```
import numpy as np
```

```
onesarr=np.ones((5,5),dtype=int)
```

```
onesarr
```

```
array([[1, 1, 1, 1, 1],
       [1, 1, 1, 1, 1],
       [1, 1, 1, 1, 1],
       [1, 1, 1, 1, 1],
       [1, 1, 1, 1, 1]])
```

```
zerosarr=np.zeros((5,3),dtype=int)
```

```
zerosarr
```

```
array([[0, 0, 0],
       [0, 0, 0],
       [0, 0, 0],
       [0, 0, 0],
       [0, 0, 0]])
```

```
onesarr *255
```

```
array([[255, 255, 255, 255, 255],
       [255, 255, 255, 255, 255],
       [255, 255, 255, 255, 255],
       [255, 255, 255, 255, 255],
       [255, 255, 255, 255, 255]])
```

```
import matplotlib as plt
```

```
%matplotlib inline
```

```
from PIL import Image
```

```
img=Image.open(r'C:\Users\ttwrd\OneDrive\Pictures\akhila.jpg')
```

```
type(img)
```

```
PIL.JpegImagePlugin.JpegImageFile
```

```
imgarrr=np.asarray(img)
```

```
imgarrr
```

```
array([[[13, 26, 34],
        [13, 26, 34],
        [13, 26, 34],
        ...,
        [17,  8, 13],
```

```
        [17,  8, 13],
        [17,  8, 13]],

       [[14, 27, 35],
        [14, 27, 35],
        [14, 27, 35],
        ...,
        [17,  8, 13],
        [17,  8, 13],
        [17,  8, 13]],

       [[14, 27, 35],
        [14, 27, 35],
        [14, 27, 35],
        ...,
        [17,  8, 13],
        [17,  8, 13],
        [17,  8, 13]],

       ...,

       [[ 8, 11, 18],
        [ 8, 11, 18],
        [ 8, 11, 18],
        ...,
        [ 2,  2,  4],
        [ 2,  2,  4],
        [ 2,  2,  4]],

       [[ 2,  5, 12],
        [ 2,  5, 12],
        [ 2,  5, 12],
        ...,
        [ 1,  1,  3],
        [ 1,  1,  3],
        [ 1,  1,  3]],

       [[ 4,  4, 12],
        [ 4,  4, 12],
        [ 4,  4, 12],
        ...,
        [ 1,  1,  3],
        [ 1,  1,  3],
        [ 1,  1,  3]]], dtype=uint8)
```

```
type(imgarrr)
```

```
numpy.ndarray
```

```
import matplotlib.pyplot as plt
```

```
plt.imshow(imgarrr)
plt.show()
```


```
imgarrr.shape
```

```
(170, 297, 3)
```

```
img_red=imgarrr.copy()
```

```
imgarrr==img_red
```

```
array([[[ True,  True,  True],
        [ True,  True,  True],
        [ True,  True,  True],
        ...,
        [ True,  True,  True],
        [ True,  True,  True],
        [ True,  True,  True]],

       [[ True,  True,  True],
        [ True,  True,  True],
        [ True,  True,  True],
        ...,
        [ True,  True,  True],
        [ True,  True,  True],
        [ True,  True,  True]],

       [[ True,  True,  True],
        [ True,  True,  True],
        [ True,  True,  True],
```

```
         ...,
         [ True,  True,  True],
         [ True,  True,  True],
         [ True,  True,  True]],

        ...,

        [[ True,  True,  True],
         [ True,  True,  True],
         [ True,  True,  True],
         ...,
         [ True,  True,  True],
         [ True,  True,  True],
         [ True,  True,  True]],

        [[ True,  True,  True],
         [ True,  True,  True],
         [ True,  True,  True],
         ...,
         [ True,  True,  True],
         [ True,  True,  True],
         [ True,  True,  True]],

        [[ True,  True,  True],
         [ True,  True,  True],
         [ True,  True,  True],
         ...,
         [ True,  True,  True],
         [ True,  True,  True],
         [ True,  True,  True]]])
```

```
plt.imshow(img_red)
```

```
<matplotlib.image.AxesImage at 0x25c5612be90>
```

```
plt.show()
```


0
20
40
60
80
100
120
140
160
0
50
100
150
200
250