In [1]:
```
import numpy as np
```

In [2]:
```
ones_arr = np.ones((5,5),dtype=int)
```

In [3]:
```
ones_arr
```

Out[3]:
```
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]])
```

In [4]:
```
ones_arr * 255
```

Out[4]:
```
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]])
```

In [5]:
```
import matplotlib.
pyplot as plt
```

In [6]:
```
#!matplotlib inline # all the graph should keep inside the line
```

In [7]:
```
from PIL import Image # python imaging library
```

In [8]:
```
#lion_img = Image.open('C:\Users\A3MAX SOFTWARE TECH\Desktop\WORK\1. KODI WORK\1
```

In [9]:
```
laptop = Image.open(r"C:\Users\shaik\Downloads\laptop.webp")
```

In [10]:
```
laptop
```

Out[10]:

In [11]:
```
lion = Image.open(r"C:\Users\shaik\Downloads\lion.webp")
```

In [12]:
```
lion
```

Out[12]:

In [13]:
```
#pic = Image.open(r'C:\Users\A3MAX SOFTWARE TECH\Desktop\WORK\1. KODI WORK\1. NA
```

In [14]:
```
#pic
```

In [15]:
```
#my_img = Image.open(r'C:\Users\A3MAX SOFTWARE TECH\Desktop\WORK\1. KODI WORK\1.
```

In [16]:
```
#my_img
```

In [17]:
```
type(lion)
```

Out[17]:
```
PIL.WebPImagePlugin.WebPImageFile
```

In [19]:
```
lion= np.asarray(lion)
lion
```

Out[19]:
```
array([[[110,  87,  49],
        [110,  87,  49],
        [110,  87,  49],
        ...,
        [ 94,  69,  43],
        [ 94,  69,  43],
        [ 94,  69,  43]],

       [[113,  89,  52],
        [113,  89,  52],
        [113,  89,  52],
        ...,
        [ 96,  71,  45],
        [ 96,  71,  45],
        [ 96,  71,  45]],

       [[116,  93,  55],
        [116,  93,  55],
        [116,  93,  55],
        ...,
        [ 96,  71,  45],
        [ 96,  71,  45],
        [ 96,  71,  45]],

       ...,

       [[194, 149,  93],
        [189, 143,  88],
        [186, 141,  85],
        ...,
        [190, 137,  82],
        [190, 137,  82],
        [190, 137,  82]],

       [[198, 152,  97],
        [191, 145,  90],
        [189, 143,  88],
        ...,
        [190, 137,  82],
        [190, 137,  82],
        [190, 137,  82]],

       [[199, 152,  95],
        [192, 145,  88],
        [190, 142,  86],
        ...,
        [190, 137,  84],
        [190, 137,  84],
        [190, 137,  84]]], dtype=uint8)
```

