

# Attendance Management System

Using Facial
Recognition
By
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#### **Problem & Solution**

### Table of Contents



Benefits of Facial Recognition



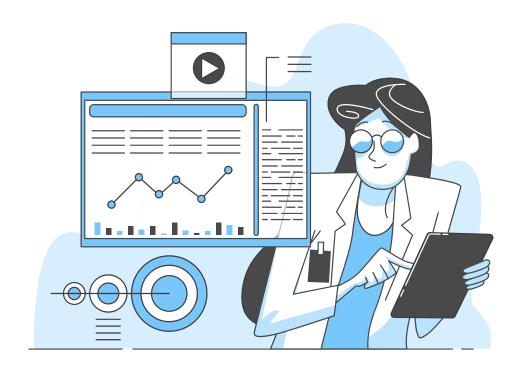
Technologies Used

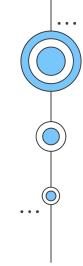


Steps to Use

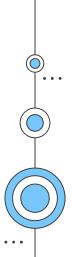


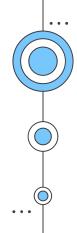
**Appendix** 

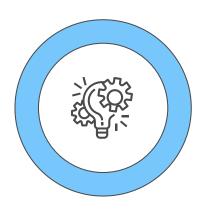




### Problem and Solution

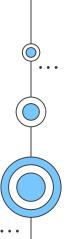






#### **Traditional Attendance**

- Is marked manually by teachers and there is a lot of manual effort in order to make sure correct attendance is marked for respective student.
- The entire process wastes some of lecture time and part of correct information is missed due to fraudulent and proxy cases.





#### Understanding the Problem





Wastage of Lecture time



Manual effors from teachers

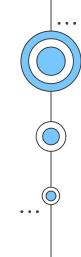


Incorrect information-class proxies etc.

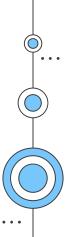


Problem in Old Information retrieval

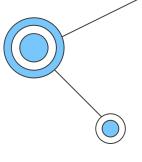




# Benefits of **Facial** Recognition







Facial Recognition is used to mark the is a biometric method of identifying an individual by comparing live capture with the stored record for that person

01

Manually Errors and fradulent proxies are eliminated

02

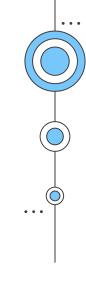
Subject/Period wise attendance

03

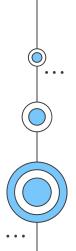
Managing daily attendance reports

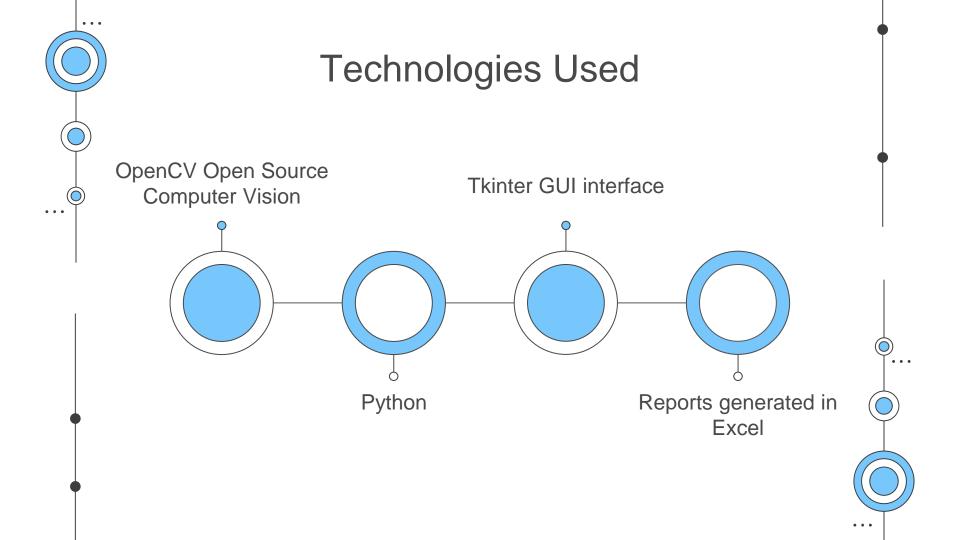
04

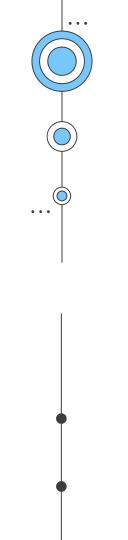
Improved productivity of teachers and punctuality in students



## Tech Stack and Algorithm Explained

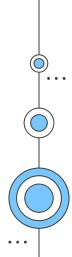






04

Steps to Use



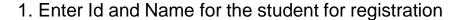


Step 1-Registration of a Student and face







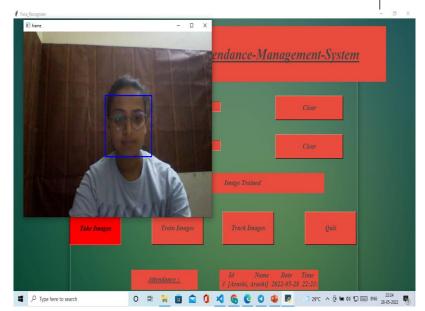


2. Click Take Images button; this will enable camera to take image sample of the student.

This Id and Name is stored in folder StudentDetails and file name is StudentDetails.csv. It takes 60 images as sample and store them in folder TrainingImage.

After completion it notify that images saved.

3. After taking image sample we have to click Train Image button. Now it take few seconds to train machine for the images that are taken by clicking Take Image button and creates a Trainner.yml file and store in TrainingImageLabel folder.







### Step 2-Face Recognition and Attendance updation



Now all initial setups are done. By clicking Track Image button camera of running machine is opened again. If face is recognised by system then Id and Name of person is shown on Image. Press Q(or q) for guit this window. After quitting it attendance of person will be stored in Attendance folder as csv file with name, id, date and time and it is also available in window.



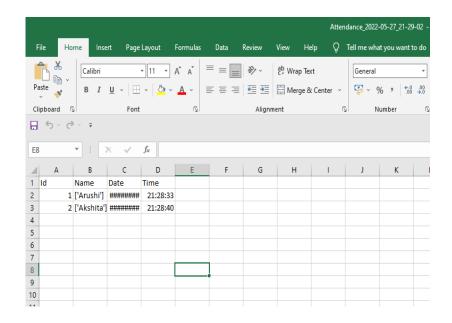




#### Step 3-Output in Excel

Attendance is getting record in an excel file which is easy to store, manage and visualize.

Interactive dashboards can be build to generate daily attendance reports

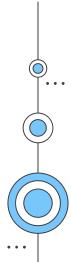






### 05

Appendix



### Training Images Folder

