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# Step 1: Upload an image
from google.colab import files
uploaded = files.upload()

# Step 2: Read the image using OpenCV
import cv2
import matplotlib.pyplot as plt
import numpy as np
from PIL import Image
import io

# Extract filename
filename = next(iter(uploaded))

# Convert uploaded file to OpenCV image
image = Image.open(io.BytesIO(uploaded[filename]))
image = cv2.cvtColor(np.array(image), cv2.COLOR_RGB2BGR)

# Step 3: Apply Gaussian Blur
# (kernel size must be odd numbers like (5,5), (11,11), etc.)
blurred_image = cv2.GaussianBlur(image, (15, 15), 0)

# Step 4: Display Original and Blurred images using matplotlib
# Convert BGR to RGB for display
image_rgb = cv2.cvtColor(image, cv2.COLOR_BGR2RGB)
blurred_rgb = cv2.cvtColor(blurred_image, cv2.COLOR_BGR2RGB)

plt.figure(figsize=(10,5))
plt.subplot(1, 2, 1)
plt.title("Original Image")
plt.imshow(image_rgb)
plt.axis('off')

plt.subplot(1, 2, 2)
plt.title("Blurred Image")
plt.imshow(blurred_rgb)
plt.axis('off')

plt.show()

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Original Image



Blurred Image