In [20]:
```
lion
lion
```

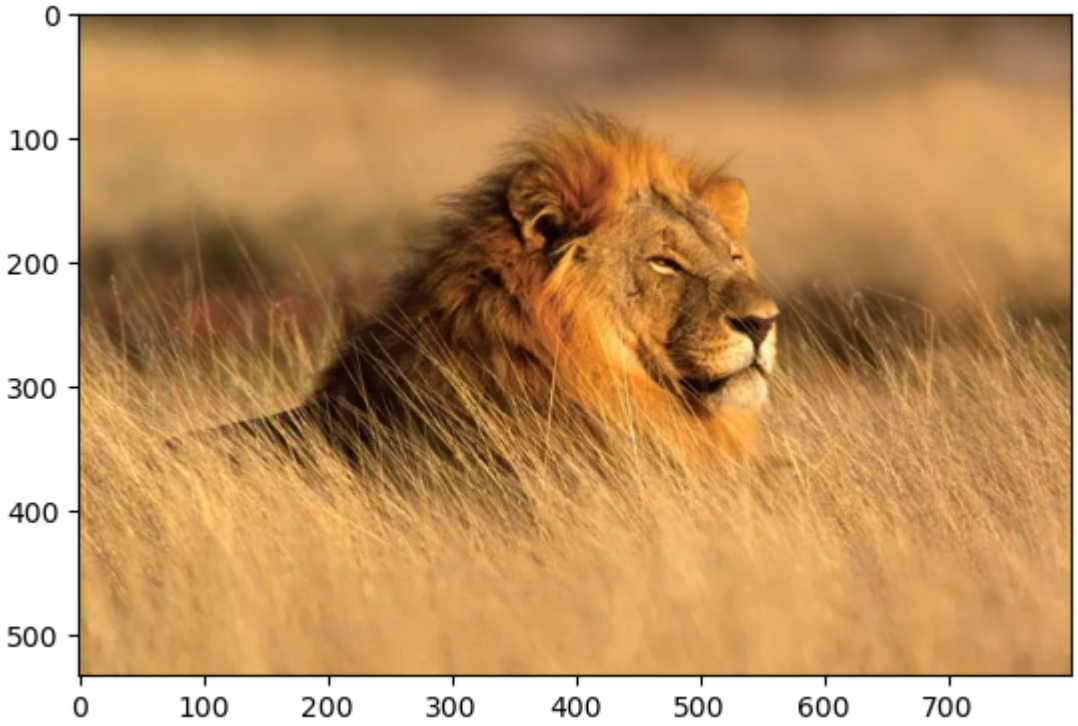
Out[20]:
```
array([[[110,  87,  49],
        [110,  87,  49],
        [110,  87,  49],
        ...,
        [ 94,  69,  43],
        [ 94,  69,  43],
        [ 94,  69,  43]],

       [[113,  89,  52],
        [113,  89,  52],
        [113,  89,  52],
        ...,
        [ 96,  71,  45],
        [ 96,  71,  45],
        [ 96,  71,  45]],

       [[116,  93,  55],
        [116,  93,  55],
        [116,  93,  55],
        ...,
        [ 96,  71,  45],
        [ 96,  71,  45],
        [ 96,  71,  45]],

       ...,

       [[194, 149,  93],
        [189, 143,  88],
        [186, 141,  85],
        ...,
        [190, 137,  82],
        [190, 137,  82],
        [190, 137,  82]],

       [[198, 152,  97],
        [191, 145,  90],
        [189, 143,  88],
        ...,
        [190, 137,  82],
        [190, 137,  82],
        [190, 137,  82]],

       [[199, 152,  95],
        [192, 145,  88],
        [190, 142,  86],
        ...,
        [190, 137,  84],
        [190, 137,  84],
        [190, 137,  84]]], dtype=uint8)
```

In [21]:
```
type(lion)
```

Out[21]:
```
numpy.ndarray
```

In [22]:
```
plt.imshow(lion)
```

Out[22]:
```
<matplotlib.image.AxesImage at 0x2823dac5940>
```



In [23]:
```
lion.shape
```

Out[23]: (533, 800, 3)

