

## **SYNOPSIS**

### **TITLE: FACIAL RECOGNITION SYSTEM**

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### **Introduction**

The modern world is marked by increasing pace at work and with this people want to spend less time over things. One of the necessities of the fast world is the attendance system prevailing in low level schools or offices which are still following the older techniques of registers to mark the presence of students and employees.

This is time taking and becomes complex as the data grows. There are many infeasible things in this technique as maintaining records, insertion of new data ,updatation of data And deletion of data. This is where the use of technology thrives.

The above things can be easily solved by automation and databases.

“Facial Recognition” technique is one of the many techniques which can be used for this.

### **Existing System**

The existing system uses *python for front end interaction*.

The database behind in *90% of the cases are SQL or Relational databases* to store all the information of users. The relational database *has problems of horizontal scalability* and it *strictly follows its ACID properties* to store data.

*The existing system has just been implemented to store facial data.*

### **Proposed System**

The system we would be developing still uses *python with it's face recognition library* but for the *front end* we are depending on *flask(python) with ReactJS framework*.

At the *backend*, the database we will use would be *NoSQL(MongoDB)*. This allows the *flexible storage of data with scalability* and *no such imposing ACID properties*.

*Due to this COVID pandemic, wearing a mask has become so important so this system would also judge whether a person is wearing a mask or not and would allow his or her entry accordingly.*

## **RDBMS AND NoSQL Integration**

As MongoDB(NoSQL) database is flexible so it could still follow RDBMS table structure to store data adding its own functionality of horizontal scalability and in no time we could still change the format of data and if we want to store few attributes we can do that by changing the model defined for mongoDB.

## **Social Concern**

There are many aspects where this system could be helpful. Some of them are:

- Person is wearing mask or not
- Attendance in offices and schools
- Decrease in crime
- Helping blinds and many more.