1. **Perform edge detection using Sobel Matrix along y-axis**

**Aim:**

To perform edge detection using Sobel Matrix along y-axis on an image using python.

**Code:**

import cv2

img = cv2.imread("C:\\Users\\prith\\Documents\\CV\\cvimage.jpg")

cv2.imshow('Original', img)

cv2.waitKey(0)

img\_gray = cv2.cvtColor(img, cv2.COLOR\_BGR2GRAY)

img\_blur = cv2.GaussianBlur(img\_gray, (3,3), 0)

sobely = cv2.Sobel(src=img\_blur, ddepth=cv2.CV\_64F, dx=0, dy=1, ksize=5)

sobely = cv2.convertScaleAbs(sobely)

cv2.imshow('Sobel Y', sobely)

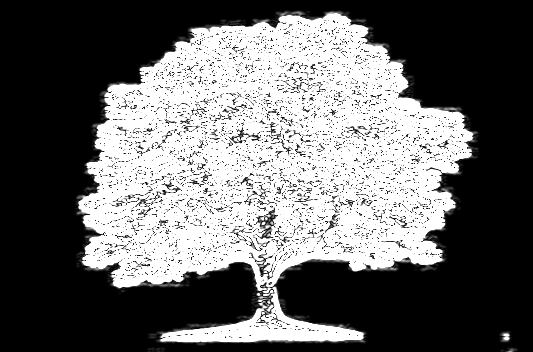
cv2.waitKey(0)

cv2.destroyAllWindows()

**Input:**



**Output:**

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**Result:**

The python code to perform edge detection using Sobel Matrix along y-axis on an image has been executed successfully.