In [24]:
```
lion = lion.copy()
```

In [25]:
```
lion
```

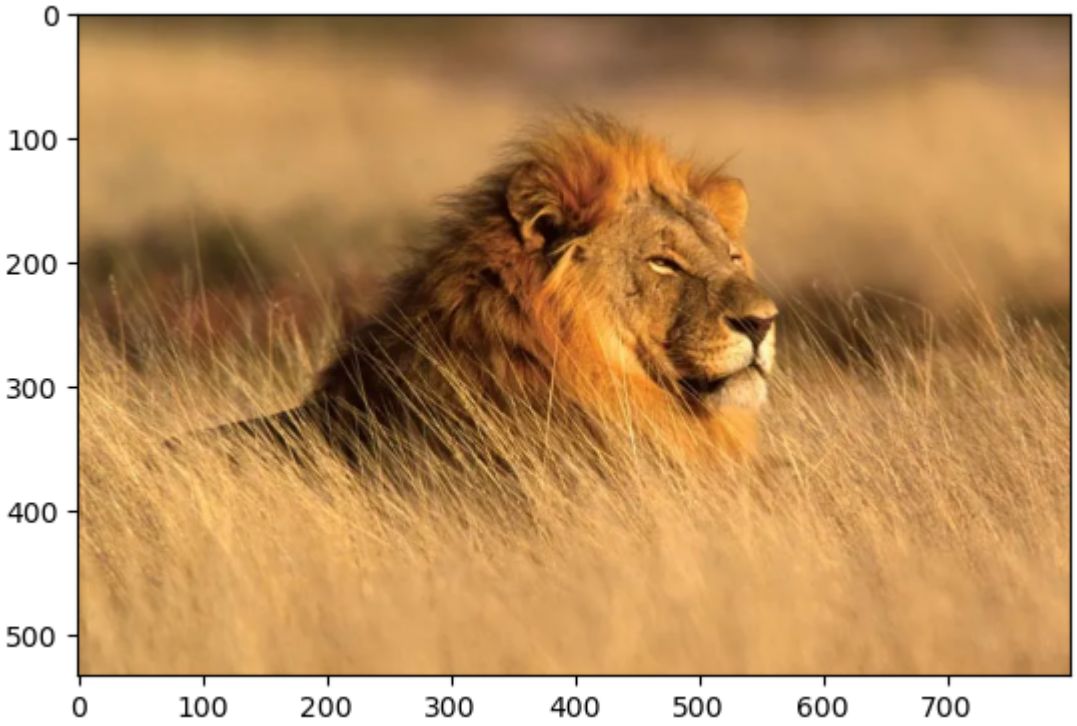
Out[25]:
```
array([[[110,  87,  49],
        [110,  87,  49],
        [110,  87,  49],
        ...,
        [ 94,  69,  43],
        [ 94,  69,  43],
        [ 94,  69,  43]],

       [[113,  89,  52],
        [113,  89,  52],
        [113,  89,  52],
        ...,
        [ 96,  71,  45],
        [ 96,  71,  45],
        [ 96,  71,  45]],

       [[116,  93,  55],
        [116,  93,  55],
        [116,  93,  55],
        ...,
        [ 96,  71,  45],
        [ 96,  71,  45],
        [ 96,  71,  45]],

       ...,

       [[194, 149,  93],
        [189, 143,  88],
        [186, 141,  85],
        ...,
        [190, 137,  82],
        [190, 137,  82],
        [190, 137,  82]],

       [[198, 152,  97],
        [191, 145,  90],
        [189, 143,  88],
        ...,
        [190, 137,  82],
        [190, 137,  82],
        [190, 137,  82]],

       [[199, 152,  95],
        [192, 145,  88],
        [190, 142,  86],
        ...,
        [190, 137,  84],
        [190, 137,  84],
        [190, 137,  84]]], dtype=uint8)
```

