QUESTION 1

USING PIL

In [1]:
```
from PIL import Image
import requests
from io import BytesIO

url = requests.get('https://i.imgur.com/YZwMI6f.jpg')
img = Image.open(BytesIO(url.content))
img
```

Out[1]:

WIDTH AND SIZE

In [2]:
```
w,h = img.size
print("Width:",w)
print("Hieght:",h)
```

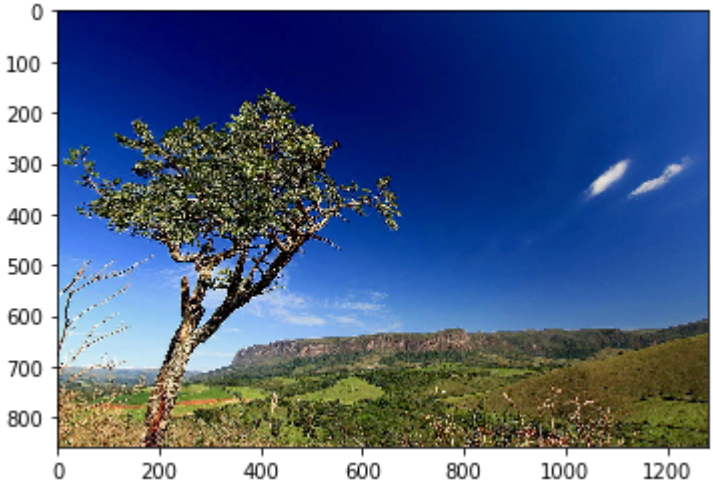
```
Width: 1280
Hieght: 857
```

SAVING IMAGE

In [3]:
```
img.save("PIL.jpg")
```

USING MATPLOTLIB

In [16]:
```
import matplotlib.image as mpimg
import matplotlib.pyplot as plt
img = mpimg.imread(r'C:\Users\sunee\Dropbox\Sem V\Image Processing\PIL.jpg')
imgplot = plt.imshow(img)
plt.show()
```



SAVING IMAGE

In [5]:
```
fig = plt.figure()
fig.savefig('matplotlib.jpg')
```

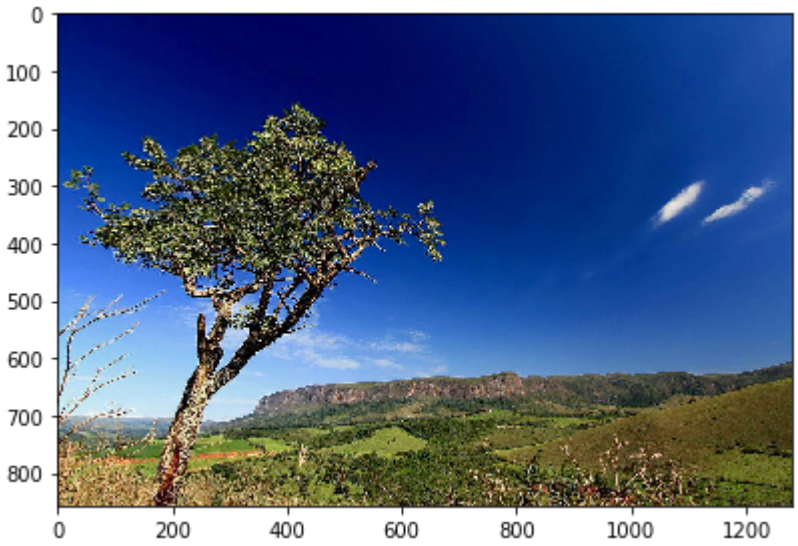
```
<Figure size 432x288 with 0 Axes>
```

USING SKIMAGE

In [6]:
```
import skimage.io
import skimage.viewer
img = skimage.io.imread(fname="PIL.jpg")
```

```
C:\Users\sunee\Anaconda3\lib\site-packages\skimage\viewer\utils\core.py:10: U
serWarning: Recommended matplotlib backend is `Agg` for full skimage.viewer f
unctionality.
  warn("Recommended matplotlib backend is `Agg` for full "
```

In [7]:
```
skimage.io.imshow(img)
skimage.io.show()
```



SAVING IMAGE

In [8]:
```
skimage.io.imsave("skimage.jpg",arr = img)
```

QUESTION 2

In [9]:
```
import numpy as np
rows = 512
cols = 512
image = open('barbara_gray.raw')
print(image)
```

```
<_io.TextIOWrapper name='barbara_gray.raw' mode='r' encoding='cp1252'>
```

In [10]:
```
img = np.fromfile(image, dtype = np.uint8, count = rows * cols)
```

In [11]:
```
print("1D Array Dimensions: ",img.ndim)
img.size
```

```
1D Array Dimensions:  1
```

Out[11]:
```
262144
```

CONVERTING 1D ARRAY TO 2D ARRAY

In [12]:
```
img.shape = (img.size//cols, cols)
print("2D Array Dimensions: ",img.ndim)
```

```
2D Array Dimensions:  2
```

SAVING RAW IMAGE

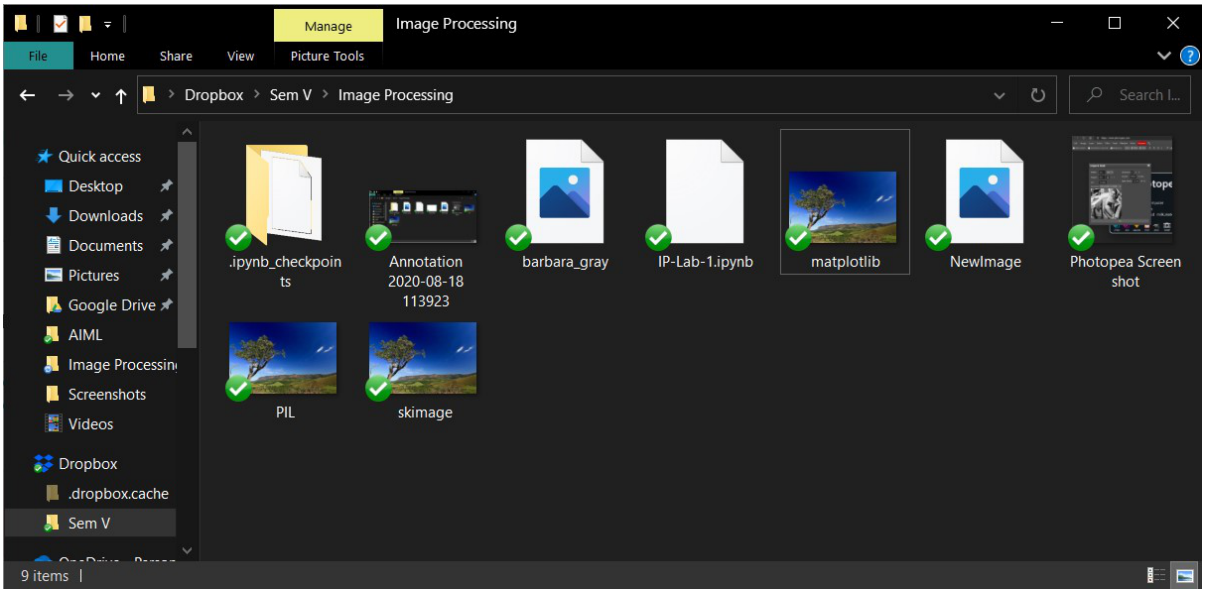
In [13]:
```
img.astype('int8').tofile('NewImage.raw')
image.close
```

