

## CODE

```
import face_recognition

import cv2
import numpy as np

import csv
import os
from datetime import datetime

video_capture = cv2.VideoCapture(0)

aryan_image = face_recognition.load_image_file("images/aryan.jpg")
aryan_encoding = face_recognition.face_encodings(aryan_image)[0]

anshuman_image = face_recognition.load_image_file("images/anshuman.jpg")
anshuman_encoding = face_recognition.face_encodings(anshuman_image)[0]

shivay_image = face_recognition.load_image_file("images/shivay.jpg")
shivay_encoding = face_recognition.face_encodings(shivay_image)[0]

sourav_image = face_recognition.load_image_file("images/sourav.jpg")
sourav_encoding = face_recognition.face_encodings(sourav_image)[0]
```

```
known_face_encoding = [  
    aryan_encoding,    anshuman_encoding,  
    shivay_encoding,   sourav_encoding  
  
]
```

```
known_faces_names = [  
    "Aryan Yadav",  
    "Anshuman Sharma",  
    "Shivay Yadav",  
    "Sourav Patidar"  
]
```

```
students = known_faces_names.copy()
```

```
face_locations = [] face_encodings = [] face_names = [] s = True
```

```
now = datetime.now()    current_date =  
now.strftime("%Y-%m-%d")
```

```
f = open(current_date + '.csv', 'w+', newline="")  
lnwriter = csv.writer(f)
```

```

while True:

    _, frame = video_capture.read()    small_frame =

cv2.resize(frame, (0, 0), fx=0.25, fy=0.25)    rgb_small_frame =

np.ascontiguousarray(small_frame[:, :, ::-1])

    if s:

        face_locations = face_recognition.face_locations(rgb_small_frame)

face_encodings = face_recognition.face_encodings

        (rgb_small_frame, face_locations)    face_names = []

for face_encoding in face_encodings:    matches =

face_recognition.compare_faces    (known_face_encoding,

face_encoding)    name = ""    face_distance =

face_recognition.face_distance

        (known_face_encoding, face_encoding)

best_match_index = np.argmin(face_distance)    if

matches[best_match_index]:

    name = known_faces_names[best_match_index]

    face_names.append(name)

if name in known_faces_names:

    font = cv2.FONT_HERSHEY_SIMPLEX

bottomLeftCornerOfText = (10, 100)

fontScale = 1    fontColor = (0, 0, 0)

```

```

        thickness = 3

lineType = 2

        cv2.putText(frame, name + ' Present',
bottomLeftCornerOfText,
        font,
fontScale,
fontColor,
thickness,
lineType)

        if name in students:

students.remove(name)

print(students)          current_time =
now.strftime("%H:%M:%S")

lnwriter.writerow([name, current_time])

cv2.imshow("attendance system", frame)    if

cv2.waitKey(1) & 0xFF == ord('q'):

        break

        video_capture.release() cv2.destroyAllWindows()

        f.close()

```

