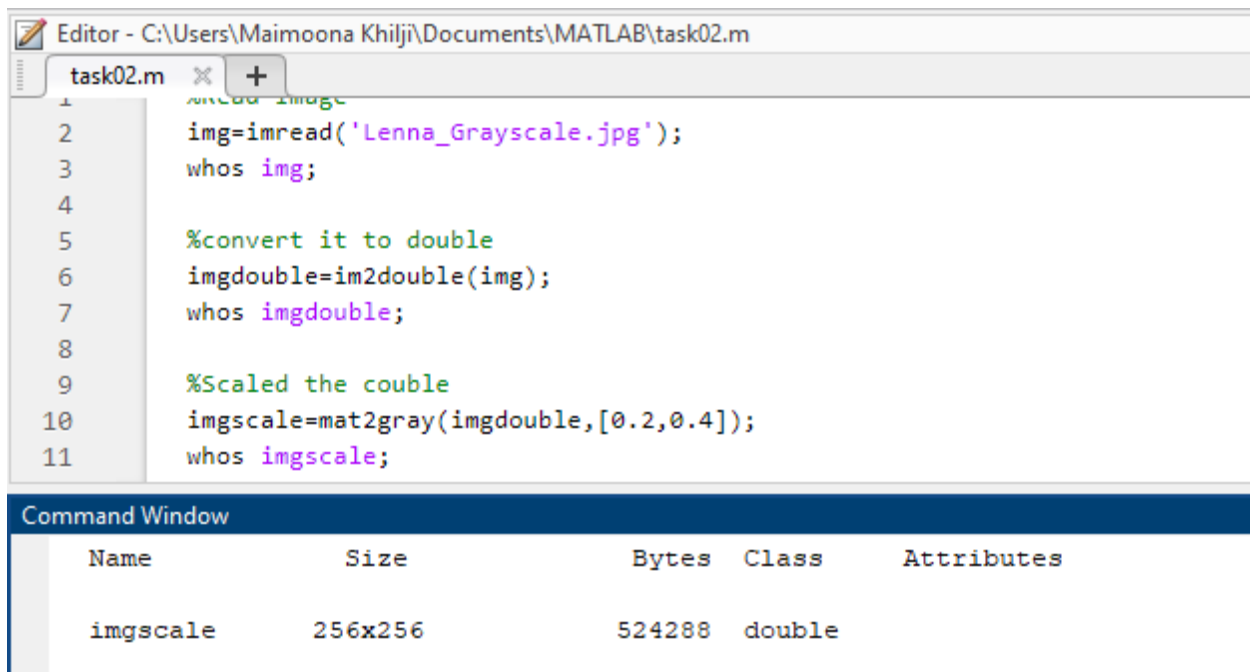
Below the editor is the Command Window, which displays the output of the `whos` command:

```
>> task02
```

Name	Size	Bytes	Class	Attributes
img	256x256	65536	<u>uint8</u>	

Name	Size	Bytes	Class	Attributes
imgdouble	256x256	524288	<u>double</u>	

Scaled the double with min max value:



The screenshot shows the MATLAB Editor with a file named `task02.m`. The code in the editor is as follows:

```
1 %read image
2 img=imread('Lenna_Grayscale.jpg');
3 whos img;
4
5 %convert it to double
6 imgdouble=im2double(img);
7 whos imgdouble;
8
9 %Scaled the couble
10 imgscale=mat2gray(imgdouble,[0.2,0.4]);
11 whos imgscale;
```

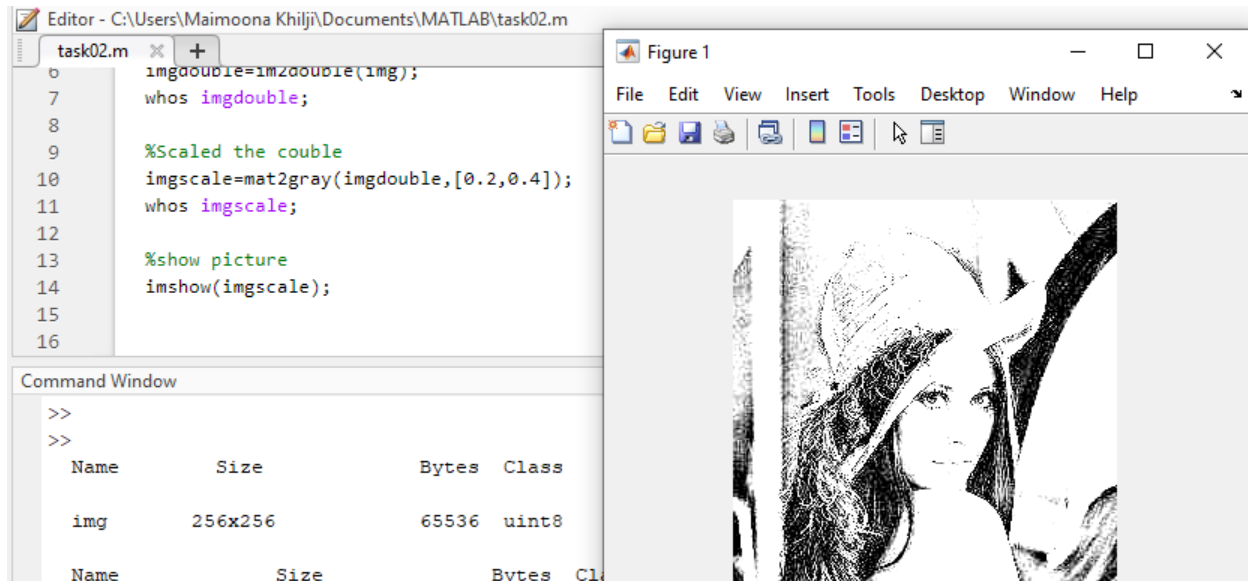
Below the editor is the Command Window, which displays the output of the `whos` command:

Name	Size	Bytes	Class	Attributes
imgscale	256x256	524288	double	

Task2:

Take the same converted image and convert its data class to binary and display the image before and after each conversion.

Show image:



Covert the data class to binary and then show:

