ASSIGNMENT 6

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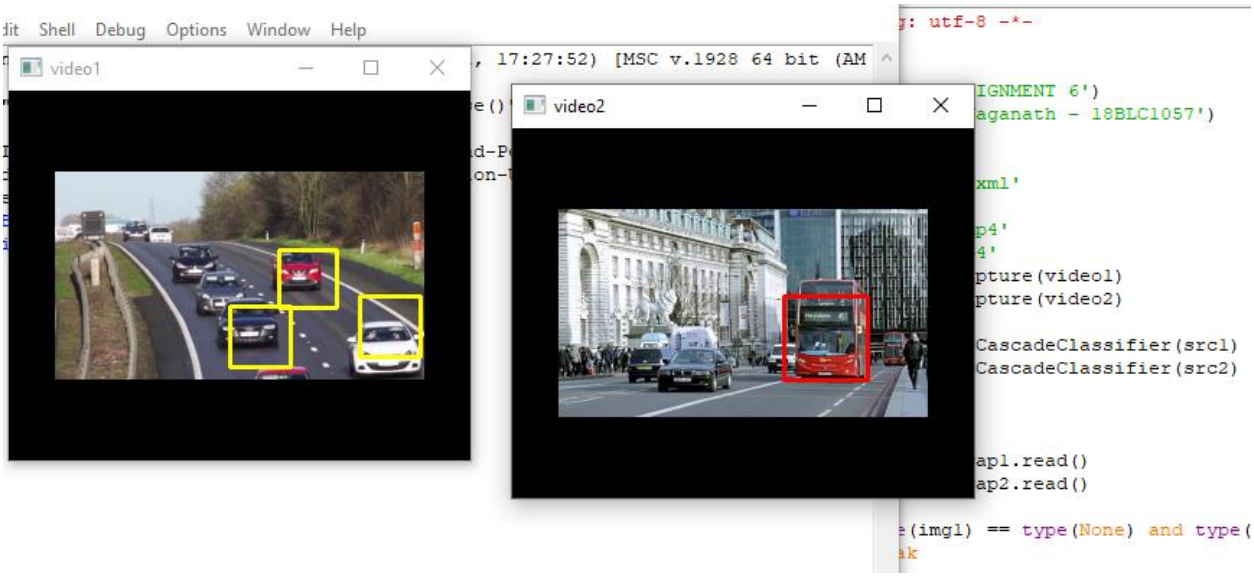
Q) Develop a python code to detect any object using Haar cascade classifier.

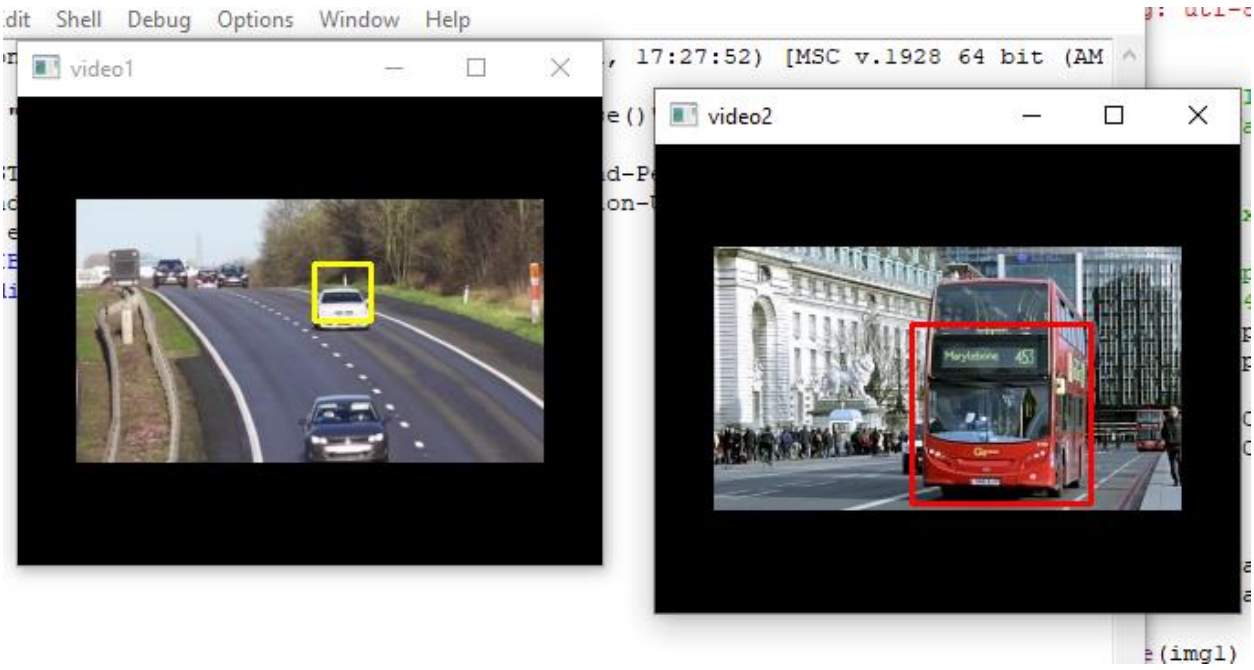
Python Code:

```
import cv2

print('IOT IBM ASSIGNMENT 6')

print('By Aditya Jaganath - 18BLC1057')


src1 = 'cars.xml'

src2 = 'Bus_front.xml'


video1 = 'cars 1.mp4'

video2 = 'busss.mp4'

cap1 = cv2.VideoCapture(video1)

cap2 = cv2.VideoCapture(video2)


car_cascade = cv2.CascadeClassifier(src1)

bus_cascade = cv2.CascadeClassifier(src2)



while True:

    ret1, img1 = cap1.read()
```

```
    ret2, img2 = cap2.read()

    if (type(img1) == type(None) and type(img2) == type(None)):
        break

    gray1 = cv2.cvtColor(img1, cv2.COLOR_BGR2GRAY)
    gray2 = cv2.cvtColor(img2, cv2.COLOR_BGR2GRAY)

    cars = car_cascade.detectMultiScale(gray1, 1.16, 1)
    bus = bus_cascade.detectMultiScale(gray2, 1.16, 1)

    for (x,y,w,h) in cars:
        cv2.rectangle(img1,(x,y),(x+w,y+h),(0,255,255),2)
        cv2.imshow('video1', img1)
    for (x,y,w,h) in bus:
        cv2.rectangle(img2,(x,y),(x+w,y+h),(-25,0,255),2)
        cv2.imshow('video2', img2)

    if cv2.waitKey(33) == 27:
        break

cv2.destroyAllWindows()
```

OUTPUT:


Shell Debug Options Window Help
video1
video2
17:27:52) [MSC v.1928 64 bit (AM
IGNMENT 6')
aganath - 18BLC1057')
xml'
p4'
4'
pture(video1)
pture(video2)
CascadeClassifier(src1)
CascadeClassifier(src2)
ap1.read()
ap2.read()
(img1) == type(None) and type(


Shell Debug Options Window Help
video1
video2
17:27:52) [MSC v.1928 64 bit (AM
(img1)