

```
In [3]: import numpy as np
import cv2 as cv
```

## Access camera With OpenCV

```
In [4]: cam = cv.VideoCapture(0)

while True:
    _, img = cam.read()
    cv.imshow("frame" , img)
    if cv.waitKey(23) & 0xFF == ord("q"):
        break

cam.release()
cv.destroyAllWindows()
```

```
In [2]: cam = videoapture(0)
(0)

while True:
    _, img = cam.read()
    cv.imshow("frame" , img)
    if cv.waitKey(1) & 0xFF == ord("q"):
        break

cam.release()
cv.destroyAllWindows()
```

```
In [ ]: cam = cv.VideoCapture(0)

while True:
    _, img = cam.read()
    cv.imshow("Video_Frame" , img)
    if cv.waitKey(2) & 0xFF == ord("t"):
        break
cam.release()
cam.destroyeAllWindows()
```

```
In [ ]:
```

```
In [ ]:
```

```
In [ ]:
```

```
In [ ]:
```

```
In [ ]:
```

```
In [ ]:
```

```
In [ ]:
```

In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]:

```
In [ ]: cam = cv.VideoCapture(0)
while True:
    _, img = cam.read()
    cam.show("image" , img)
    if cv.waitKey(3) & 0xFF == ord("u"):
        break
cam.release()
cam.destroyAllWindows()
```

## draw line in frame

```
In [5]: cam = cv.VideoCapture(0)
while True:
    _, img = cam.read()
    img = cv.line(img , (400 , 800),(500,1000) , (0,0,255) , 10)
    cv.imshow("line" , img)
    if cv.waitKey(1) & 0xFF == ord("e"):
        break
cam.release()
cv.destroyAllWindows()
```

## Draw line on Img

```
In [6]: img = np.zeros((500,500 , 3) , dtype = 'int')
cv.line(img , (200,300) , (100, 300) ,(255,0,0,) , 10)
cv.imwrite("line1.png" , img)
```

Out[6]: True

In [8]:

```
Out[8]: array([[0, 0, 0],
               [0, 0, 0],
               [0, 0, 0],
               ...,
               [0, 0, 0],
               [0, 0, 0],
               [0, 0, 0]],

            [[0, 0, 0],
             [0, 0, 0],
             [0, 0, 0],
             ...,
             [0, 0, 0],
             [0, 0, 0],
             [0, 0, 0]],

            [[0, 0, 0],
             [0, 0, 0],
             [0, 0, 0],
             ...,
             [0, 0, 0],
             [0, 0, 0],
             [0, 0, 0]],

            ...,

            [[0, 0, 0],
             [0, 0, 0],
             [0, 0, 0],
             ...,
             [0, 0, 0],
             [0, 0, 0],
             [0, 0, 0]],

            [[0, 0, 0],
             [0, 0, 0],
             [0, 0, 0],
             ...,
             [0, 0, 0],
             [0, 0, 0],
             [0, 0, 0]],

            [[0, 0, 0],
             [0, 0, 0],
             [0, 0, 0],
             ...,
             [0, 0, 0],
             [0, 0, 0],
             [0, 0, 0]]])
```

```
In [7]: cam = cv.VideoCapture(0)

while True:
    _, img = cam.read()
    cv.imshow("frame", img)
    cv.line(img, (800, 300), (600, 7000), (0, 0, 255), 10)
    if cv.waitKey(1) & 0xFF == ord("a"):
        break
cam.release()
cv.destroyAllWindows()
```

## Draw Rectangle in Frame

```
In [10]: cam = cv.VideoCapture(0)
while True:

    _, img = cam.read()
    img = cv.flip(img, 1)
    img = cv.rectangle(img, (100,100), (400,400), (0,0,255), 10)
    cv.imshow("rect", img)
    if cv.waitKey(1) & 0xFF == ord("s"):
        break

cam.release()
cv.destroyAllWindows()
```

## Draw Circle In Frame

```
In [11]: cam = cv.VideoCapture(0)

while True:

    _, img = cam.read()
    img = cv.flip(img, 1)
    img = cv.circle(img, (270,240), 350, (0,255,0), 300)
    cv.imshow("circle", img)
    if cv.waitKey(1) & 0xFF == ord("d"):
        break

cam.release()
cv.destroyAllWindows()
```

```
In [15]: cam = cv.VideoCapture(0)

while True:

    _, img = cam.read()
    img = cv.flip(img, 1)
    img = cv.circle(img, (270,240), 140, (0,255,0), 10)
    cv.imshow("circle", img)
    if cv.waitKey(1) & 0xFF == ord("d"):
        break

cam.release()
cv.destroyAllWindows()
```

## Write Text In Frame

```
In [17]: cam = cv.VideoCapture(0)

while True:
    _, img = cam.read()
    img = cv.flip(img, 1)
    img = cv.putText(img, "NARESH REDDY", (50,50), cv.FONT_HERSHEY_PLAIN, 2, (0,
cv.imshow("text", img)
    if cv.waitKey(1) & 0xFF == ord("f"):
        break
cam.release()
cv.destroyAllWindows()
```

```
In [ ]:
```