In [26]:
```
lion ==lion
```

Out[26]:
```
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]]])
```

In [27]:
```
plt.imshow(lion)
```

Out[27]:
```
<matplotlib.image.AxesImage at 0x2823df0afd0>
```

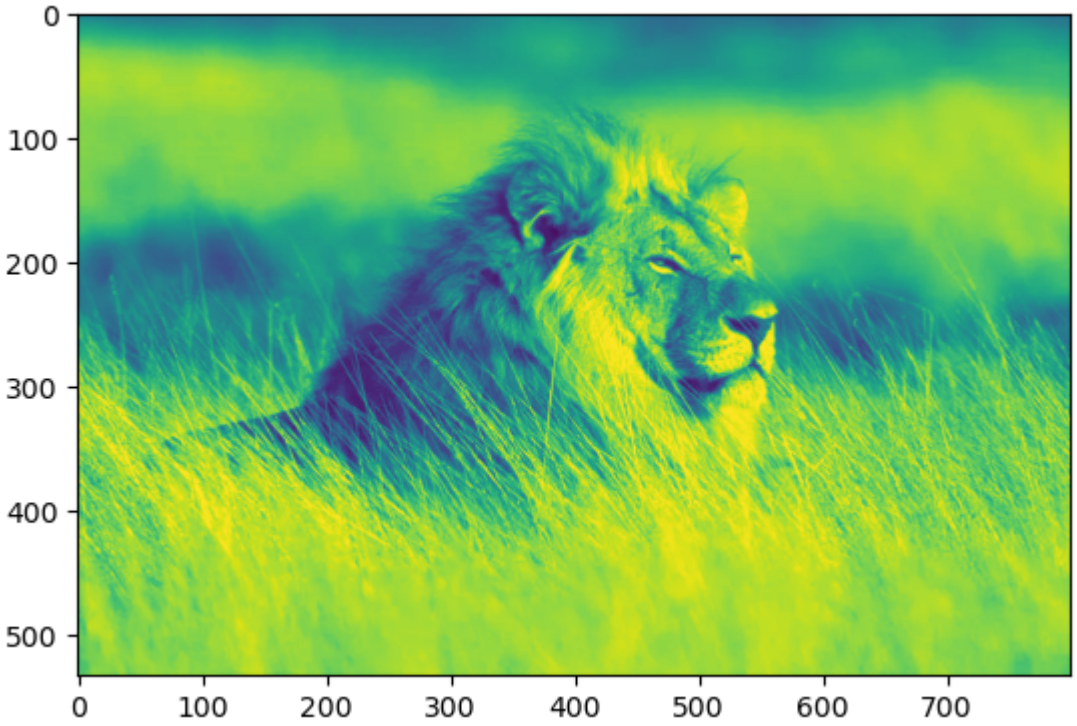


In [29]:
```
lion.shape
```

Out[29]: (533, 800, 3)

In [30]:
```
plt.imshow(lion[:,:,0])
```

Out[30]: <matplotlib.image.AxesImage at 0x2823dfae850>

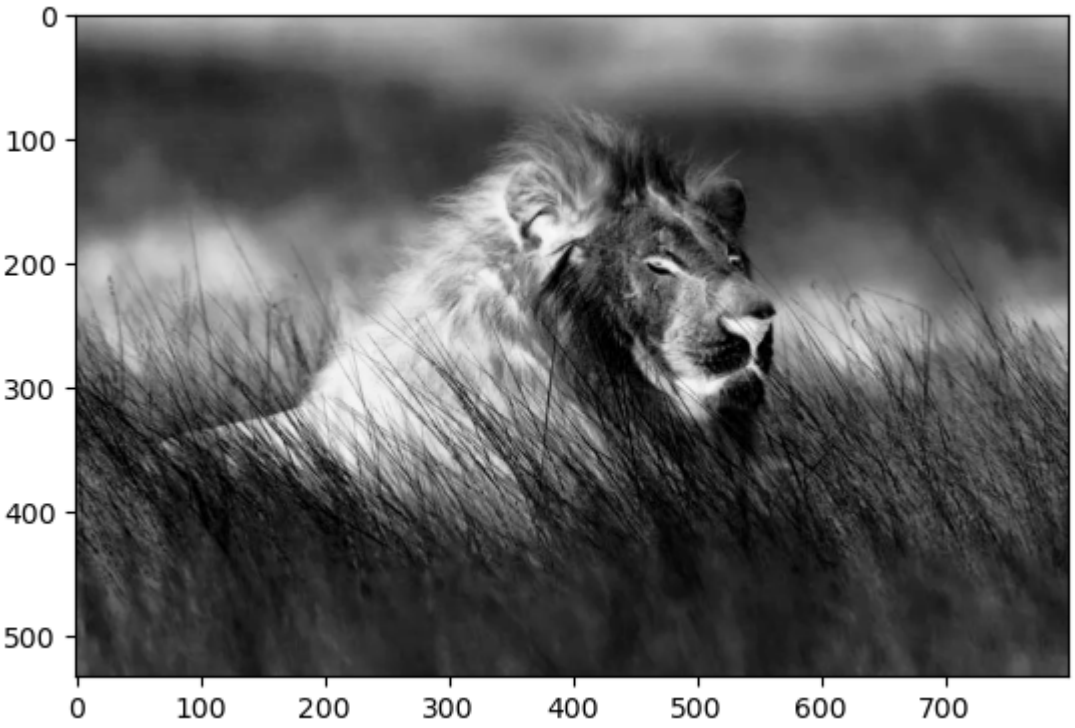


In [31]:
```
lion[:,:,0]
```

Out[31]:
```
array([[110, 110, 110, ...,  94,  94,  94],
       [113, 113, 113, ...,  96,  96,  96],
       [116, 116, 116, ...,  96,  96,  96],
       ...,
       [194, 189, 186, ..., 190, 190, 190],
       [198, 191, 189, ..., 190, 190, 190],
       [199, 192, 190, ..., 190, 190, 190]], dtype=uint8)
```

