Module 8

Write a code to track the pedestrian in a video. Use haar cascade pretrained model to achieve the same.

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Topic: Computer vision and Image processing

Importing required libraries

```
import cv2
```

Creating body classifier using haarcascade_fullbody.xml

```
body_classifier = cv2.CascadeClassifier('C:/Users/HP/Desktop/Comp. vis. & image processing/haarcascade_fullbody.xml')
```

Initiate video capture for video file

```
cap = cv2.VideoCapture('C:/Users/HP/Desktop/Comp. vis. & image processing/walking.avi')
```

Looping the video inside a while loop

```
while cap.isOpened():

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

  #converting video into Gray, where as RGB is time consuming
  gray = cv2.cvtColor(frame, cv2.COLOR_BGR2GRAY)

  # Pass frame to our body classifier
  bodies = body_classifier.detectMultiScale(gray, 1.2, 3)
```

Extract bounding boxes for any bodies identified

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

  if cv2.waitKey(1) == 13:
    break

cap.release()
cv2.destroyAllWindows()
```