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Begginer Level:Task 4 Image to sketch with Python

The task is to convert an image into sketch using python.

We are going to use cv2 library.

OpenCV is the huge open-source library for the computer vision, machine learning, and image processing and it plays a major role
in real-time operation. By using it, we are processing our image to get the pencil sketch.
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1. Importing required Libraries

In [9]:
```
import cv2
import matplotlib.pyplot as plt
plt.style.use('seaborn')
```

2 Importing coloured image

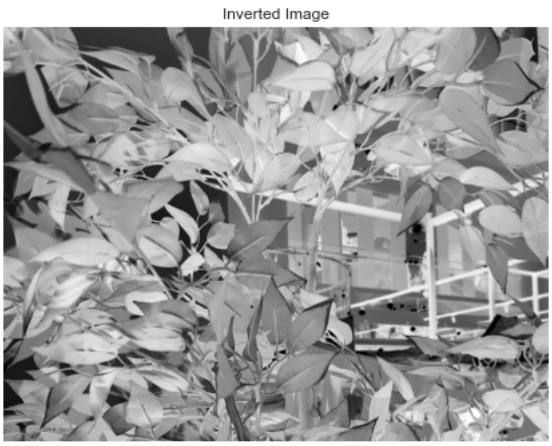
In [13]:
```
image = cv2.imread("task 4.jpg")
plt.figure(figsize=(10,10))
plt.imshow(image)
plt.axis("off")
plt.title("Original Image")
plt.show()
```

3 Converting the colored image into gray

In [14]:
```
gray_image = cv2.cvtColor(image, cv2.COLOR_BGR2GRAY)
plt.figure(figsize=(10,10))
plt.imshow(gray_image,cmap="gray")
plt.axis("off")
plt.title("GrayScale Image")
plt.show()
```

4. Converting gray image to inverted image

In [16]:
```
inverted_image = cv2.bitwise_not(gray_image)
plt.figure(figsize=(10,10))
plt.imshow(inverted_image,cmap="gray")
plt.axis("off")
plt.title("Inverted Image")
plt.show()
```



5 Smoothing the image

In [18]:
```
smoothing_image=cv2.GaussianBlur(inverted_image,(21,21),sigmaX=0,sigmaY=0)
plt.figure(figsize=(10,10))
plt.imshow(smoothing_image,cmap="gray")
plt.axis("off")
plt.title("Smoothen Image")
plt.show()
```

6 Converting the image into Sketch by using divide function

In [21]:
```
Final_pencil_sketch = cv2.divide(gray_image,255-smoothing_image, scale=255.0)
plt.figure(figsize=(10,10))
plt.imshow(Final_pencil_sketch,cmap="gray")
plt.axis("off")
plt.title("Final Sketch Image")
plt.show()
```

In [ ]: