Importing req. lib.

In [ ]:

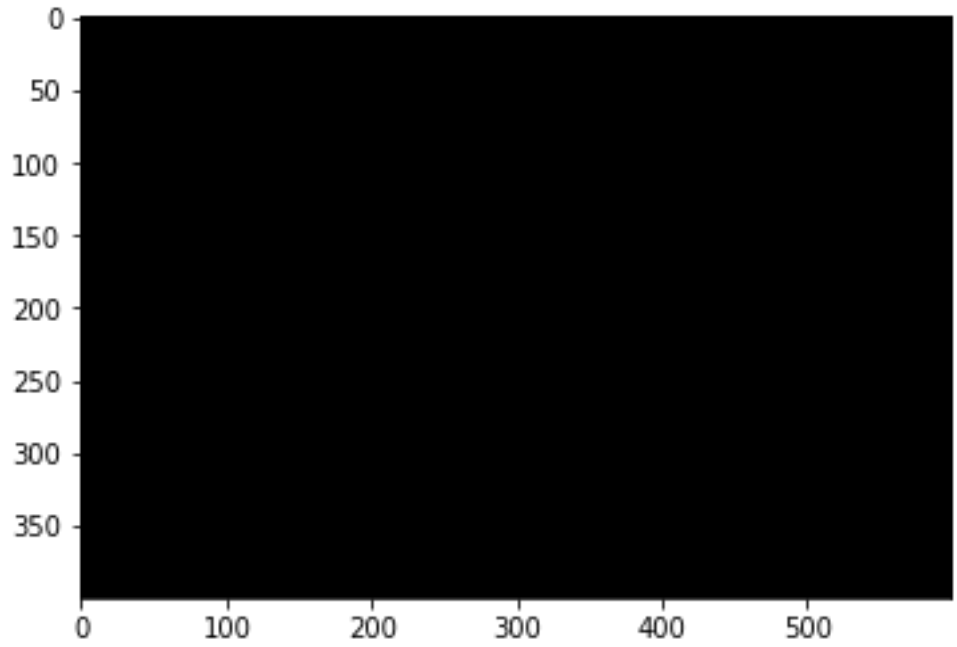
```
 import cv2 import numpy as np
import matplotlib.pyplot as plt
```

Image processiong

In [ ]:

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

Out[ ]:



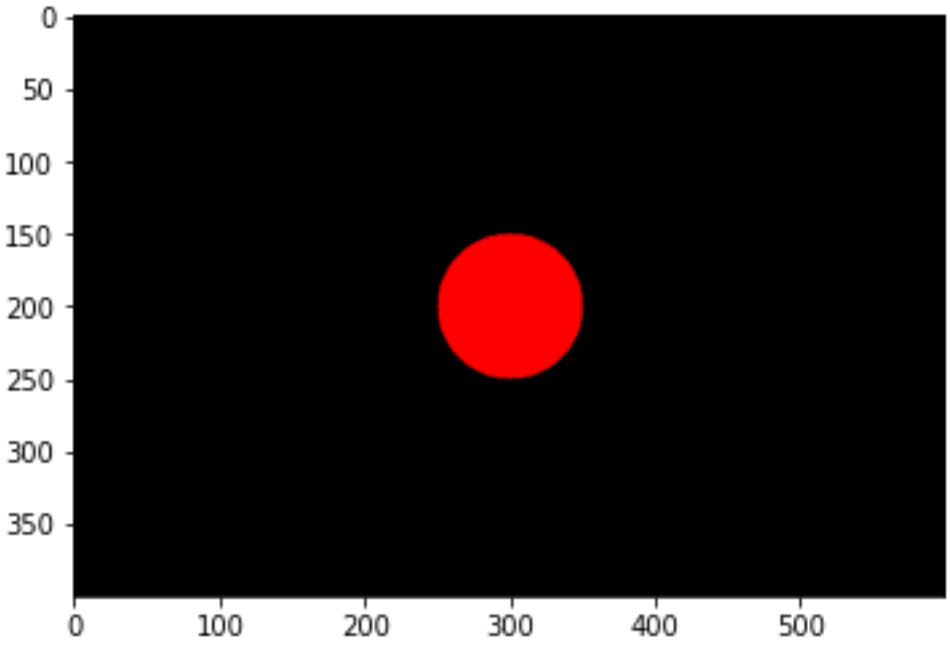
In [ ]:

```
# 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)
```

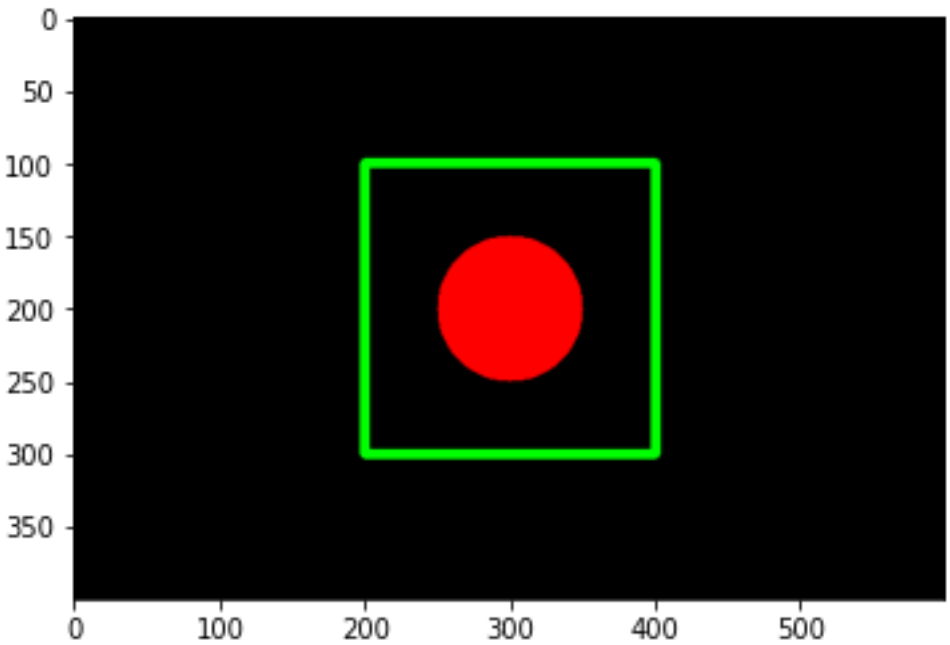
Out[ ]:



In [ ]:

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

Out[ ]:

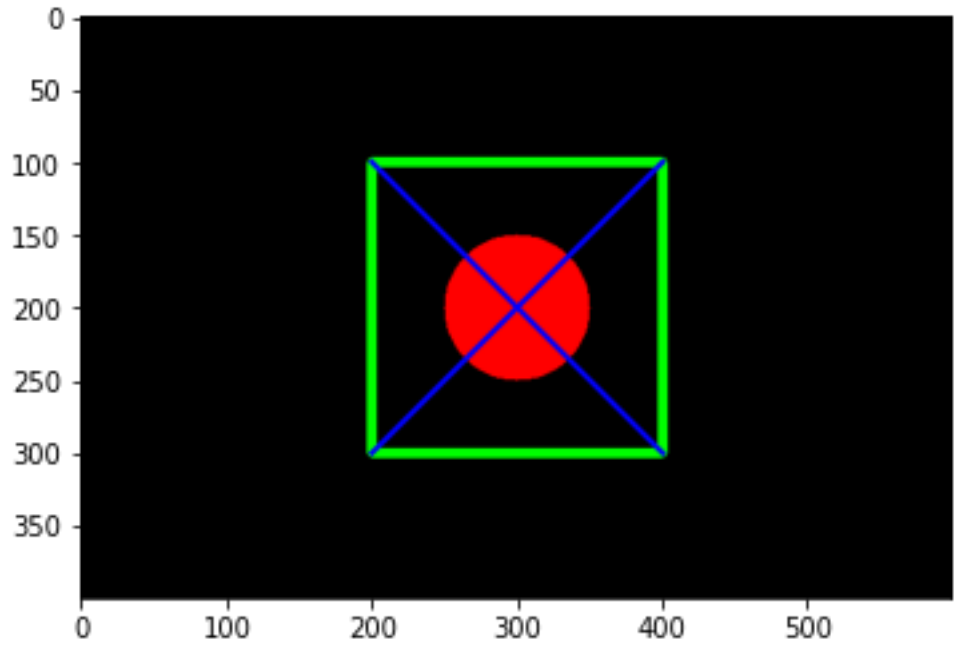


In [ ]:

```
# 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)
```

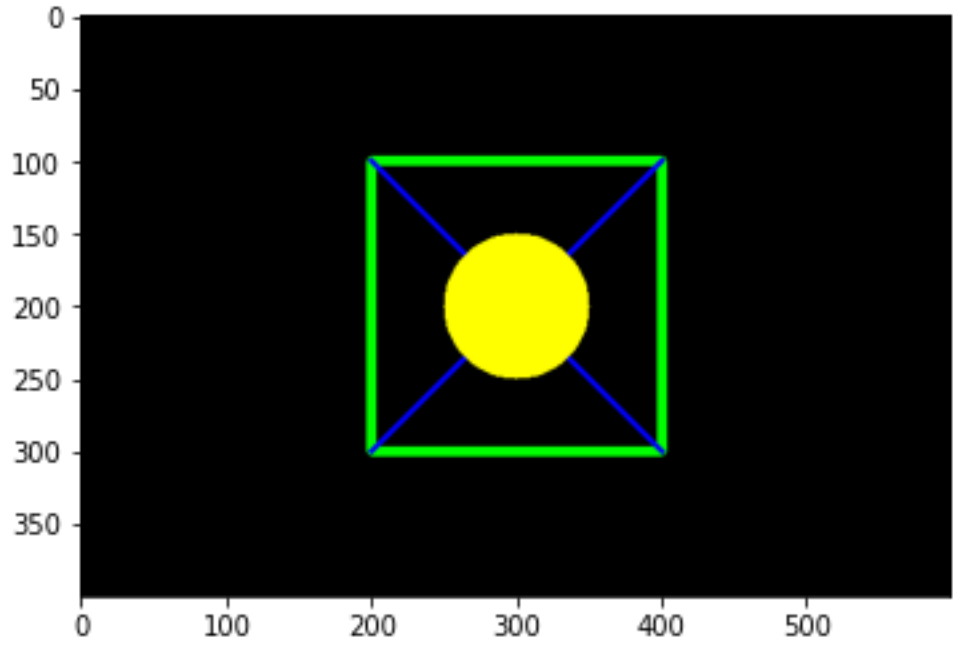
Out[ ]:



In [ ]:

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

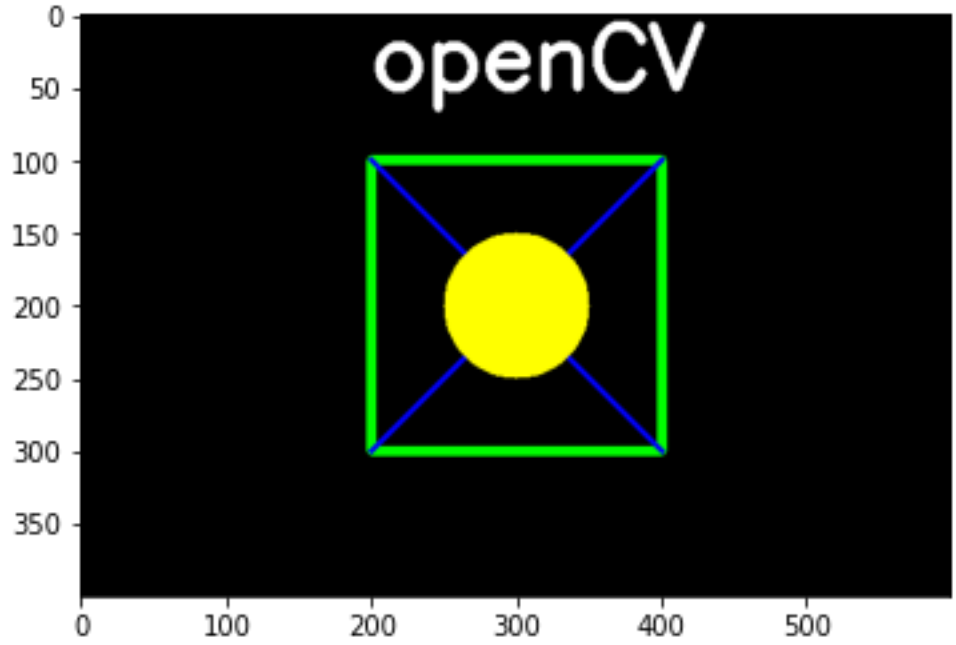
Out[ ]:



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)
```