In [33]:
```
plt.imshow(lion[:,:,0],cmap='Greys')
```

Out[33]:
```
<matplotlib.image.AxesImage at 0x2823e2bdd10>
```

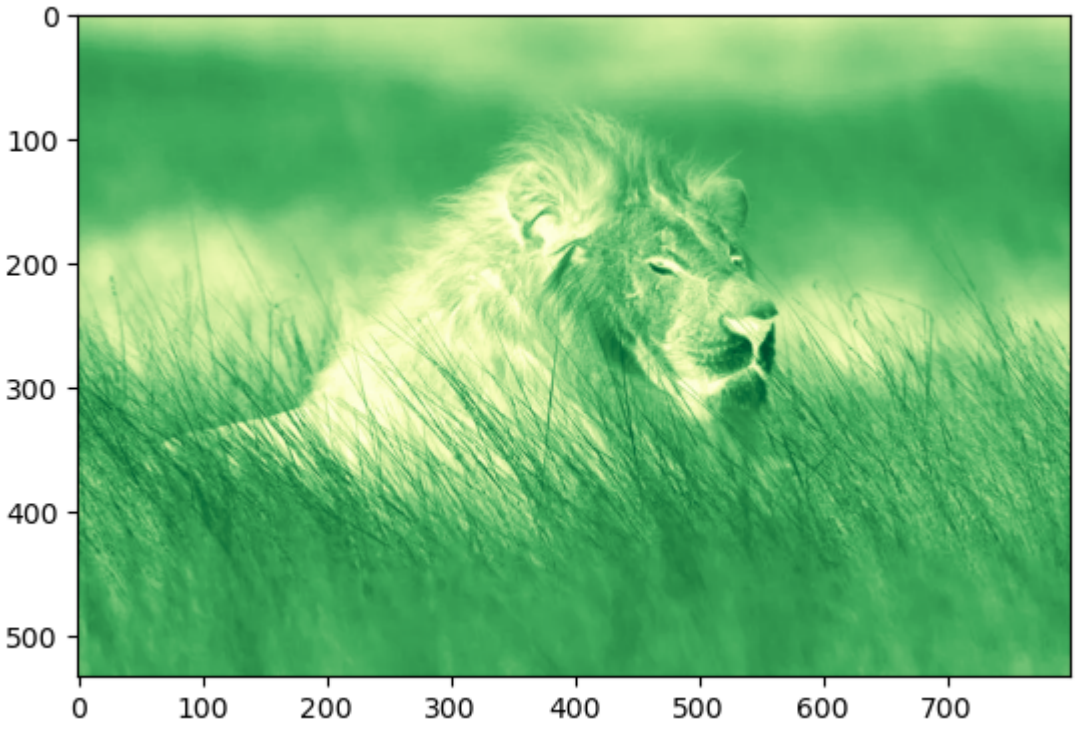


In [34]:
```
plt.imshow(lion[:,:,1], cmap='grey')
```

Out[34]:
```
<matplotlib.image.AxesImage at 0x2823e344b90>
```

In [35]:
```
plt.imshow(lion[:,:,1], cmap='YlGn')
#plt.show()
```

Out[35]: <matplotlib.image.AxesImage at 0x2823e3a7890>



In [36]:
```
lion[:,:,0]
```

Out[36]:
```
array([[110, 110, 110, ...,  94,  94,  94],
       [113, 113, 113, ...,  96,  96,  96],
       [116, 116, 116, ...,  96,  96,  96],
       ...,
       [194, 189, 186, ..., 190, 190, 190],
       [198, 191, 189, ..., 190, 190, 190],
       [199, 192, 190, ..., 190, 190, 190]], dtype=uint8)
```

In [37]:
```
lion[:,:,1]
```

Out[37]:
```
array([[ 87,  87,  87, ...,  69,  69,  69],
       [ 89,  89,  89, ...,  71,  71,  71],
       [ 93,  93,  93, ...,  71,  71,  71],
       ...,
       [149, 143, 141, ..., 137, 137, 137],
       [152, 145, 143, ..., 137, 137, 137],
       [152, 145, 142, ..., 137, 137, 137]], dtype=uint8)
```

