VIT EXTERNSHIP GUIDED PROJECTS

Name: Masetti Anil Kumar

Email: anil.18bcd7141@vitap.ac.in

Mobile no: 6300366825

Assignment No: 6

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

Python Code:

```python
import cv2
face=cv2.CascadeClassifier("haarcascade_frontalface_default(1).xml")
eye=cv2.CascadeClassifier("haarcascade_eye.xml")
#It will read the first frame/image of the video
cam = cv2.VideoCapture(0)

while cam.isOpened():
    is_frame, frame = cam.read()
    face_pred = face.detectMultiScale(
            frame, 1.3, 4
        )
    for (x,y,w,h) in face_pred:
        frame = cv2.rectangle(frame,(x,y),
        (x+w,y+h),(0,255,0), thickness=2)
        frame = cv2.putText(frame,"Face",(x,y-3),
        cv2.FONT_HERSHEY_SIMPLEX,fontScale=0.5,thickness=2,
        color=(0,0,255))
    eye_pred = eye.detectMultiScale(
            frame, 1.3, 3
        )
    for (x,y,w,h) in eye_pred:
        frame = cv2.rectangle(frame,(x,y),
        (x+w,y+h),(0,255,0), thickness=2)
        frame = cv2.putText(frame,"Eye",(x,y-3),
        cv2.FONT_HERSHEY_SIMPLEX,fontScale=0.5,thickness=2,
        color=(0,0,255))
    cv2.imshow("Object Detection System",frame)
    if cv2.waitKey(2) & 0xFF == ord('q'):
        break
cam.release()
cv2.destroyAllWindows()
```

Output: