

Assignment 6

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

Ans :

Topic : Vehicle Detection in video using haar cascade classifier

```
import cv2
import datetime

vehicle_classifier = cv2.CascadeClassifier(
    "FDLib/haarcascade_vehicle.xml"
)

video = cv2.VideoCapture('Sfiles/Vehicle1.mp4')

while video.isOpened():
    check, frame = video.read()
    frame = cv2.resize(frame, (680, 400))
    gray = cv2.cvtColor(frame, cv2.COLOR_BGR2GRAY)

    vehicles = vehicle_classifier.detectMultiScale(gray, 1.3, 5)

    print(vehicles)

    for (x, y, w, h) in vehicles:
        cv2.rectangle(frame, (x, y), (x + w, y + h), (127, 0, 255), 2)
        cv2.imwrite('SFiles/Vehicles/Vehicle_{0}.png'.format(
            datetime.datetime.now().strftime("%d%m%y_%H%M")
        ),
            frame
        )

cv2.imshow('Vehicle detection', frame)

if cv2.waitKey(25) & 0xFF == ord('q'):
    break

video.release()
cv2.destroyAllWindows()
```

Links of Resources used :

* `Video used : <https://pixabay.com/videos/traffic-car-highway-street-27260/>`_.

* `Vehicle classifier xml

<https://raw.githubusercontent.com/andrewsobral/vehicle_detection_haarcascades/master/cars.xml>`_.

Screenshots :