In [38]:
```
lion[:,:,2]
```

Out[38]:
```
array([[49, 49, 49, ..., 43, 43, 43],
       [52, 52, 52, ..., 45, 45, 45],
       [55, 55, 55, ..., 45, 45, 45],
       ...,
       [93, 88, 85, ..., 82, 82, 82],
       [97, 90, 88, ..., 82, 82, 82],
       [95, 88, 86, ..., 84, 84, 84]], dtype=uint8)
```

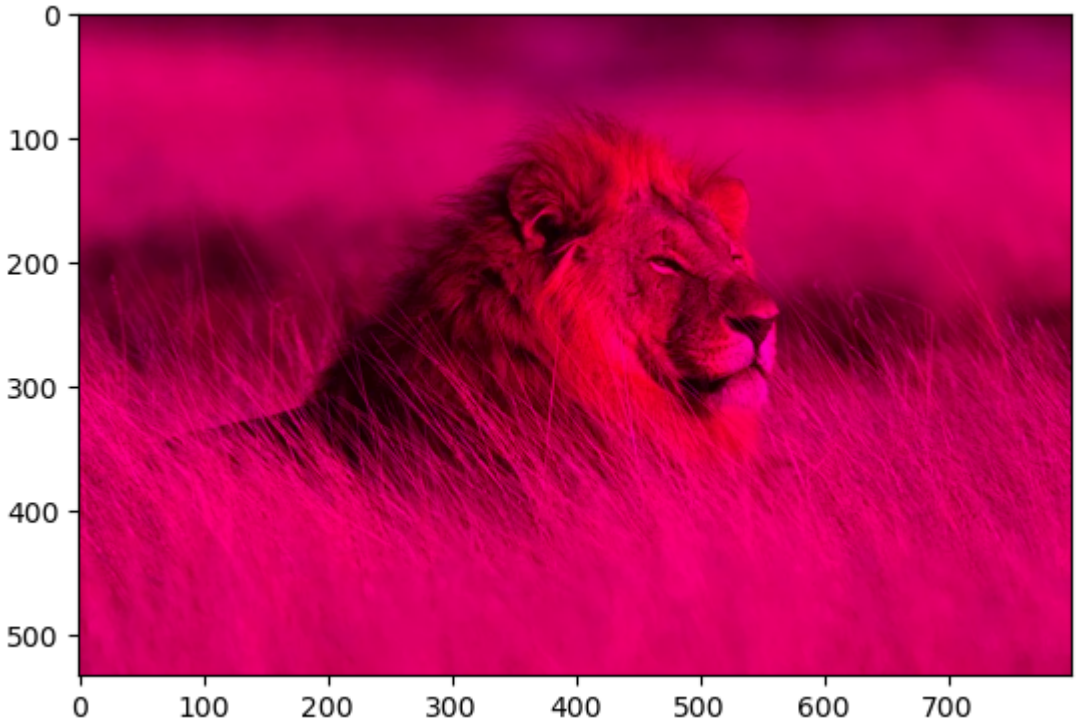
In [39]:
```
lion[:,:,1] = 0
```

In [40]:
```
lion[:,:,1]
```

Out[40]:
```
array([[0, 0, 0, ..., 0, 0, 0],
       [0, 0, 0, ..., 0, 0, 0],
       [0, 0, 0, ..., 0, 0, 0],
       ...,
       [0, 0, 0, ..., 0, 0, 0],
       [0, 0, 0, ..., 0, 0, 0],
       [0, 0, 0, ..., 0, 0, 0]], dtype=uint8)
```

In [41]:
```
plt.imshow(lion)
```

Out[41]:
```
<matplotlib.image.AxesImage at 0x2823e436210>
```



In [42]:
```
lion[:,:,2]
```

Out[42]:
```
array([[49, 49, 49, ..., 43, 43, 43],
       [52, 52, 52, ..., 45, 45, 45],
       [55, 55, 55, ..., 45, 45, 45],
       ...,
       [93, 88, 85, ..., 82, 82, 82],
       [97, 90, 88, ..., 82, 82, 82],
       [95, 88, 86, ..., 84, 84, 84]], dtype=uint8)
```

