Studio Shodwe

"AUTOMATED ATTENDANCE SYSTEM WITH FACE DETECTION"

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Code Purpose: The code is intended to create a basic automated attendance system with the following features:

1.Face Detection: It uses the OpenCV library to perform face detection using a webcam. When a face is detected then it captures a photo of the person.

2.Data Management: It reads and updates attendance data in a CSV (Comma Separated Values) file. The CSV file stores information about students, including their IDs, names, attendance status, and a photo filename.

3.User Input: It prompts the user to enter a student ID and name.

4.Date Recording: It records the date of attendance in a human-readable format, such as "October 7, 2023."

5.Attendance Recording: It records whether a student is "Present" or "Absent" based on whether their face is detected.

•The code starts by importing necessary libraries.

•It defines a function take_attendance() to perform the attendance-taking process.
  Now inside this function
    It captures the student's ID and name from the user.
    It initializes the webcam to capture a frame.
    It converts the frame to grayscale and detects faces in the frame.
    If a face is detected, it marks the student as "Present" and captures a photo.
    If no face is detected, it marks the student as "Absent."
    It checks if the student already exists in the CSV file.
    It updates the CSV file with the student's attendance record, including
thedate, attendance status, and photo filename.