ASSIGNMENT – 6

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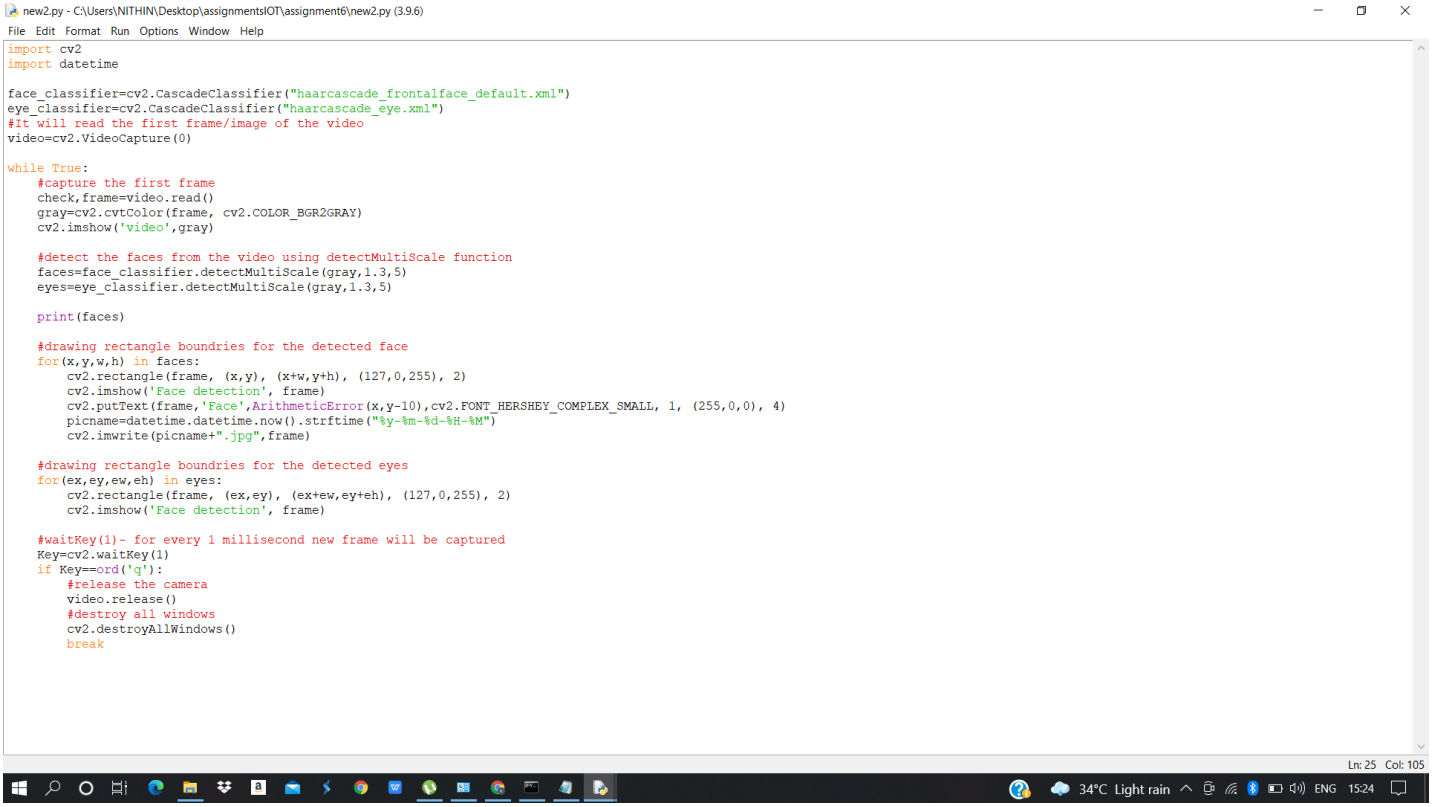
PYTHON CODE:

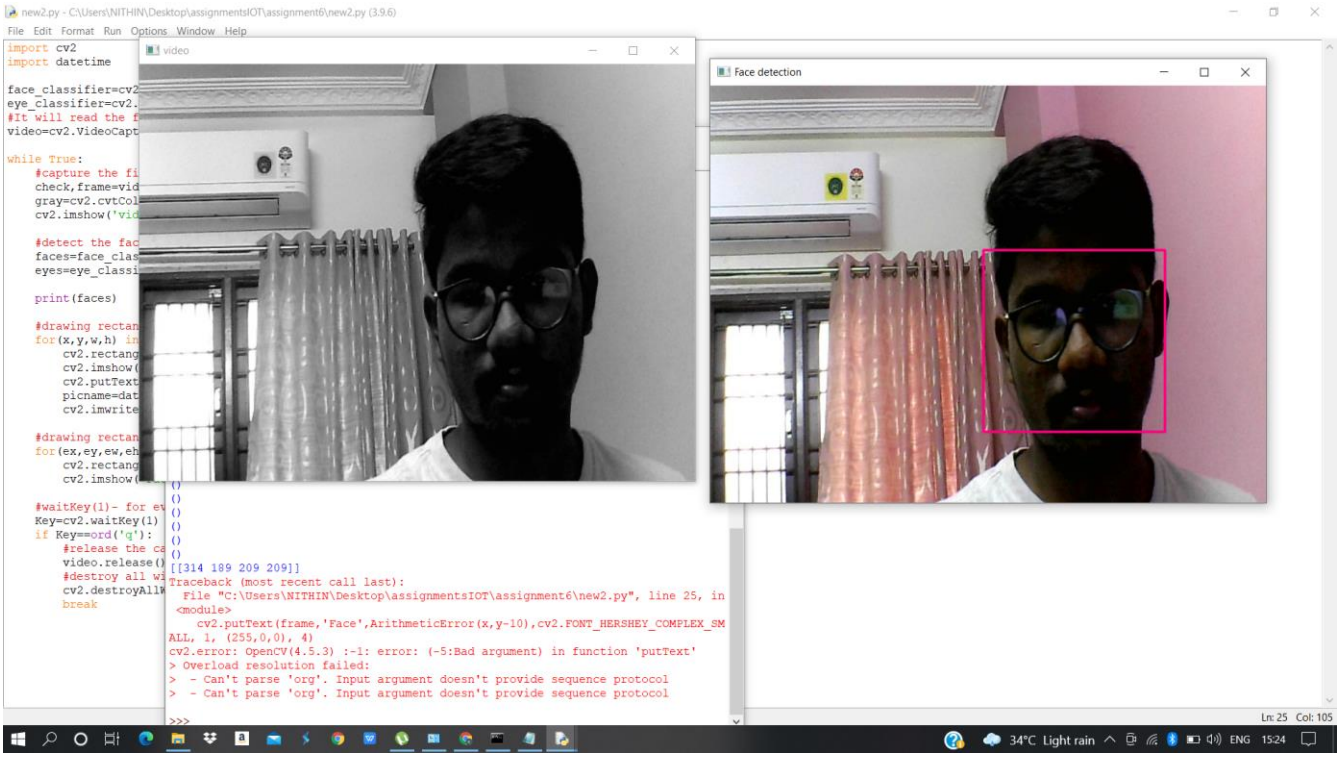
```
import cv2
import datetime

face_classifier=cv2.CascadeClassifier("haarcascade_frontalface_default.xml")
eye_classifier=cv2.CascadeClassifier("haarcascade_eye.xml")
#It will read the first frame/image of the video
video=cv2.VideoCapture(0)

while True:
    #capture the first frame
    check,frame=video.read()
    gray=cv2.cvtColor(frame, cv2.COLOR_BGR2GRAY)
    cv2.imshow('video',gray)

    #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)
```

```
  print(faces)

   #drawing rectangle boundries for the detected face
   for(x,y,w,h) in faces:
      cv2.rectangle(frame, (x,y), (x+w,y+h), (127,0,255), 2)
      cv2.imshow('Face detection', frame)
      cv2.putText(frame,'Face',ArithmeticError(x,y-
10),cv2.FONT_HERSHEY_COMPLEX_SMALL, 1, (255,0,0), 4)
      picname=datetime.datetime.now().strftime("%y-%m-%d-%H-%M")
      cv2.imwrite(picname+".jpg",frame)

   #drawing rectangle boundries for the detected eyes
   for(ex,ey,ew,eh) in eyes:
      cv2.rectangle(frame, (ex,ey), (ex+ew,ey+eh), (127,0,255), 2)
      cv2.imshow('Face detection', frame)

   #waitKey(1)- for every 1 millisecond new frame will be captured
   Key=cv2.waitKey(1)
   if Key==ord('q'):
      #release the camera
      video.release()
      #destroy all windows
```

cv2.destroyAllWindows()

Break




new2.py - C:\Users\NITHIN\Desktop\assignmentsIOT\assignment6\new2.py (3.9.6)
File Edit Format Run Options Window Help
import cv2
import datetime
face_classifier=cv2
eye_classifier=cv2.
#It will read the f
video=cv2.VideoCapt
while True:
#capture the fi
check,frame=vid
gray=cv2.cvtCol
cv2.imshow('vid
#detect the fac
faces=face_cla
eyes=eye_classi
print(faces)
#drawing rectan
for(x,y,w,h) in
cv2.rectang
cv2.imshow(
cv2.putText
picname=dat
cv2.imwrite
#drawing rectan
for(ex,ey,ew,eh
cv2.rectang
cv2.imshow(
#waitKey(1)- for ev
Key=cv2.waitKey(1)
if Key==ord('q'):
#release the ca
video.release()
#destroy all wi
cv2.destroyAllW
break
video
Face detection
()
()
()
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()
()
[[314 189 209 209]]
Traceback (most recent call last):
File "C:\Users\NITHIN\Desktop\assignmentsIOT\assignment6\new2.py", line 25, in
<module>
cv2.putText(frame,'Face',ArithmeticError(x,y-10),cv2.FONT_HERSHEY_COMPLEX_SM
ALL, 1, (255,0,0), 4)
cv2.error: OpenCV(4.5.3) :-1: error: (-5:Bad argument) in function 'putText'
> Overload resolution failed:
> - Can't parse 'org'. Input argument doesn't provide sequence protocol
> - Can't parse 'org'. Input argument doesn't provide sequence protocol
>>>
Ln: 25 Col: 105
34°C Light rain
ENG
15:24