Assignment 6

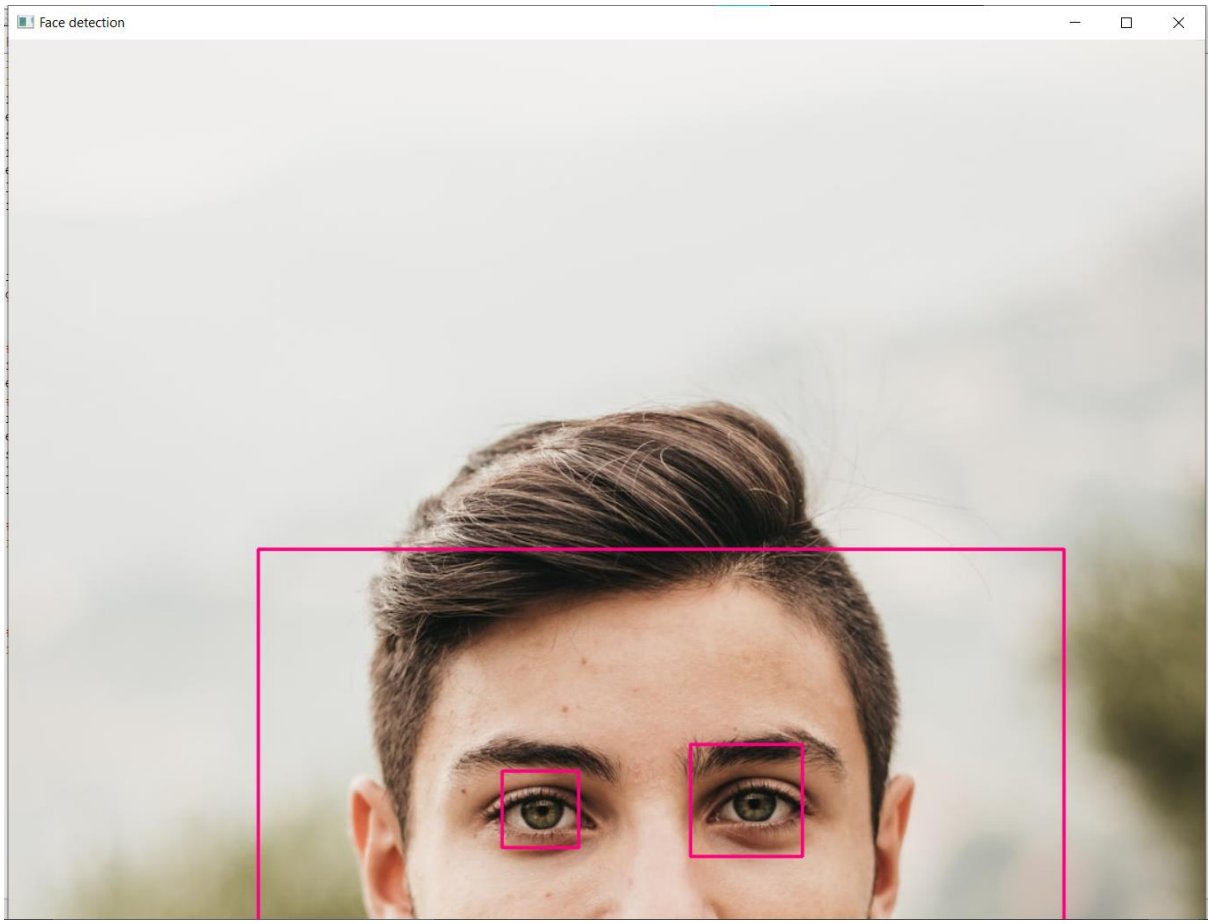
Write a HaarCasCade Py code to detect objects.

Code:

```
import cv2
import datetime
face_classifier=cv2.CascadeClassifier("haarcascade_frontalface_default.xml")
eye_classifier=cv2.CascadeClassifier("haarcascade_eye.xml")
lb_classifier=cv2.CascadeClassifier("haarcascade_lowerbody.xml")
fb_classfier=cv2.CascadeClassifier("haarcascade_fullbody.xml")
car_classifier=cv2.CascadeClaasifier("harcascade_cars.xml")



img=cv2.imread('ts.jpg')
gray=cv2.cvtColor(img, cv2.COLOR_BGR2HSV)


#detect the faces from the video using detectMultiScale function
faces=face_classifier.detectMultiScale(gray,1.3,5)
eyes=eye_classifier.detectMultiScale(gray,1.3,5)
lb=lb_classifier.detectMultiScale(gray,1.3,5)
fb=fb_classfier.detectMultiScale(gray,1.3,5)

#drawing rectangle boundries for the detected face
for(fx,fy,fw,fh) in faces:
    cv2.rectangle(img, (fx,fy), (fx+fw,fy+fh), (127,0,255), 2)
    cv2.imshow('Face detection', img)
#drawing rectangle boundries for the detected cars
for(fx,fy,fw,fh) in cars:
    cv2.rectangle(img, (fx,fy), (fx+fw,fy+fh), (255,255,0), 2)
    cv2.imshow('Face detection', img)
#drawing rectangle boundries for the detected frontbody
for(fbx,fby,fbw,fbh) in fb:
    cv2.rectangle(img, (fbx,fby), (fbx+fbw,fby+fbh), (127,0,255), 2)
    cv2.imshow('Face detection', img)

#drawing rectangle boundries for the detected lowerbody
for(lx,ly,lw,lh) in lb:
    cv2.rectangle(img, (lx,ly), (lx+lw,ly+lh), (127,0,255), 2)
    cv2.imshow('Face detection', img)

#drawing rectangle boundries for the detected eyes
for(ex,ey,ew,eh) in eyes:
    cv2.rectangle(img, (ex,ey), (ex+ew,ey+eh), (230,0,191), 2)
    cv2.imshow('Face detection', img)
```

Output:

Face and Eye detection:



Original photo of car

Detected Photo:

Full Body Detection: