

# Shri Ramdeobaba College of Engineering and Management

## Nagpur, 440013

### Department of Computer Engineering

#### FDVIP Lab

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**AIM - To study and perform basic operations used in image processing.**

1. Reading an image.
2. Displaying an image in color mode.
3. Displaying an image in grayscale mode.
4. Saving an image

## Importing Dependencies

```
import cv2
import numpy as np
```

## 1. Reading an image

### 1.A. Reading an Image in Color Mode



```
lena_image = cv2.imread('../data/lena.png', 1)

cv2.imshow('Lena', lena_image)
```

### 1.B. Reading an Image in Grayscale Mode

```
lena_image_gray = cv2.imread('../data/lena.png', cv2.IMREAD_GRAYSCALE) # 0 instead of cv2.  
cv2.imshow('Lena', lena_image_gray)
```

## Output

Original Image	Grayscale Image
 <p>Image Specs : 512x512x3</p>	 <p>Image Specs : 512x512</p>

## 2. Displaying an image in color mode

```
cv2.imshow('Lena', lena_image)
```

## 3. Displaying an image in grayscale mode

```
cv2.imshow('Lena', lena_image_gray)
```

## 4. Saving an image

```
cv2.imwrite('../data/lena_og.png', lena_image)  
cv2.imwrite('../data/lena_gray.png', lena_image_gray)
```