Machine Learning Internship Session 3

Face Dataset - Coding Sheet

Python is a case sensitive language and proper indentation should be followed while programming

```
import cv2
import os

cam = cv2.VideoCapture(1)
#cam.set(3, 240) # set video width
#cam.set(4, 240) # set video height

face_detector = cv2.CascadeClassifier('0_haarcascade_frontalface_default.xml')

# For each person, enter one numeric face id
face_id = input('\n enter user id end press <return> ==>  ')

print("\n [INFO] Initializing face capture. Look the camera and wait ...")
# Initialize individual sampling face count
count = 0

while(True):

    ret, img = cam.read()
    img = cv2.flip(img, 1) # flip video image vertically
    gray = cv2.cvtColor(img, cv2.COLOR_BGR2GRAY)
    faces = face_detector.detectMultiScale(gray, 1.3, 5)

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

        cv2.rectangle(img, (x,y), (x+w,y+h), (0,255,0), 2)
        count += 1
```

```
        print(count)


        # Save the captured image into the datasets folder
        cv2.imwrite("dataset/User." + str(face_id) + '.' + str(count) + ".jpg", gray[y:y+h,x:x+w])


        cv2.imshow('image', img)
    cv2.imshow('live', img)
    k = cv2.waitKey(10) & 0xff # Press 'q' for exiting video
    if k == ord('q'):
        break
    elif count >= 50: # Take 50 face sample and stop video
         break

# Do a bit of cleanup
print("\n [INFO] Exiting Program and cleanup stuff")
cam.release()
cv2.destroyAllWindows()
```

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