

# LETSGROWMORE

## TASK 3 - Image to Pencil Sketch with Python

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```
In [1]: import cv2
import matplotlib.pyplot as plt
import numpy as np
plt.style.use('seaborn')
```

```
In [8]: img=cv2.imread('The-most-stunning-beaches-in-Kerala.jpg')
img=cv2.cvtColor(img,cv2.COLOR_BGR2RGB)

plt.figure(figsize=(8,8))
plt.axis("off")
plt.title("Original Image")
plt.imshow(img)
```

Out[8]: <matplotlib.image.AxesImage at 0x23f11698160>

Original Image



```
In [9]: img_gray=cv2.cvtColor(img,cv2.COLOR_RGB2GRAY)
plt.figure(figsize=(8,8))
plt.axis("off")
plt.imshow(img_gray)
plt.title("GrayScale Image")
plt.show()
```

GrayScale Image



```
In [10]: img_invert=255-img_gray
plt.figure(figsize=(8,8))
plt.axis("off")
plt.imshow(img_invert)
plt.title("Inverted Image")
plt.show()
```

Inverted Image



```
In [11]: blurred_image=cv2.GaussianBlur(img_invert, (21,21), 0)
inv_blurred=255-blurred_image
plt.figure(figsize=(8,8))
plt.axis("off")
plt.imshow(inv_blurred)
plt.title("Smoothen Image")
plt.show()
```

Smoothen Image



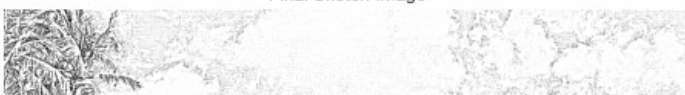
```
In [12]: img_sketch=cv2.divide(img_gray, inv_blurred , scale=255)
plt.figure(figsize=(8,8))

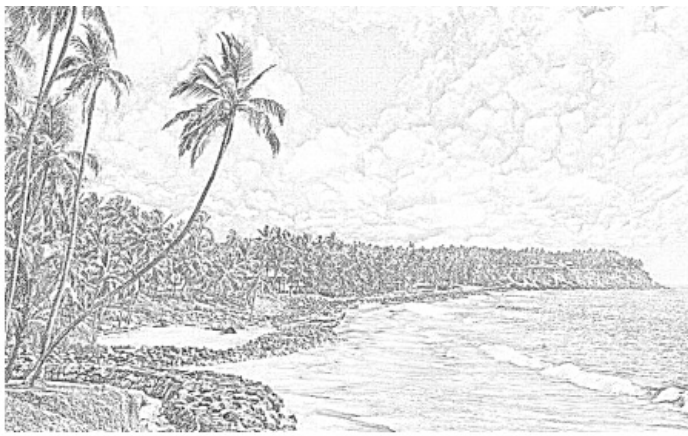
#Here we are sharpening the image obtained.

kernal=np.array([[ -1,-1,-1],
                  [-1,9,-1],
                  [-1,-1,-1]])

final_sketch=cv2.filter2D(img_sketch,-1,kernal)
plt.axis("off")
plt.imshow(final_sketch,cmap="gray")
plt.title("Final Sketch Image")
plt.show()
```

Final Sketch Image





In [13]:

```
plt.figure(figsize=(20,20))
plt.subplot(1,5,1)
plt.imshow(img)
plt.axis("off")
plt.title("Original Image")
plt.subplot(1,5,2)
plt.imshow(img_gray)
plt.axis("off")
plt.title("GrayScale Image")
plt.subplot(1,5,3)
plt.imshow(img_invert)
plt.axis("off")
plt.title("Inverted Image")
plt.subplot(1,5,4)
plt.imshow(blurred_image)
plt.axis("off")
plt.title("Smoothen Image")
plt.subplot(1,5,5)
plt.imshow(final_sketch,cmap="gray")
plt.axis("off")
plt.title("Final Sketch Image")
plt.show()
```



In [ ]:

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