

ASSIGNMENT 6

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

CODE:

```
import cv2
import time
import numpy as np

# Create our body classifier car_classifier =
cv2.CascadeClassifier('haarcascade_car.xml')

# Initiate video capture for video file cap =
cv2.VideoCapture('image_examples_cars.avi')

# Loop once video is successfully loaded while
cap.isOpened():

    time.sleep(.05) #
    Read first frame ret,
    frame = cap.read()

    gray = cv2.cvtColor(frame, cv2.COLOR_BGR2GRAY)
```

```

# Pass frame to our car classifier      cars =
car_classifier.detectMultiScale(gray, 1.4, 2)      #

Extract bounding boxes for any bodies identified

for (x,y,w,h) in cars:

    cv2.rectangle(frame, (x, y), (x+w, y+h), (0, 255, 255), 2)      cv2.imshow('Cars',
frame)      cv2.putText(frame, 'car', (x, y - 10), cv2.FONT_HERSHEY_SIMPLEX, 1, (255,
0, 0), 4)

#waitKey(1)- for every 1 millisecond new frame will be captured
Key=cv2.waitKey(1)

if Key==ord('q'):
#release the camera

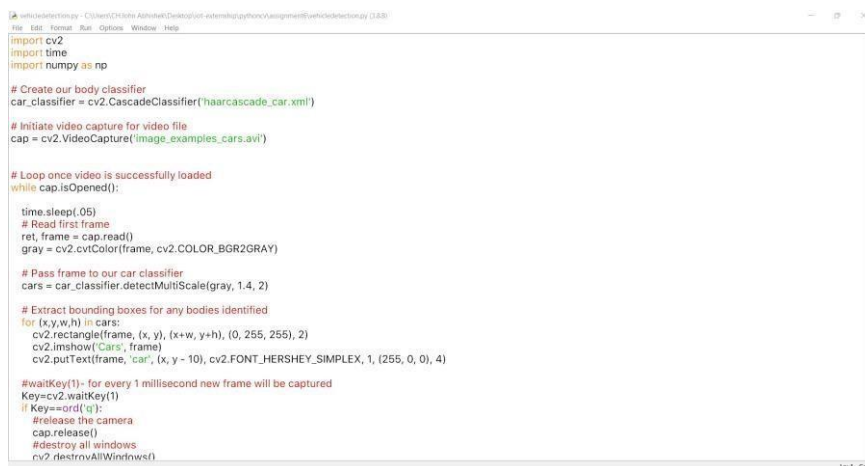
    cap.release()

#destroy all windows
cv2.destroyAllWindows()

break

```

OUTPUT:



```

File Edit Format Run Options Window Help
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import time
import numpy as np

# Create our body classifier
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# Initiate video capture for video file
cap = cv2.VideoCapture('image_examples_cars.avi')

# Loop once video is successfully loaded
while cap.isOpened():
    time.sleep(0.05)
    # Read first frame
    ret, frame = cap.read()
    gray = cv2.cvtColor(frame, cv2.COLOR_BGR2GRAY)

    # Pass frame to our car classifier
    cars = car_classifier.detectMultiScale(gray, 1.4, 2)

    # Extract bounding boxes for any bodies identified
    for (x,y,w,h) in cars:
        cv2.rectangle(frame, (x, y), (x+w, y+h), (0, 255, 255), 2)
        cv2.imshow('Cars', frame)
        cv2.putText(frame, 'car', (x, y - 10), cv2.FONT_HERSHEY_SIMPLEX, 1, (255, 0, 0), 4)

    #waitKey(1)- for every 1 millisecond new frame will be captured
    Key=cv2.waitKey(1)
    if Key==ord('q'):
        #release the camera
        cap.release()
        #destroy all windows
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```

