# DSA0210 Computer Vision with Open CV LAB Experiments

Experiment-35. Draw Rectangular shape and extract objects.

**PROGRAM:**

```
import cv2
import matplotlib.pyplot as plt

# Read the input image
img = cv2.imread(r"D:\New Folder\human.jpeg")

# Check if image is loaded
if img is None:
    raise FileNotFoundError("Image not found. Check the file path.")

# Define rectangle parameters
x, y = 100, 100     # Top-left corner
w, h = 200, 200     # Width and height

# Copy image to draw rectangle
rect_img = img.copy()

# Draw rectangle
cv2.rectangle(  rect_img,    (x, y),    (x + w, y + h),    (0, 255, 0),  2
)

# Extract object (Region of Interest)
roi = img[y:y + h, x:x + w]

# Display images
```

```
plt.figure(figsize=(8, 4))

plt.subplot(1, 2, 1)
plt.imshow(cv2.cvtColor(rect_img, cv2.COLOR_BGR2RGB))
plt.title("Image with Rectangle")
plt.axis("off")

plt.subplot(1, 2, 2)
plt.imshow(cv2.cvtColor(roi, cv2.COLOR_BGR2RGB))
plt.title("Extracted Object (ROI)")
plt.axis("off")

plt.tight_layout()
plt.show()
```

**OUTPUT:**