Out[13]:
```
<function TextIOWrapper.close()>
```

SCREENSHOTS

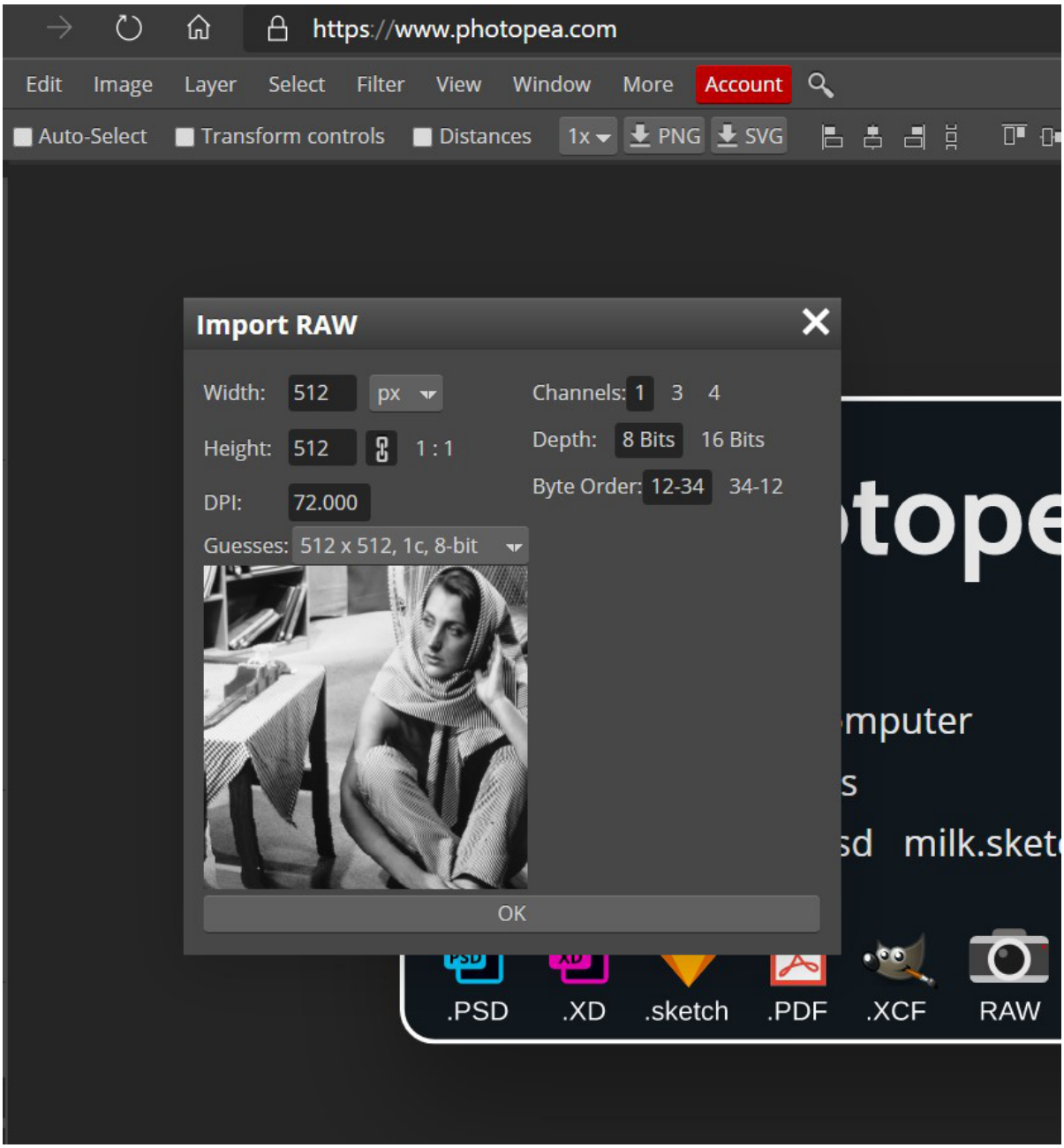
In [14]:
```
ss1 = Image.open("ss1.jpg")
ss1
```

Out[14]:



In [15]:
```
ss2 = Image.open("Photopea Screen shot.jpg")
ss2
```

Out[15]:



In [ ]: