1. **Perform sharpening of image using Laplacian mask implemented with an extension of diagonal neighbours.**

**Aim:**

To perform sharpening of image using Laplacian mask implemented with an extension of diagonal neighbours using python.

**Code:**

import cv2

import numpy as np

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

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

kernel = np.array([[0,1,0], [1,-4,1], [0,1,0]])

sharpened = cv2.filter2D(gray, -1, kernel)

cv2.imshow('Original', gray)

cv2.imshow('Sharpened', sharpened)

cv2.waitKey(0)

cv2.destroyAllWindows()

**Input:**



**Output:**

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**Result:**

The python code to perform sharpening of image using Laplacian mask implemented with an extension of diagonal neighbours has been executed successfully.