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Importing req. lib.

In []:

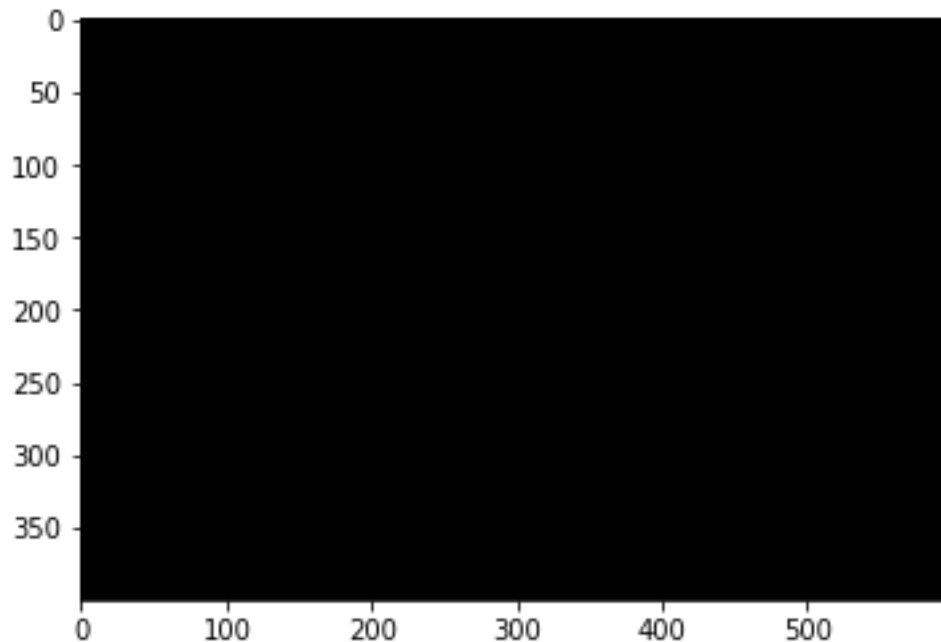
```
import cv2 import numpy as np
import matplotlib.pyplot as plt
```

Image processing

In []:

```
# Create a image
img1 =
np.zeros((400,600,3),np.uint8)
plt.imshow(img1)
```

Out[]:



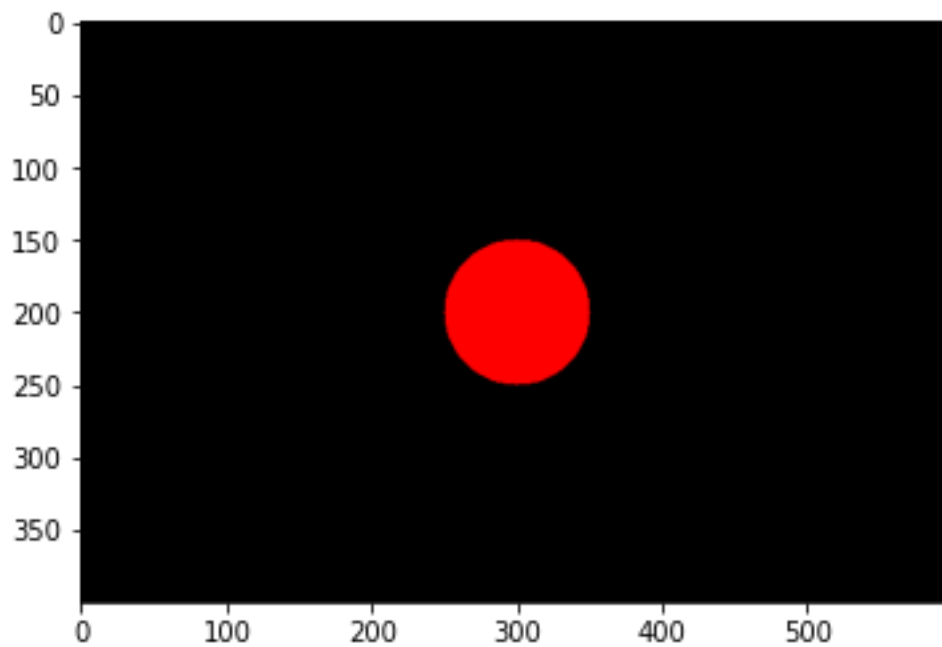
In []:

```
# Drawing Functions
```

In []:

```
# Draw a circle
circle = cv2.circle(img1, (300,200), 50, (255,0,0), -1) # (0,0,0)--
-
>(R,G,B) plt.imshow(img1)
```

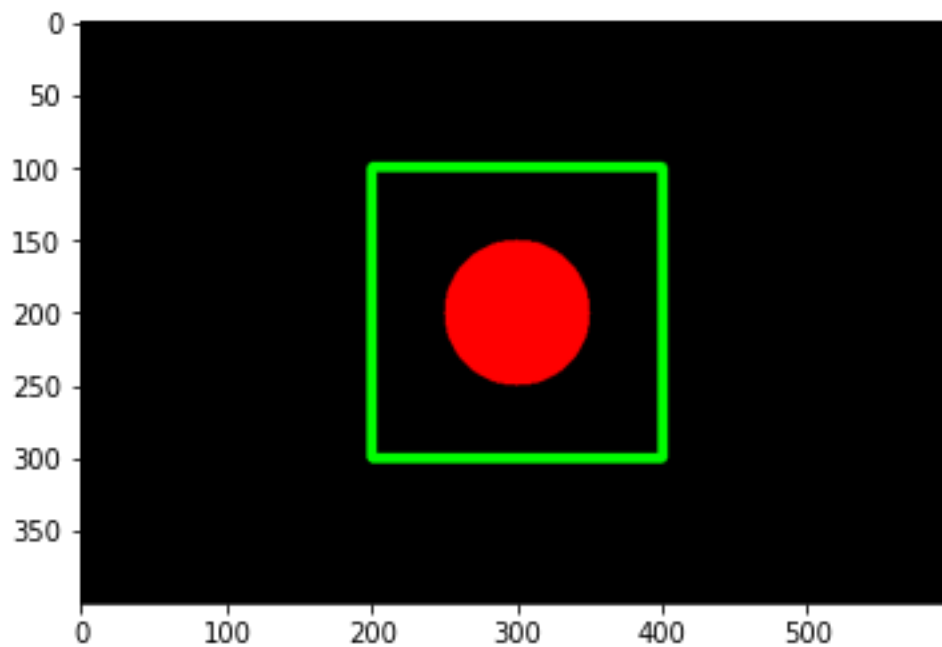
Out[]:



In []:

```
# Drawing rectangle
rectangle =
cv2.rectangle(img1, (200,100), (400,300), (0,255,0), 6)
plt.imshow(img1)
```

Out[]:



In []:

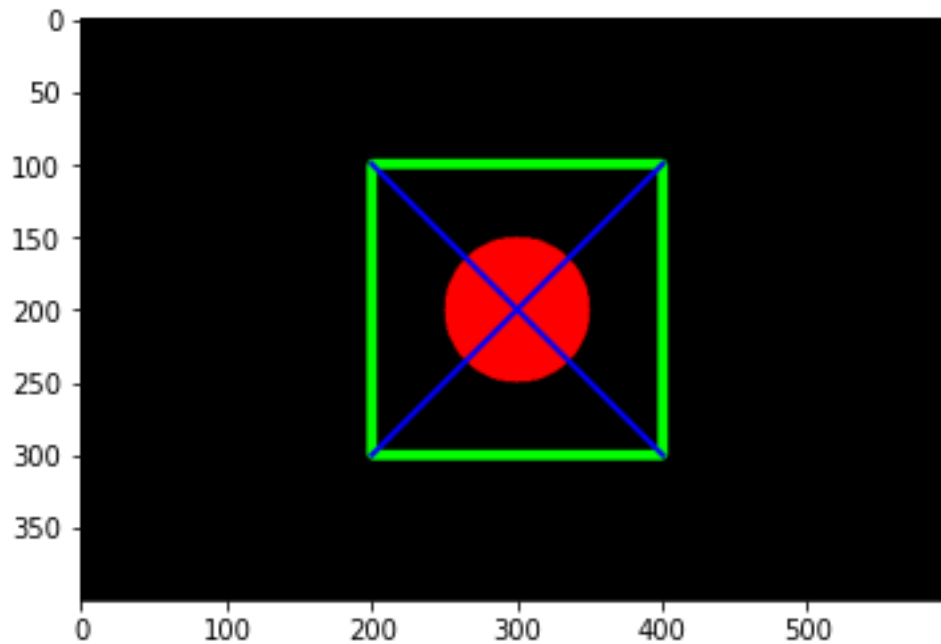
```
# Drawing line
```

```

line1 =
cv2.line(img1, (200,100), (400,300), (0,0,255),4) line2 =
cv2.line(img1, (200,300), (400,100), (0,0,255),4)
plt.imshow(img1)

```

Out[]:



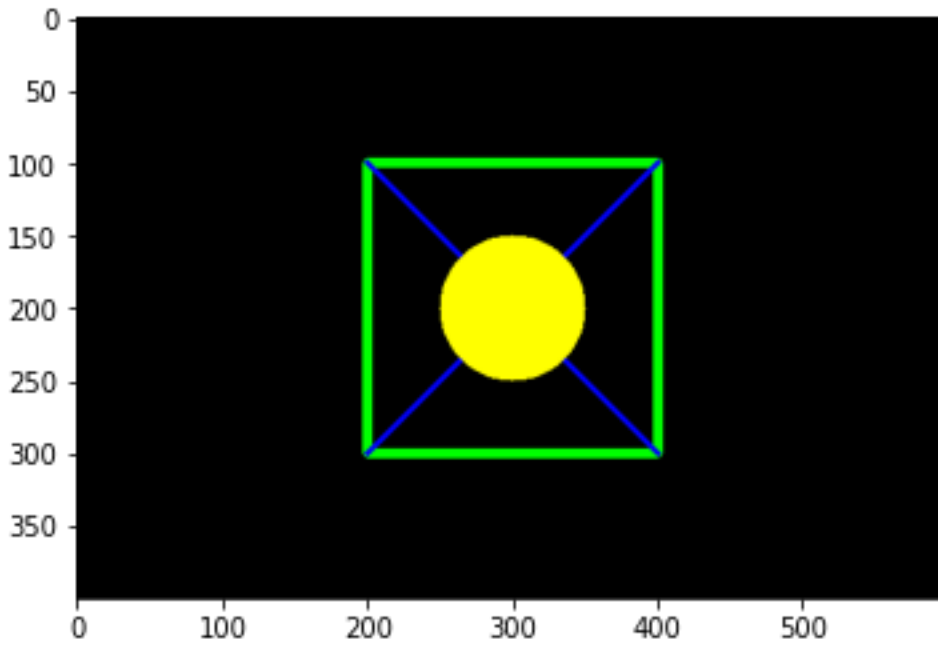
In []:

```

circle = cv2.circle(img1, (300,200), 50, (255,255,0), -1) # (0,0,0)---
>(R,G,B) plt.imshow(img1)

```

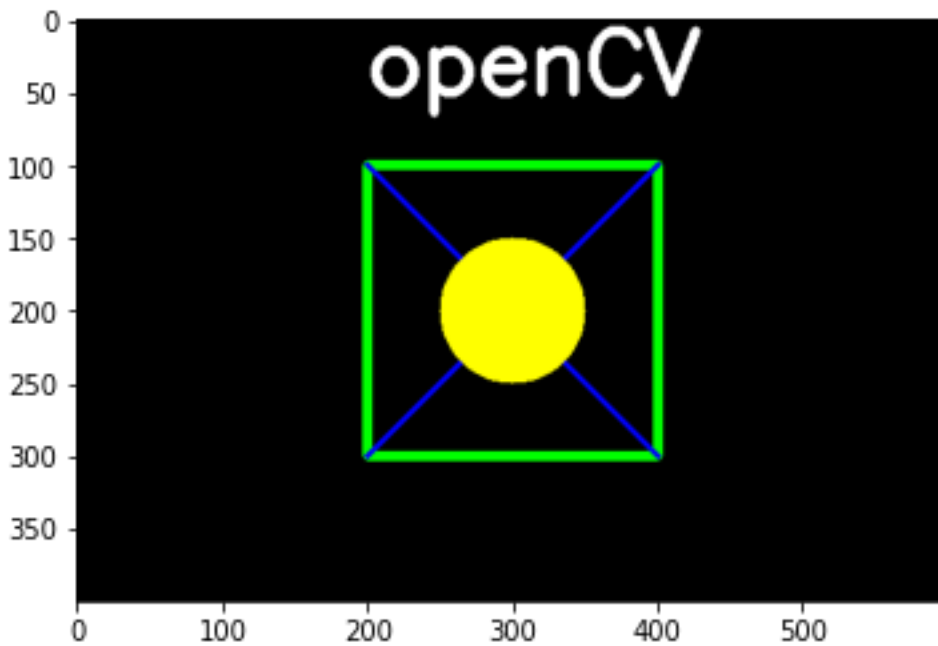
Out[]:



In []:

```
# Text on image
text = cv2.putText(img1, 'openCV', (200,50), cv2.FONT_HERSHEY_SIMPLEX,
2,
(255,255,255),5)
plt.imshow(img1)
```

Out []:



In []:

```
# Reading the image
img =
cv2.imread('/content/boy.jpg',1)
plt.imshow(img)
```

In []:

```
# Convert BGR to RGB

img_rgb = cv2.cvtColor(img, cv2.COLOR_BGR2RGB) plt.imshow(img_rgb)
```

In []:

```
# Convert BGR to Gray
img_gray = cv2.cvtColor(img,
cv2.COLOR_BGR2GRAY) plt.imshow(img_gray)
```

In []:

```
# Finding shape
img_rgb.shape
```

Out[]:

```
(983, 736, 3)
```

In []:

```
img_gray.shape
```

Out[]:

```
(983, 736)
```

In []:

```
# Resize the image
resize =
cv2.resize(img_rgb, (500,1000))
print(resize.shape) plt.imshow(resize)
```

In []:

```
# Image crop  crop =
resize[130:370,150:300]
plt.imshow(crop)
```

In []:

```
# Edge Detection
edge =
cv2.Canny(img_rgb,100,200)
plt.imshow(edge)
```

In []:

```
# Blur image  r = resize[130:370,150:300] blur =
cv2.GaussianBlur(r, (13,13),cv2.BORDER_DEFAULT)
plt.imshow(resize) plt.imshow(blur)
```