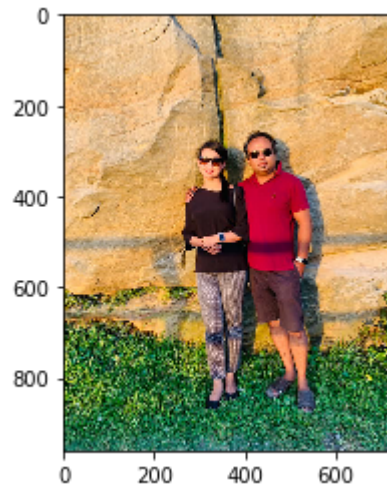


```
In [62]: import cv2  
import numpy as np  
import matplotlib.pyplot as plt
```

```
In [63]: img = cv2.imread('C:/Users/Anm Faisal/Desktop/Sunlight.jpg')
```

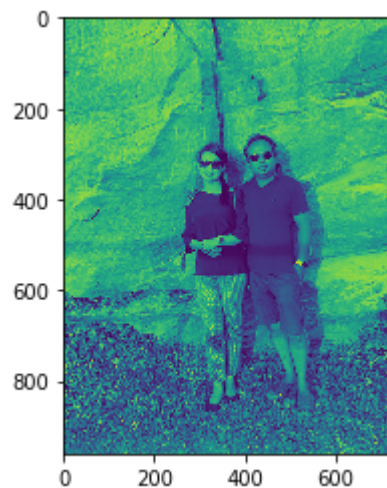
```
In [64]: image = cv2.cvtColor(img, cv2.COLOR_BGR2RGB)  
plt.imshow(image)
```

Out[64]: <matplotlib.image.AxesImage at 0xe6ecbf61d0>



```
In [66]: gray_image = cv2.cvtColor(img, cv2.COLOR_RGB2GRAY)  
plt.imshow(gray_image)
```

Out[66]: <matplotlib.image.AxesImage at 0xe6ecc56470>

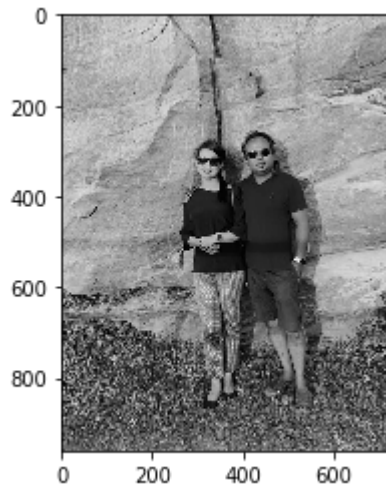


```
In [78]: ret,thresh = cv2.threshold(grey_image,0,255, cv2.THRESH_BINARY)
height, width = gray_image.shape
print (height, width)
size = img.size
print (size)

# plot the binary image
imgplot = plt.imshow(gray_image, 'gray')
plt.show()
```

960 720

2073600



```
In [90]: print(gray_image.shape[0])
```

960

```
In [89]: print(gray_image.shape[1])
```

720

```
In [82]: total = gray_image.shape[0] * gray_image.shape[1]
print('Number of total pixels:',total)
```

Number of total pixels: 691200

```
In [83]: n_white_pix = np.sum(gray_image == 255)
print('Number of white pixels:', n_white_pix)
```

Number of white pixels: 0

```
In [84]: n_black_pix= np.sum(gray_image == 0)
print('Number of Black pixels:',n_black_pix)
```

Number of Black pixels: 111

```
In [85]: #NonBlack or grey range pixel count  
count = cv2.countNonZero(gray_image)  
print('Number of Non black or grey range pixels:',count)
```

Number of Non black or grey range pixels: 691089

```
In [86]: n_grey1_pix= np.sum(gray_image == 1)  
print('Number of Grey1 pixels:',n_grey1_pix)
```

Number of Grey1 pixels: 555

```
In [87]: A5=np.sum(gray_image==5)  
print('Number of gaey 5:',A5)
```

Number of gaey 5: 913

```
In [88]: # A[0]= n_black_pix  
# A[1]= n_gray1_pix  
#-----  
#-----  
#A[255]= n_white_pix
```