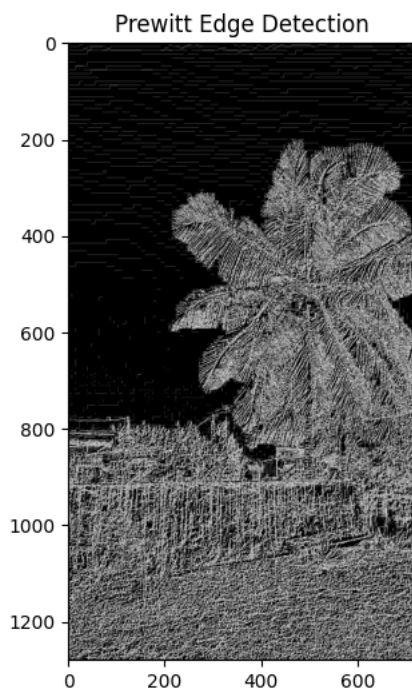
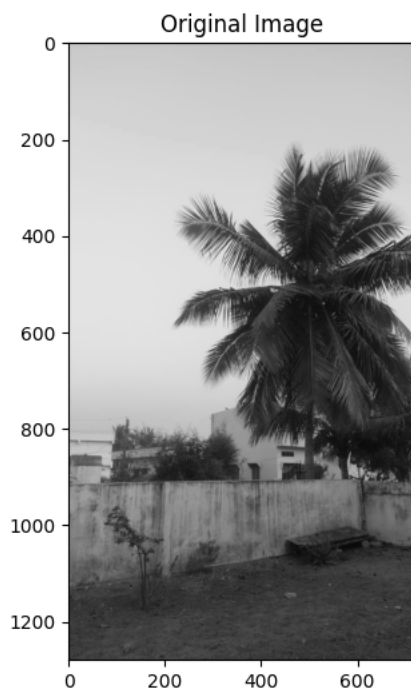


```
import cv2
import numpy as np
import matplotlib.pyplot as plt

# Load the image
image_path = '/content/drive/MyDrive/CV/tree.jpeg' # Replace with the actual path to your image
original_image = cv2.imread(image_path, cv2.IMREAD_GRAYSCALE)

# Prewitt Operator
prewitt_kernel_x = np.array([[ -1,  0,  1], [ -1,  0,  1], [ -1,  0,  1]])
prewitt_kernel_y = np.array([[ -1, -1, -1], [ 0,  0,  0], [ 1,  1,  1]])
prewitt_x = cv2.filter2D(original_image, -1, prewitt_kernel_x)
prewitt_y = cv2.filter2D(original_image, -1, prewitt_kernel_y)
prewitt_combined = np.sqrt(prewitt_x**2 + prewitt_y**2)

# Display the results
plt.figure(figsize=(12, 6))
plt.subplot(121), plt.imshow(original_image, cmap='gray'), plt.title('Original Image')
plt.subplot(122), plt.imshow(prewitt_combined, cmap='gray'), plt.title('Prewitt Edge Detection')
plt.show()
```



```
import cv2
import numpy as np
import matplotlib.pyplot as plt

# Load the image
image_path = '/content/drive/MyDrive/CV/tree.jpeg' # Replace with the actual path to your image
original_image = cv2.imread(image_path, cv2.IMREAD_GRAYSCALE)

# Laplacian of Gaussian (LoG)
gaussian_blur = cv2.GaussianBlur(original_image, (5, 5), 0)
laplacian = cv2.Laplacian(gaussian_blur, cv2.CV_64F)

# Display the results
plt.figure(figsize=(12, 6))
plt.subplot(121), plt.imshow(original_image, cmap='gray'), plt.title('Original Image')
plt.subplot(122), plt.imshow(laplacian, cmap='gray'), plt.title('Laplacian of Gaussian')
plt.show()
```

