

ASSIGNMENT 6

CODE:

```
import cv2
import os
data_file_path = "/Users/gowthambg/Downloads/req"
i=0
classifiers = {
    file_name.replace(".xml", ""): cv2.CascadeClassifier(
        os.path.join(data_file_path, file_name)
    )
    for file_name in os.listdir(data_file_path)
}

cam = cv2.VideoCapture(0)

assert cam.isOpened(), "Camera is not available."

while cam.isOpened():
    is_frame, frame = cam.read()
    for classifier_name in classifiers.keys():
        pred = classifiers[classifier_name].detectMultiScale(
            frame, 1.3, 5
        )
        for (x, y, w, h) in pred:
            frame = cv2.rectangle(frame, (x, y),
                                   (x+w, y+h), (0, 255, 0), thickness=2)
            frame = cv2.putText(frame, classifier_name, (x, y-3),
                                   cv2.FONT_HERSHEY_SIMPLEX, fontScale=0.5,
                                   thickness=2,
                                   color=(0, 0, 255))
        cv2.imshow("Object Detection System", frame)
        cv2.imwrite(f"scrnshts_{i}.png", frame,)
        if cv2.waitKey(2) & 0xFF == ord('q'):
            break
    i+=1
cam.release()
cv2.destroyAllWindows()
```

OUTPUT SCREENSHOTS:

