

# LetsGrowMore

## ▼ Beginner Level Task : Data Science

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### **Beginner Level Task 4 : Image to Pencil Sketch with Python:**

- Task Description :** We need to read the image in RBG format and then convert it to a grayscale image. This will turn an image into a classic black and white photo. Then the next thing to do is invert the grayscale image also called negative image, this will be our inverted grayscale image. Inversion can be used to enhance details. Then we can finally create the pencil sketch by mixing the grayscale image with the inverted blurry image. This can be done by dividing the grayscale image by the inverted blurry image. Since images are just arrays, we can easily do this programmatically using the divide function from the cv2 library in Python.
- ▼ grayscale image. Inversion can be used to enhance details. Then we can finally create the pencil sketch by mixing the grayscale image with the inverted blurry image. This can be done by dividing the grayscale image by the inverted blurry image. Since images are just arrays, we can easily do this programmatically using the divide function from the cv2 library in Python.

```
from google.colab import drive
```

```
drive.mount('/content/drive')
```

Mounted at /content/drive

```
import cv2 as cv
import numpy as np
from google.colab.patches import cv2_imshow
```

## ▼ ORIGINAL IMAGE

```
original_image= cv.imread('/content/flower.jpg')
cv2_imshow(original_image)
```





## ▼ GRAYSCALE IMAGE

```
gray_image = cv.cvtColor(original_image, cv.COLOR_BGR2GRAY)  
cv2.imshow(gray_image)
```



## ▼ INVERTED IMAGE

```
inverted_image = 255 - gray_image  
cv2_imshow(inverted_image)
```





## ▼ **BLURRED IMAGE**

```
blurred_image = cv.GaussianBlur(inverted_image, (21, 21), 0)  
cv2_imshow(blurred_image)
```



## ▼ FINAL IMAGE

```
def dodgeV2(x, y):  
    return cv.divide(x, 255- y, scale=256)  
  
final_image = dodgeV2(gray_image, blurred_image)
```

```
cv2_imshow(final_image)
```



## ▼ IMAGE TO PENCIL SKETCH

```
Original = cv.imread('/content/original_image.jpg')  
cv2_imshow(Original)
```

```
Final= cv.imread('/content/flower.jpg')  
cv2_imshow(Final)
```



