16. Perform Sharpening of Image using Laplacian mask with negative center coefficient.

PROGRAM:

EXP-16.py - C:\Users\reddy\OneDrive\Desktop\COMPUTER VISION\EXP-16.py (3.11.9)

File Edit Format Run Options Window Help

```
import cv2
import numpy as np

# Read image
img = cv2.imread(r"C:\Users\reddy\OneDrive\Desktop\COMPUTER VISION\iii.jpg")

if img is None:
    print("Image not found")
    exit()

# Convert to grayscale
gray = cv2.cvtColor(img, cv2.COLOR_BGR2GRAY)

# Laplacian mask (negative center)
kernel = np.array([[0, 1, 0],
                   [1, -4, 1],
                   [0, 1, 0]])

# Apply filter
laplacian = cv2.filter2D(gray, -1, kernel)

# Sharpen image
sharpened = cv2.subtract(gray, laplacian)

# Display images
cv2.imshow("Original Image", gray)
cv2.imshow("Sharpened Image", sharpened)

cv2.waitKey(0)
cv2.destroyAllWindows()
```

Ln: 1 Col: 0

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OUTPUT: