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DATA SCIENCE INTERN IN VIRTUAL INTERNSHIP PROGRAM AT LETSGROWMORE

TASK 1 : IMAGE TO PENCIL SKETCH WIHT PYTHON

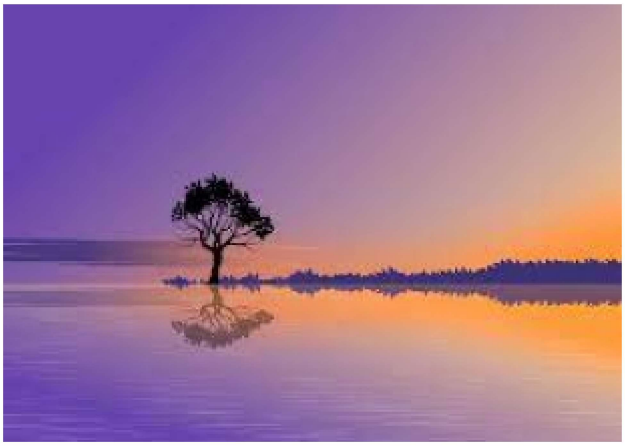
IMPORT LIBRARIES , READ THE IMAGE AND SHOW THE IMAGE

In [9]:
```
import cv2
import matplotlib.pyplot as plt
img = cv2.imread("C:/Users/Afshan/Downloads/LANDSCAPE1.jpg")
cv2.imshow('ImageWindow',img)
cv2.waitKey()
```

Out[9]: 13

SHOW THE IMAGE

In [10]:
```
RGB_img = cv2.cvtColor(img, cv2.COLOR_BGR2RGB)
plt.imshow(RGB_img)
plt.axis(False)
plt.show()
```



CONVERT TO GREY IMAGE

In [11]:
```
grey_img=cv2.cvtColor(img, cv2.COLOR_BGR2GRAY)
```

INVERT THE IMAGE

In [12]:
```
invert_img=cv2.bitwise_not(grey_img)
#invert_img=255-grey_img
```

BLUR THE IMAGE

In [13]:
```
blur_img=cv2.GaussianBlur(invert_img, (111,111),0)
```

INVERT BLURRED THE IMAGE

In [14]:
```
invblur_img=cv2.bitwise_not(blur_img)
#invblur_img=255-blur_img
```

SKETCH

In [15]:
```
sketch_img=cv2.divide(grey_img,invblur_img, scale=256.0)
```

SAVE THE SKETCH

In [17]:
```
 cv2.imwrite('sketch.png', sketch_img)
```

Out[17]: True

DISPLAY THE SKETCH

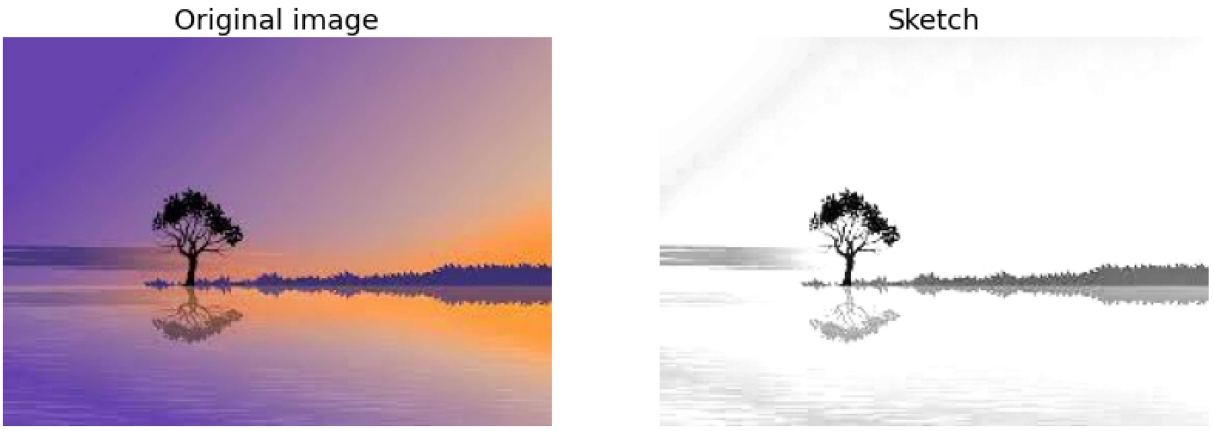
In [19]:
```
cv2.imshow('sketch image',sketch_img)
cv2.waitKey(0)
cv2.destroyAllWindows()
```

REAL IMAGE VS SKETCH

In [20]:
```
plt.figure(figsize=(14,8))

plt.subplot(1,2,1)
plt.title('Original image', size=18)
plt.imshow(RGB_img)
plt.axis('off')

plt.subplot(1,2,2)
plt.title('Sketch', size=18)
rgb_sketch=cv2.cvtColor(sketch_img, cv2.COLOR_BGR2RGB)
plt.imshow(rgb_sketch)
plt.axis('off')
plt.show()
```



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