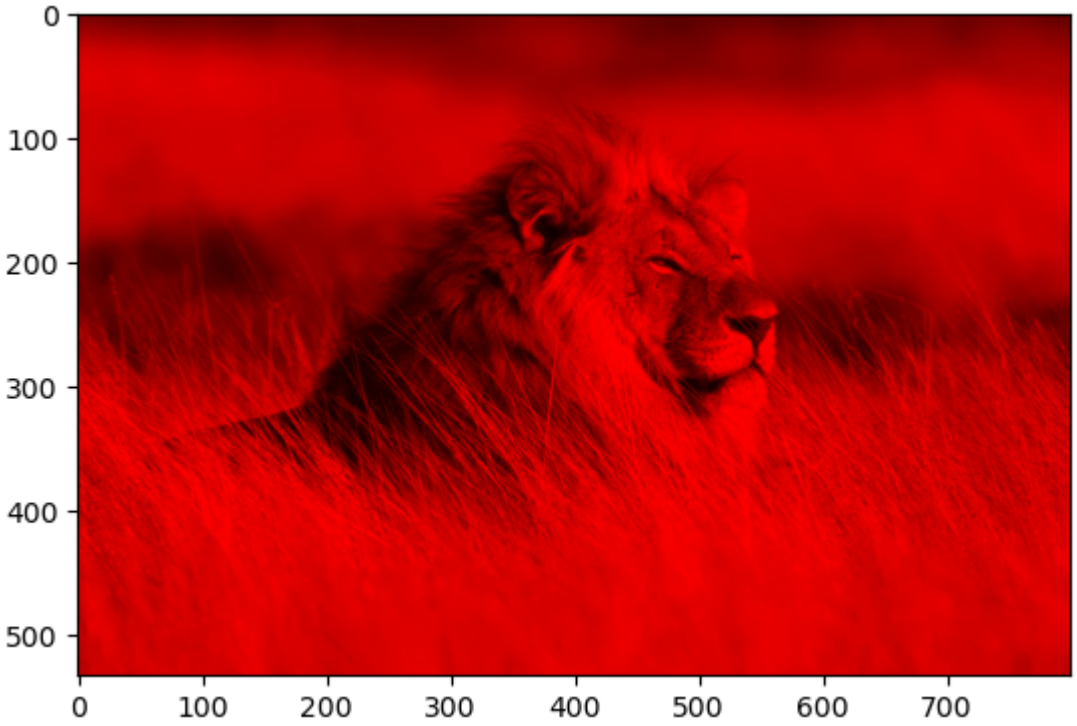
In [43]:
```
lion[:,:,2]  = 0
```

In [44]:
```
lion[:,:,2]
```

Out[44]:
```
array([[0, 0, 0, ..., 0, 0, 0],
       [0, 0, 0, ..., 0, 0, 0],
       [0, 0, 0, ..., 0, 0, 0],
       ...,
       [0, 0, 0, ..., 0, 0, 0],
       [0, 0, 0, ..., 0, 0, 0],
       [0, 0, 0, ..., 0, 0, 0]], dtype=uint8)
```

In [45]:
```
plt.imshow(lion)
```

Out[45]:
```
<matplotlib.image.AxesImage at 0x2823e4c8f50>
```



In [46]:
```
lion
```

Out[46]:
```
array([[[110,   0,   0],
        [110,   0,   0],
        [110,   0,   0],
        ...,
        [ 94,   0,   0],
        [ 94,   0,   0],
        [ 94,   0,   0]],

       [[113,   0,   0],
        [113,   0,   0],
        [113,   0,   0],
        ...,
        [ 96,   0,   0],
        [ 96,   0,   0],
        [ 96,   0,   0]],

       [[116,   0,   0],
        [116,   0,   0],
        [116,   0,   0],
        ...,
        [ 96,   0,   0],
        [ 96,   0,   0],
        [ 96,   0,   0]],

       ...,

       [[194,   0,   0],
        [189,   0,   0],
        [186,   0,   0],
        ...,
        [190,   0,   0],
        [190,   0,   0],
        [190,   0,   0]],

       [[198,   0,   0],
        [191,   0,   0],
        [189,   0,   0],
        ...,
        [190,   0,   0],
        [190,   0,   0],
        [190,   0,   0]],

       [[199,   0,   0],
        [192,   0,   0],
        [190,   0,   0],
        ...,
        [190,   0,   0],
        [190,   0,   0],
        [190,   0,   0]]], dtype=uint8)
```

In [ ]: