

Attendance Management Using Facial Recognition

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Objective and Scope of Project:

- In the modern era of technology this software will automate the traditional way of attendance in schools and colleges.
- This will eliminate the use of papers for entering attendance data and this will help us to save trees.
- No risk of losing data because data is stored in disk and server.
- This will reduce the effort of the teachers so that they can teach more.
- This will eliminate the proxies by the friends.

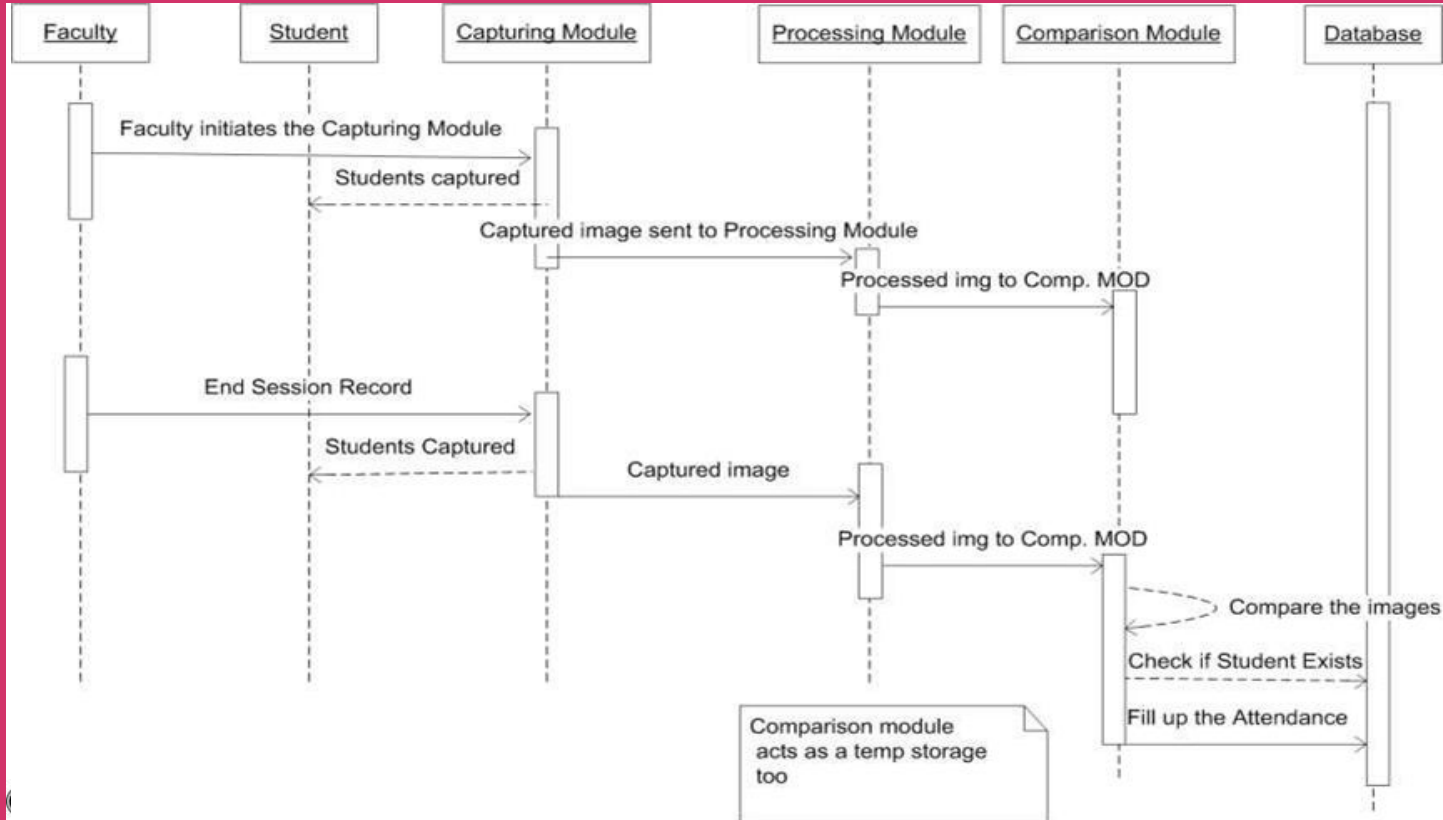


Requirement Analysis and Gathering:



1. Type of software they needed.
 - a. They needed the software that build in latest software tool and easy to operate and also don't require much maintenance.
2. Features they needed in software.
 - a. Software must be easily modifiable, easy information fetching ,dynamic database.
 - b. API is also needed for future changes.(Api must return JSON format data)
3. Computerised report generation.
 - a. Easy maintenance and retrieval of data
4. Feature requirement.
 - a. Centralised Database.
 - b. Accurate Attendance.
5. Android application.
 - a. They can afford the android application as per the application requirement.

Designing : Sequence Diagram



Coding Output :



Classroom...tendence

Roll No.

Name

Create User Dataset

Train Dataset

Take Attendance

PYTHON GUI

8:48

Fetch Attendance

1

CLICK HERE TO FETCH ATTENDANCE!

Roll No: 1

Lectures attended: 1

Lectures Delivered: 1

Your Attendance: 100.0%

ANDROID APP

Testing



Approach

- Functional Specifications are thoroughly reviewed for correctness, coverage and completeness.
- Study of Design specification and Review Requirements Coverage.
- Review the design of system components and their integration to give business solution
- Identification of units of application testing
- Preparation of database scripts for testing

Scope

- The system has different type of forms that were used for input, manipulation and output of data.
- The System will tested for the usability, functionality, reliability and performance of the application as whole and in parts.



Deployment



We can deploy our project anywhere like colleges , offices , schools etc. This attendance system can track attendance and alert employers or teachers if attendance falls short. Steps to be followed for deployment:

- Gather the dataset(one time only).
- Train the system.
- Take attendance through camera installed at site.
- Track attendance using Android App or Website.

Maintenance



- This software requires maintenance break for upgradation to next versions after regular intervals of time.
- Expert is required to analyze the fault in case of any problem.
- The complaints and reviews by the customer must be entertained regularly.
- The database need to be updated after every 6 months.



Conclusion

There may be various types of lighting conditions, seating arrangements and environments in various classrooms. Most of these conditions have been tested on the system and system has shown 100% accuracy for most of the cases. There may also exist students portraying various facial expressions, varying hair styles, beard, spectacles etc. All of these cases are considered and tested to obtain a high level of accuracy and efficiency. Thus, it can be concluded from the above discussion that a reliable, secure, fast and an efficient system has been developed replacing a manual and unreliable system. This system can be implemented for better results regarding the management of attendance and leaves. The system will save time, reduce the amount of work the administration has to do and will replace the stationery material with electronic apparatus and reduces the amount of human resource required for the purpose. Hence a system with expected results has been developed but there is still some room for improvement.

