

## VIT EXTERNSHIP GUIDED PROJECTS

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**Assignment No: 5**


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

**Python Code:**

```
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:

 Object Detection System

