

VIT IOT - (Industry Certificate Program)

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Assignment 6

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

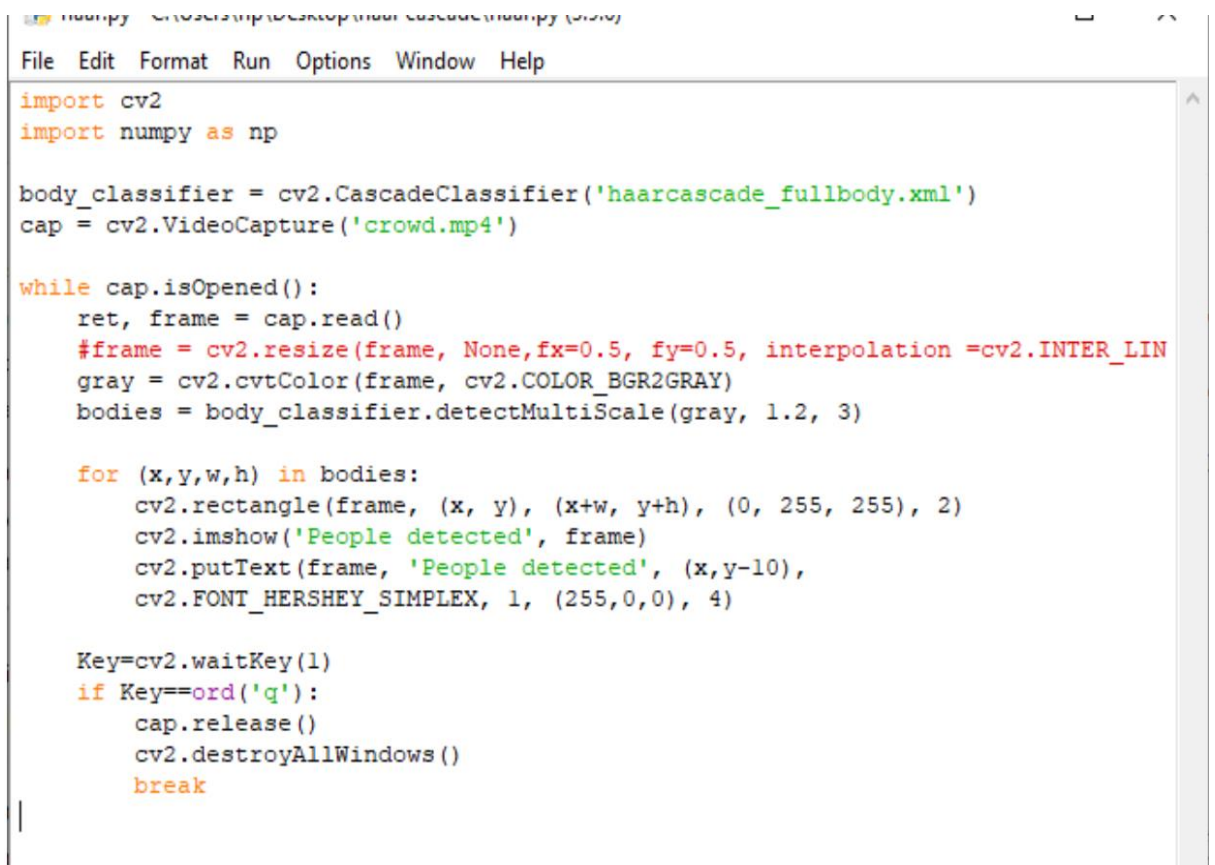
CODE:

```
import cv2
import numpy as np
body_classifier =
cv2.CascadeClassifier('haarcascade_fullbody.xml')
cap = cv2.VideoCapture('crowd.mp4')

while
    cap.isOpened(
    ): ret, frame =
    cap.read()
    #frame = cv2.resize(frame, None,fx=0.5, fy=0.5, interpolation
    =cv2.INTER_LINEAR) gray = cv2.cvtColor(frame,
    cv2.COLOR_BGR2GRAY)
    bodies = body_classifier.detectMultiScale(gray, 1.2, 3)

    for (x,y,w,h) in bodies:
        cv2.rectangle(frame, (x, y), (x+w, y+h), (0,
        255, 255), 2)cv2.imshow('People detected',
        frame) cv2.putText(frame, 'People
```

```
detected', (x,y-10),  
cv2.FONT_HERSHEY_SIMPLEX, 1,  
(255,0,0), 4)  
Key=cv2.w  
aitKey(1)if  
Key==ord('q'):  
cap.release()  
cv2.destroyAllWindows()  
break
```



```
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import numpy as np  
  
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cap = cv2.VideoCapture('crowd.mp4')  
  
while cap.isOpened():  
    ret, frame = cap.read()  
    #frame = cv2.resize(frame, None, fx=0.5, fy=0.5, interpolation=cv2.INTER_LINEAR)  
    gray = cv2.cvtColor(frame, cv2.COLOR_BGR2GRAY)  
    bodies = body_classifier.detectMultiScale(gray, 1.2, 3)  
  
    for (x,y,w,h) in bodies:  
        cv2.rectangle(frame, (x, y), (x+w, y+h), (0, 255, 255), 2)  
        cv2.imshow('People detected', frame)  
        cv2.putText(frame, 'People detected', (x,y-10),  
            cv2.FONT_HERSHEY_SIMPLEX, 1, (255,0,0), 4)  
  
    Key=cv2.waitKey(1)  
    if Key==ord('q'):  
        cap.release()  
        cv2.destroyAllWindows()  
        break
```

OUTPUT:

