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Department of Computer Science and Engineering (Accredited by NBA 2019-2022)

A
Mini Project Report
on

“Face Recognition Attendance Management System”

Submitted in partial fulfillment of Database Management System Laboratory

with Mini project (20CSEL48) of IV th semester

Bachelor of Engineering

In

Computer Science and Engineering

Submitted by

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Lab Incharge
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GLOBAL ACADEMY OF TECHNOLOGY

Department of Computer Science and Engineering



CERTIFICATE

Certified that the IV Semester Mini Project in Database Management System with Mini project Entitled “**Face Recognition Attendance Management System**” carried out by **MAHESH N D** and **N DHANVINA** is submitted in partial fulfillment for the award of the **Bachelor of Engineering** in Computer Science and Engineering during the year 2021-2022. The Database Management System with Mini project report has been approved as it satisfies the academic requirements in respect of the mini project work prescribed for the said degree.

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Signature with date

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DECLARATION

We, MAHESH N D, bearing USN 1GA20CS073 and N DHANVINA, bearing USN 1GA20CS085 students of Fourth Semester B.E, Department of Computer Science and Engineering, Global Academy of Technology, Rajarajeshwarinagar Bengaluru, declare that the Mini Project entitled “**Face Recognition Attendance Management System**” has been carried out by us and submitted in partial fulfillment of the course requirements for the award of degree in Bachelor of Engineering in Computer Science and Engineering for the academic year 2021-2022.

.....

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.....

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Place: Bengaluru

Date: 10-09-2022

ABSTRACT

Facial Recognition is a technology of bio-metrics has been used in many areas like security systems, human machine interaction and image processing techniques. The conventional method in the institutions are the faculty passes an attendance sheet or make roll calls to mark attendance of the student, which sometimes disturbs discipline of the class and the sheet further goes to the admin department, which is then updated to an excel sheet. This process is quite hectic and time consuming. The proposed solution for the current problem is through automation of attendance system using face recognition. This project describes the method of detection and recognition the face in real time. Here, the camera is fixed in the classroom will capture the image. The faces in the images are detected and then recognized with the database after which the attendance is marked. The system used to calculate attendance automatically by recognizing the facial dimensions of all faces in an image and then marks attendance. The system maintains a track of student attendance and makes predictions on future attendance trends.

Maintaining attendance is very important in all the educational institutions. But it's the most difficult task in various institutions. Every institution has its own method of attendance marking system. Some institutions use the attendance sheet, RFID reader, keystroke or biometric fingerprint techniques. The attendance sheet method has difficulty to maintaining and it has some manual errors. Computers can detect a person's face using a digital image or video. It may be done by comparing the image captured in the real time with the database image. The facial characters obtained from a real time image is to be compared with the facial characters of the database image stored. The automated attendance management system gives a facility to the faculties to reduce the burden in taking attendance. This system takes the attendance automatically using face recognition. However, it may be difficult to estimate the attendance using each result of face recognition independently because of the high the face detection rate. Furthermore a student may now also be able to predict future attendance trends using Linear Regression. Face recognition has potential applications in security control, office automation, prevention of fraud, automatic personalization of environments,

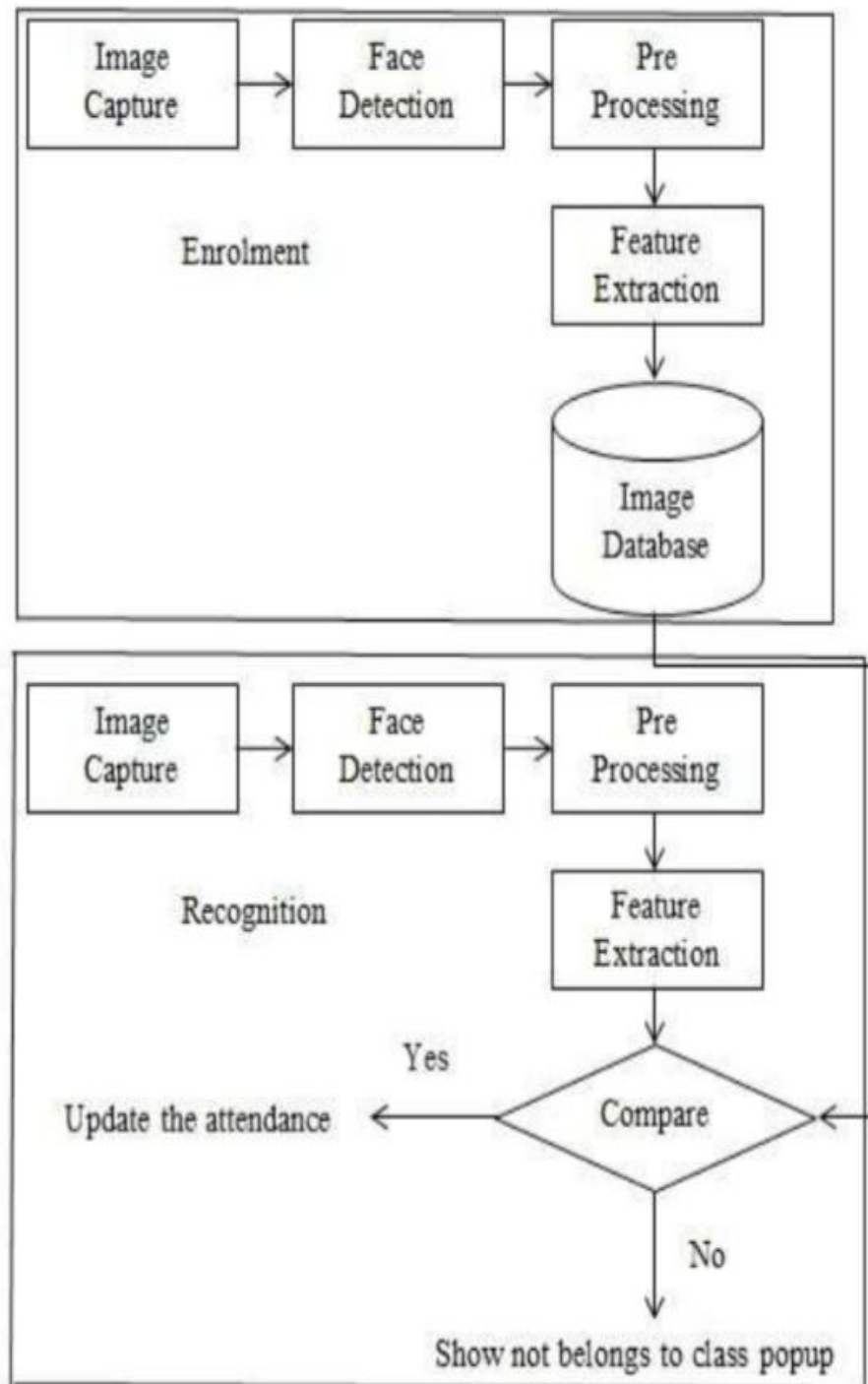


Fig. 1. Block Diagram of Proposed Automated Attendance Management System

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The satisfaction and euphoria that accompany the successful completion of any task would be incomplete without the mention of the people who made it possible and whose constant encouragement and guidance crowned our efforts with success.

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We would like to thank the faculty members and supporting staff of the Department of CSE, GAT for providing all the support for completing the Project work.

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CHAPTER 1

INTRODUCTION

In modern times, Automatic Face recognition have implemented with different types of algorithms. In (AFR) technologies have seen dramatic improvements in performance over the last few years. There are two reasons for this trend; the first is for saving the time in the classroom and accuracy in attendance will be maintained, and the second is availability of advanced technology it is more useful for the future generation. In simple words, it was a computer implementation for recognizing automatically whether the student is present in the classroom or not with the help of still image or video frame. Attendance is one of the important aspects in the classroom. At the beginning and ending of the section, the teacher should check out the students presence in the class generally teachers take the attendance and note done in the register, but it may appear that miss someone and students any give attendance multiple times.so to avoid this type. We proposed an automatic attendance management system. It was completely based on face recognition and the face detection. This both detection and recognition will efficiently mark attendance

Attendance marking are necessary to conclude and authentication of students as well as employees of organization. Many researches have been done in this area to improve and replace the traditional system of attendance by face recognition technology. Face recognition-based attendance marking system provides several advantages over conventional method of taking attendance in class. A number of algorithms for face recognition have been proposed but most of these works deal with only single image of a face at a time. By continuously observing of face information, proposed approach can solve the problem of the face detection and improve the accuracy of face recognition.This system aims to detect the position of each student and capture an image and then analyse the given image of class and mark attendance of all faces present in that image.



Figure 1 describes the working principle of the proposed methodology for automatic attendance marking system.

Face Detection

We make use of a Haar Cascade is basically a classifier which is used to detect particular objects from the source. The haarcascade frontal face default is a haar cascade designed by OpenCV to detect the frontal face. A Haar Cascade works by training the cascade on thousands of negative images with the positive image superimposed on it. The haar cascade is capable of detecting features from the source.

Face recognition

With the facial images already extracted, cropped, re-sized and usually converted to grayscale, the face recognition algorithm is responsible for finding characteristics which best describe the image To perform this task we use a LBPH(local binary patter histogram) recognizer.

CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION TO SQL

The Structured Query Language (SQL) is the language of databases. All modern relational databases, including Access, FileMaker Pro, Microsoft SQL Server, and Oracle use SQL as their basic building block. In fact, it's often the only way that you can interact with the database itself. All the graphical user interfaces that provide data entry and manipulation functionality are nothing more than SQL translators. They take the actions you perform graphically and convert them to SQL commands understood by the database.

1.1.1 SQL Command

SQL provides a wide range of statements, of which SELECT is just one. Here are some examples of other common SQL statements:

SQL INSERT and SQL DELETE: Inserts or deletes a record from a table
SQL UPDATE: Modifies records in a table

SQL CREATE and SQL DROP: Creates or deletes a table

In addition to these SQL statements, you can use SQL clauses, among them the WHERE clause used in the previous examples. These clauses serve to refine the type of data to act on. In addition to the WHERE clause, here are other commonly used clauses:

AND or OR

Combine multiple conditions to refine a SQL statement

LIKE: Compares a value to similar values using a wildcard

ORDER BY: Sorts data in ascending or descending order

If you are interested in further exploring SQL, SQL Fundamentals is a multipart tutorial that explores the components and aspects of SQL in more detail.

1.2 INTRODUCTION TO FRONT END SOFTWARE

Frontend: which is markup showed by clients or users browsers, and for doing this we should use HTML (Hyper Text Markup Language), it just shows some elements for users and doesn't run any functions. When you go to a specific URL, your request is sent to your desired server and it'll render for your HTML of the site, in fact, the server runs any server-side functions.

The Front-End used in this project is HTML along with the CSS and JS language.

- HTML stands for Hyper Text Markup Language
- HTML is the standard markup language for creating Web pages.
- HTML describes the structure of Web pages using markup
- HTML elements are the building blocks of HTML pages
- HTML elements are represented by tags
- HTML tags label pieces of content such as "heading", "paragraph", "table", and so on
- Browsers do not display the HTML tags, but use them to render the content of the page

Connectivity (front end and Back end):

PHP is an amazing and popular language!

It is powerful enough to be at the core of the biggest blogging system on the web (Word Press)! It is deep enough to run the largest social network (Facebook)! It is also easy enough to be a beginner's first server-side language!

- PHP is an acronym for "PHP: Hypertext Pre-processor"
- PHP is a widely used, open-source scripting language
- PHP scripts are executed on the server
- PHP is free to download and use
- PHP files can contain text, HTML, CSS, JavaScript, and PHP code
- PHP code are executed on the server, and the result is returned to the browser as plain HTML
- With PHP you are not limited to output HTML. You can output images, PDF files, and even flash movies. You can also output any text, such as XHTML and XML

1.3 PROJECT REPORT OUTLINE

The report is arranged in the following way:

Chapter 1: Introduction to SQL about its database, SQL query, interpreting SQL statements, AND or OR and range if SQL statements

Chapter 2: requirement specification of hardware and software

Chapter 3: Objective of the Project, design of project and developing

Chapter 4: Implementation of ER diagram and it's description

Chapter 5: Front End Design, connecting to database using PHP, Front end code of the Project

Chapter 6: Testing of project by different cases, it's process and testing objectives

Chapter 7: Outcome of the Project

CHAPTER 2

REQUIREMENT SPECIFICATION

The requirement analysis specifies the requirements needed to develop a graphic project. In this phase, we collect the requirements needed for designing the project. The requirements collected are then analyzed and carried to the next phase.

2.1 SOFTWARE REQUIREMENTS

1. **Operating System** : Windows7 or higher
2. **Database** : MySQL
3. **Scripting Language** : Python
4. **Backend development** : PHP
5. **Tools** : XamppServer

2.2 HARDWARE REQUIREMENTS

1. **Processor** : Pentium IV or above
2. **RAM** : 2.00GB or more
3. **Hard Disk** : 5GB or more
4. **Input device** : Keyboard, Camera
5. **Output device** : Laptop Display Screen

CHAPTER 3

FEATURES

This project can be divided into three major parts:

1. **Registration**
2. **Attendance Marking**
3. **CRUD operation**
4. **Prediction**

REGISTRATION:

Step 1:

Registration in this project consists of a student and admin entering the required details:-

Student :

- Name
- Registration number

Admin :

- Name
- Phone number
- E-mail ID
- Password
- Confirm Password

These details are then fed into our local database using python module 'mysql.connector', this allows us to connect to the given database.

Our database name "students" contains table "student" and "registration_details" which stores each student and admin information in the respective column .We have made use of XAMP to create a local server and provide us with DBMS functionality.

Attendance Marking

Step 2:

After the given steps are complete the program starts collecting samples of each students face,this is done using the library CV2.These samples are images of the students face and contain his ID and sample number,these samples are stored in the folder "TrainingImages" of .jpg files. All students must complete registration phase before moving ahead.

CRUD operation

Step 3:

Create

Student Add

LOGOUT

BACK

Student Name

Subject Name

Marks

Attendance

Save Student

Read / View

Student Details						LOGOUT	Add Students
USN	Student Name	SUBJECTS	MARKS	ATTENDANCE	Action		
4	DHANVINA	java	99	100	View	Edit	Delete
5	MAHESH	python	95	88	View	Edit	Delete
6	JEEVAN	Micro Controller	89	70	View	Edit	Delete
8	DARSHAN	sanskrit	99	100	View	Edit	Delete
9	NISHANTH	reactjs	98	76	View	Edit	Delete
10	MADAN	c programming	100	100	View	Edit	Delete
11	MANU KARTHIK	machine learning	95	88	View	Edit	Delete
12	KISHAN SHETTY	micro controller	92	86	View	Edit	Delete
13	SHASHANK	automata	99	94	View	Edit	Delete
14	SUGAM	dbms	100	99	View	Edit	Delete

Update

Hey! Student Updated Successfully



Student Details

LOGOUT

Add Students

USN	Student Name	SUBJECTS	MARKS	ATTENDANCE	Action
4	Dhanvina N	java	99	100	View Edit Delete
5	MAHESH	python	95	88	View Edit Delete
6	JEEVAN	Micro Controller	89	70	View Edit Delete
8	DARSHAN	sanskrit	99	100	View Edit Delete
9	NISHANTH	reactjs	98	76	View Edit Delete
10	MADAN	c programming	100	100	View Edit Delete
11	MANU KARTHIK	machine learning	95	88	View Edit Delete
13	SHASHANK	automata	99	94	View Edit Delete
14	SUGAM	dbms	100	99	View Edit Delete

Delete

Hey! Student Deleted Successfully



Student Details

LOGOUT

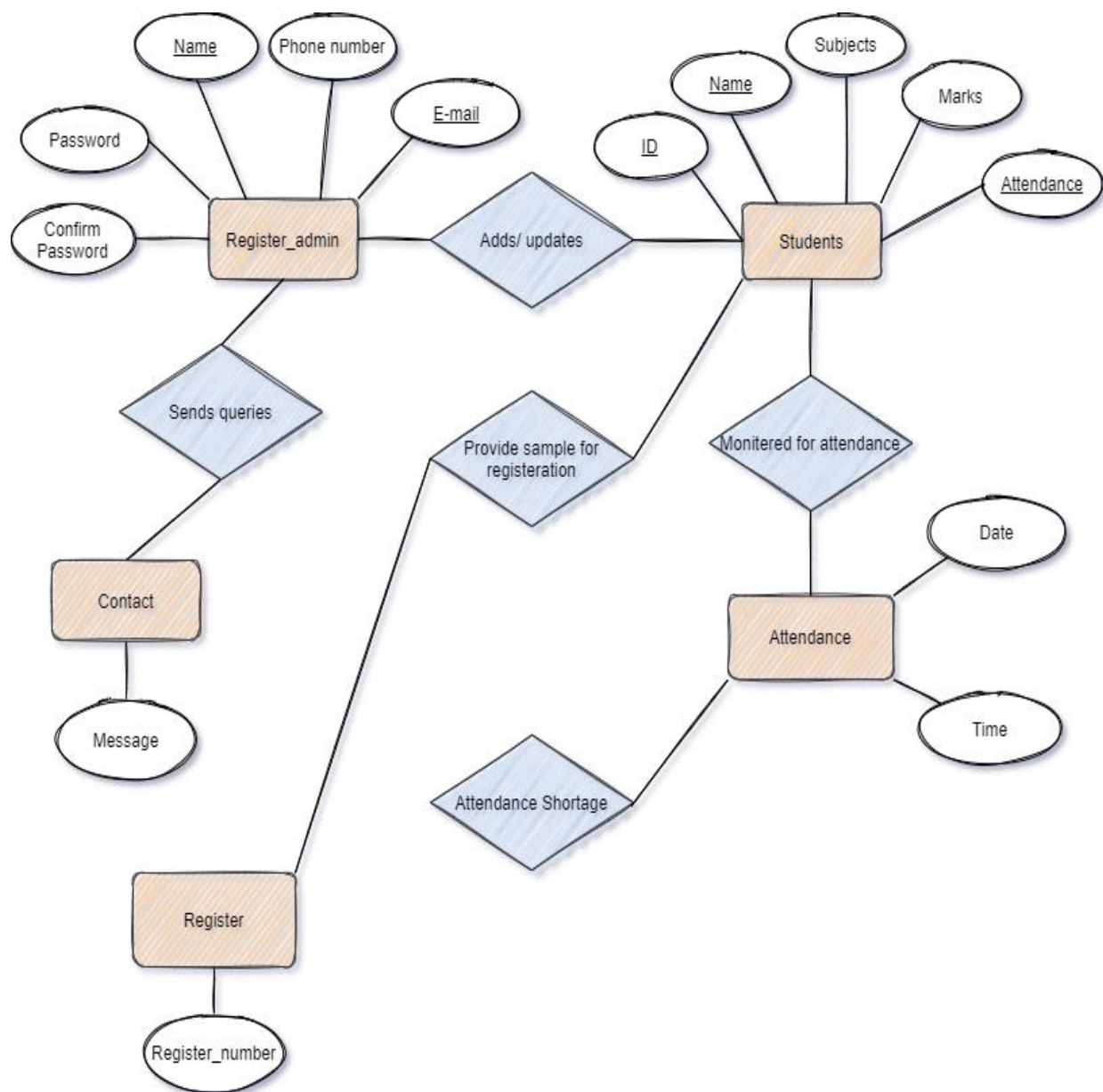
Add Students

USN	Student Name	SUBJECTS	MARKS	ATTENDANCE	Action
4	N DHANVINA	java	99	100	View Edit Delete
5	MAHESH	python	95	88	View Edit Delete
6	JEEVAN	Micro Controller	89	70	View Edit Delete
8	DARSHAN	sanskrit	99	100	View Edit Delete
9	NISHANTH	reactjs	98	76	View Edit Delete
10	MADAN	c programming	100	100	View Edit Delete
11	MANU KARTHIK	machine learning	95	88	View Edit Delete
13	SHASHANK	automata	99	94	View Edit Delete
14	SUGAM	dbms	100	99	View Edit Delete

CHAPTER 4

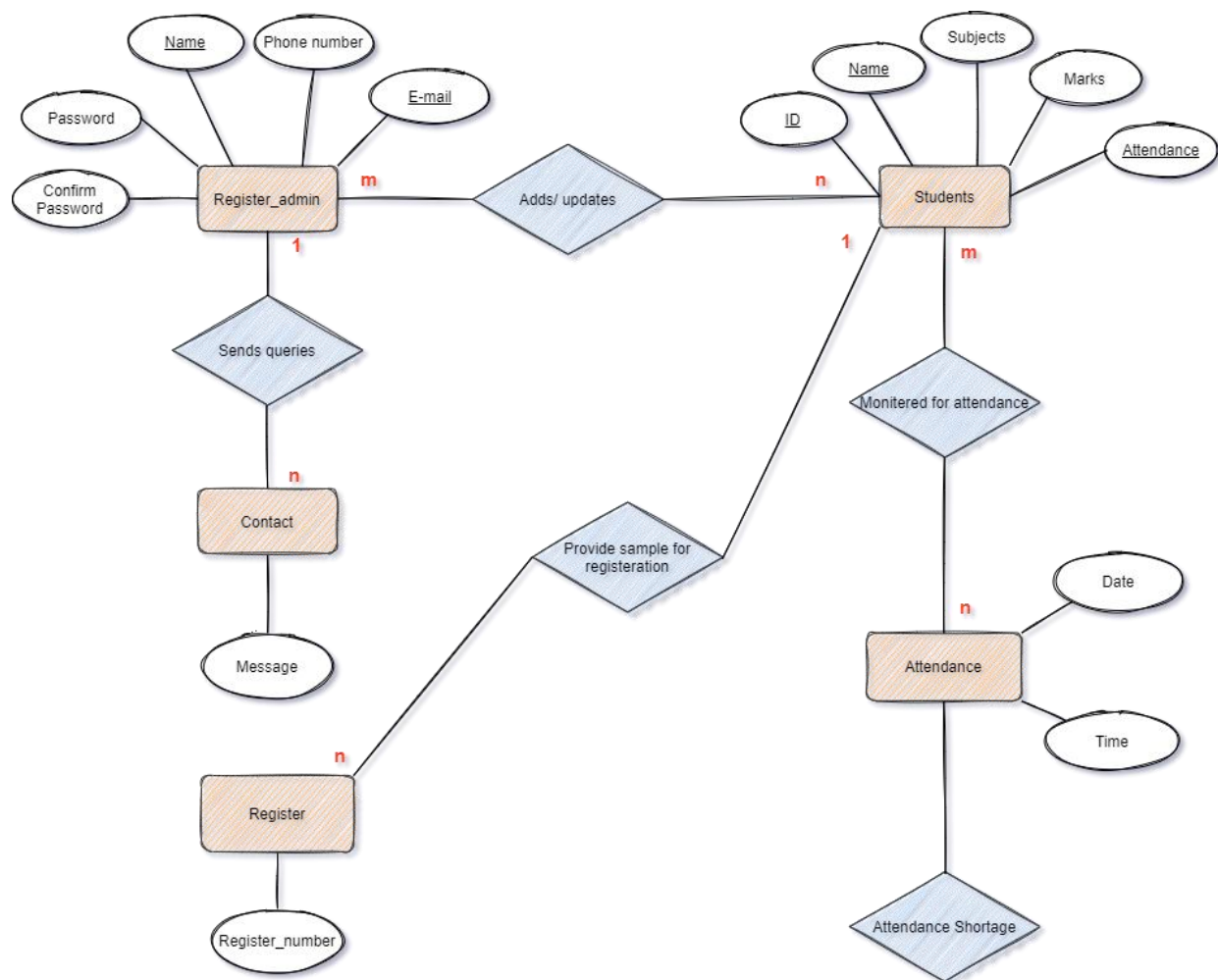
IMPLEMENTATION

4.1 ER DIAGRAM

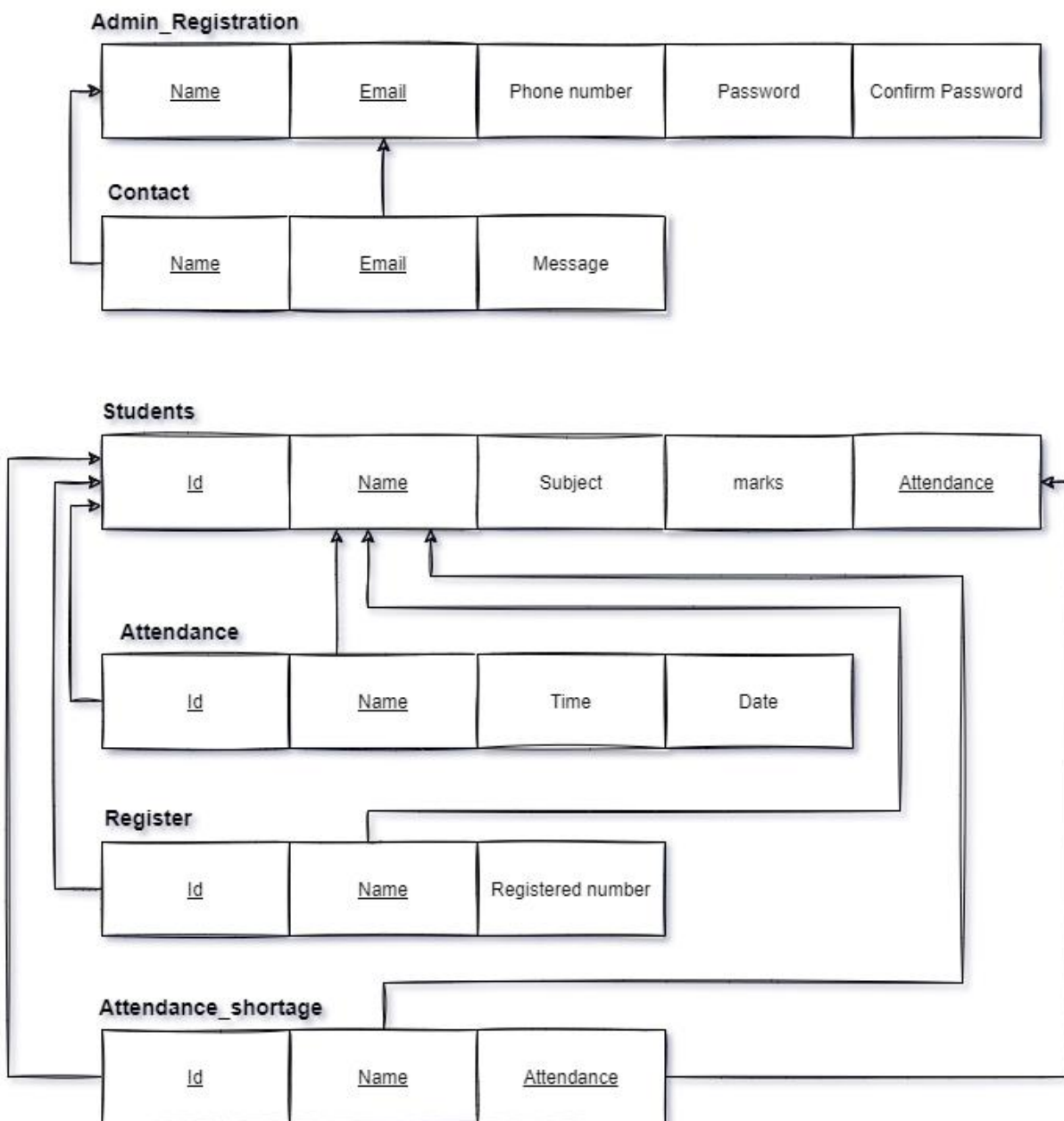


4.2 MAPPING OF ER DIAGRAM TO SCHEMA DIAGRAM

Mapping : The conceptual/internal mapping defines the correspondence between the conceptual view and the store database. It specifies how conceptual record and fields are represented at the internal level. There could be one mapping between conceptual and internal levels



4.3 MAPPING OF THE ER SCHEMA TO RELATIONS



















4.4 CREATION OF TABLES

Table Creation

STUDENT Table

```
CREATE TABLE STUDENT
(
  Id int NOT NULL AUTO_INCREMENT PRIMARY KEY,
  Name VARCHAR(191) NOT NULL,
  Subject VARCHAR(191) NOT NULL,
  Marks VARCHAR(191) NOT NULL,
  Attendance VARCHAR(191) NOT NULL
);
```

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	id 	int(6)			No	None		AUTO_INCREMENT	 Change  Drop  More
2	name	varchar(191)	utf8mb4_general_ci		No	None			 Change  Drop  More
3	subject	varchar(191)	utf8mb4_general_ci		No	None			 Change  Drop  More
4	marks	varchar(191)	utf8mb4_general_ci		No	None			 Change  Drop  More
5	attendance	varchar(191)	utf8mb4_general_ci		No	None			 Change  Drop  More

REGISTER_DETAILS Table

```
CREATE TABLE REGISTER_DETAILS
(
  Name VARCHAR(20) NOT NULL PRIMARY KEY,
  Phone_number BIGINT(20) ) NOT NULL,
  Email VARCHAR(20) NOT NULL,
  Password VARCHAR(20) NOT NULL,
  Repassword VARCHAR(20) NOT NULL
);
```

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	name	varchar(20)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/>	2	phone_number	bigint(20)			No	None			Change Drop More
<input type="checkbox"/>	3	email	varchar(20)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/>	4	password	varchar(20)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/>	5	repassword	varchar(20)	utf8mb4_general_ci		No	None			Change Drop More

CONTACT Table

```
CREATE TABLE CONTACT
(
  Name VARCHAR(20) NOT NULL PRIMARY KEY,
  Email VARCHAR(20) NOT NULL,
  Message VARCHAR(20) NOT NULL
);
```

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	Name	varchar(20)	utf8mb4_general_ci		No	None			Change Drop More
2	Email	varchar(20)	utf8mb4_general_ci		No	None			Change Drop More
3	Message	varchar(50)	utf8mb4_general_ci		No	None			Change Drop More

ATTENDANCE Table

```
CREATE TABLE ATTENDANCE
(
  COL1 VARCHAR(2) PRIMARY KEY,
  COL2 VARCHAR(8),
  COL3 VARCHAR(10),
  COL4 VARCHAR(8)
);
```

Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
COL 1	varchar(2)	utf8_general_ci		Yes	NULL			Change Drop More
COL 2	varchar(8)	utf8_general_ci		Yes	NULL			Change Drop More
COL 3	varchar(10)	utf8_general_ci		Yes	NULL			Change Drop More
COL 4	varchar(8)	utf8_general_ci		Yes	NULL			Change Drop More

CONTACT Table

CREATE TABLE CONTACT

```
(
  Id int NOT NULL AUTO_INCREMENT PRIMARY KEY,
    Name VARCHAR(191) NOT NULL,
    Subject VARCHAR(191) NOT NULL,
    Attendance VARCHAR(191) NOT NULL
);
```

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	id	int(6)			No	0			Change Drop More
2	name	varchar(191)	utf8mb4_general_ci		No	None			Change Drop More
3	subject	varchar(191)	utf8mb4_general_ci		No	None			Change Drop More
4	attendance	varchar(191)	utf8mb4_general_ci		No	None			Change Drop More

4.5 INSERTION OF TUPLES

Students Table:

```
INSERT INTO Students (`id`, `name`, `subject`, `marks`, `attendance`) VALUES
(4, 'Dhanvina N', 'java', 99, 100),
(5, 'Mahesh', 'python', 95, 74),
(6, 'Jeevan', 'Micro controller', 89, 70),
(8, 'Darshan', 'sanskrit', 99, 100),
(9, 'Nishanth', 'reactjs', 99, 100),
(10, 'madan', 'c programming', 100, 100),
(11, 'manu karthik', 'machine learning', 95, 88),
(13, 'shashank', 'automata', 99, 94),
(14, 'sugam', 'dbms', 100, 99);
```


id	name	subject	marks	attendance
4	Dhanvina N	java	99	100
5	MAHESH	python	95	74
6	JEEVAN	Micro Controller	89	70
8	DARSHAN	sanskrit	99	100
9	NISHANTH	reactjs	98	76
10	MADAN	c programming	100	100
11	MANU KARTHIK	machine learning	95	88
13	SHASHANK	automata	99	94
14	SUGAM	dbms	100	99

Register_details Table:

INSERT INTO Register_details ('name', 'phone_number', 'email', 'password', 'Repassword') VALUES

('Mahesh', 5467567575, 'mahi@gmail.com', 'mahi123', 'mahi123'),
('Jishnu', 785634782, 'jishnu@gmail.com', '123', '123'),
('Dhanvina', 587358735, 'danny@gmail.com', 'danny123', 'danny123'),
('Mahesh', 6797892542, 'mahesh@gmail.com', '123', '123'),
('Mahesh', 6871576254, 'uihgQJB@HLKAS.com', '123', '123'),
('Darshan', 7653822342, 'darshan@gmail.com', '123456', '123456');

name	phone_number	email	password	repassword
Mahesh	5467567575	mahi@gmail.com	mahi123	mahi123
Jishnu	785634782	jishnu@gmail.com	123	123
DHANVINA	587358735	danny@gmail.com	danny123	danny123
MAHESH	6797892542	mahesh@gmail.com	123	123
MAHESH	6871576254	uihgQJB@HLKAS.COM	123	123
DARSHAN	7653822342	darshan@gmail.com	123456	123456

Contact Table:

INSERT INTO Contact ('Name', 'Email', 'Message') VALUES
('Mahesh', 'Mahi@gmail.com', 'Hi guys'),
('Mahesh', 'Mahi@gmail.com', 'No Query at all'),
('Dhanvina', 'danny@gmail.com', 'Facing issue with login'),
('Nishanth', 'nishanth@gmail.com', 'Facing issue with registering'),
('Jeevan', 'jeevan@gmail.com', 'having trouble in accessing datas');

Name	Email	Message
Mahesh	Mahi@gmail.com	Hi Guys
MAHESH	mahi@gmail.com	No Query at all
DHANVINA	danny@gmail.com	Facing issue with login
NISHANTH	nishanth@gmail.com	Facing issue with registering
JEEVAN	jeevan@gmail.com	having trouble in accessing datas

Attendance Table:

```
INSERT INTO Attendance ('id', 'Name', 'Date', 'Time') VALUES
('2', 'mahesh', '07-09-2022', '11:37:39'),
('3', 'dhanvina', '07-09-2022', '11:38:39'),
('4', 'darshan', '07-09-2022', '11:39:39'),
('5', 'nishanth', '07-09-2022', '11:40:39');
```

COL 1	COL 2	COL 3	COL 4
Id	Name	Date	Time
2	mahesh	07-09-2022	11:37:39
3	dhanvina	07-09-2022	11:38:39
4	darshan	07-09-2022	11:39:39
5	nishanth	07-09-2022	11:40:39

Shortage_attendance Table :

```
INSERT INTO Shortage_attendance ('id', 'name', 'subject', 'attendance') VALUES
('5', 'mahesh', 'python', 74),
('6', 'jeevan', 'micro controller', 70);
```

id	name	subject	attendance
5	MAHESH	python	74
6	JEEVAN	Micro Controller	70

4.6 Creation of triggers

```
CREATE TRIGGER 'upper_case' BEFORE INSERT ON 'users' FOR EACH ROW BEGIN
SET NEW.f_name = UPPER(NEW.f_name);
END
```

4.7 CREATION OF STORED PROCEDURES

```
DELIMITER $$  
CREATE DEFINER ='root@'localhost'PROCEDURE'storedprocedure'()  
NO SQL  
SELECT id, name, subject, marks, attendance from Students$$  
DELIMITER;
```

FRONT END DESIGN

5.2 CONNECTIVITY TO DATABASE

- Most Web Applications :- Retrieve information from a database to alter their on-screen display-Store user data such as orders, tracking, credit card, etc. in a database.
- Permits them to adapt individual users, and provide fresh changing content.

PHP: Built-in Database Access

- PHP provides built in database connectivity for a wide range of databases - MySQL, PostgreSQL, Oracle, Berkeley DB, Informix, mSQL, Lotus Notes, and more - Starting support for a specific database may involve PHP configuration steps.
- Another advantage of using a programming language that has been designed for the creation of web apps.

High-Level Process of Using MySQL from PHP

- Create a database connection.
- Select database you wish to use.
- Perform a SQL query.
- Do something processing on query results.
- Close database connection

SELECTING A DATABASE

- `mysql_select_db()` - Pass it the database name.
- Related :- `mysql_list_dbs()`
- List databases available - `Mysql_list_tables()` ● List database tables available.

PERFORM SQL QUERY

- Create query string - `$query = 'SQL formatted string'` - `$query = 'SELECT*FROM table'`.
- Submit query to database for processing - `$result = mysql_query($query);` - For UPDATE, DELETE, DROP, etc, returns TRUE or FALSE - For SELECT, SHOW,

DESCRIBE or EXPLAIN, \$result is an identifier for the results, and does not contain the results themselves.

- \$result is called a “resource” in this case.

CREATING DATABASE CONNECTION

- Use either `mysql_connect` or `mysql_pconnect` to create database connection
- ★ `mysql_connect`: connection is closed at the end of script (end of page).
- ★ `mysql_pconnect`: creates persistent connection
- connection remains even after the end of the page
- parameters
 - ★ Server - hostname of the server.
 - ★ Username - username on the database.
 - ★ Password - password on the database - New link (`mysql_connect` only).
 - ★ reuse database connection created by previous call to `mysql_connect` - Client Flags.
- `MYSQL_CLIENT_SSL` :: Use SSL
- `MYSQL_CLIENT_COMPRESS` :: Compress data sent to MySQL.

CLOSING DATABASE CONNECTION

- `mysql_close()`
 - ★ closes database connection.
 - ★ Only works for connections opened with `mysql_connect()`.
 - ★ Connections opened with `mysql_pconnect()` ignore this call.
 - ★ Often not necessary to call this, as connections created by `mysql_connect` are closed at the end of the script anyway.

5.1 FRONT END CODE

Today, technology has become significant for each and everything for human lives, as it makes things better for living such mobile phones, computers, and tablets making huge convenience. This technology helps business to promote and avail for 24*7 all the time.

The advanced technology has benefits for both customer and business for several reasons. At the attendance point of view, face recognition helping to identify the face of human by using biometrics to map facial dimensions from an image of a person. The technology helps to compare data with a stored database to identify the concerned image. The face recognition technology is expected to reach all areas to prevent fraud and deceptions methods in the work. One of the reasons why face recognition has significance in every area is due to complicated issues like private areas.

HTML CODE OF HOME PAGE :

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>website</title>
  <link rel="stylesheet" href="style.css">
</head>
<body>
  <div class="main">
    <div class="navbar">
      <div class="menu">
        <ul>
          <li><a href="#">HOME</a></li>
          <li><a href="login.html">LOGIN</a></li>
          <li><a href="register.html">REGISTER</a></li>
          <li><a href="about.html">ABOUT</a></li>
          <li><a href="contact.html">CONTACT US</a></li>
        </ul>
      </div>
    </div>
    <div class="content"><br>
      <h1><br><span>FACE RECOGNITION <br>ATTENDANCE</span><br>MANAGEMENT
SYSTEM</h1>
      <p class="par"></p>
      <a href="contact.html"><button class="cn" style="font-size:
20px;">Contact Us</button></a>
    </div>
  </div>
</body>
</html>
```

CSS CODE OF HOME PAGE :

```
*{
  margin: 0;
  padding: 0;
}

.main{
  width: 100%;
  background: linear-gradient(to
top, rgba(0,0,0,0.5)20%, rgba(0,0,0,0.5)20%),url(image/sunset.jfif);
  background-position: center;
  background-size: cover;
  height: 100vh;
}

.navbar{
  width: 1200px;
  height: 75px;
  margin: auto;
}

.menu{
  width: 400px;
  float: left;
  height: 70px;
  color: red;
}

ul{
  float: left;
  display: flex;
  justify-content: center;
  align-items: center;
}

ul li{
  float: left;
  list-style: none;
  margin-left: 80px ;
  margin-top: 27px;
  font-size: 35px;
}

ul li a{
  text-decoration: none;
  color: rgb(233, 237, 240);
  font-family: Arial;
  font-weight: bold;
  transition: 1 sec ease-in-out;
}
```

```

ul li a:hover{
    color: red;
}

.content{
    width: 1200px;
    height: auto;
    margin: auto;
    color: #fff;
    position: relative;
    margin-top: 25px;
}

.content .par{
    padding-left: 20px;
    padding-bottom: 25px;
    font-family: arial;
    letter-spacing: 1.2px;
    line-height: 30px;
}

.content h1{
    font-family: 'Times New Roman';
    font-size: 50px;
    padding-left: 20px;
    margin-top: 9%;
    letter-spacing: 2px;
}

.content .cn{
    width: 160px;
    height: 40px;
    background: orange;
    border: none;
    margin-bottom: 10px;
    margin-left: 20px;
    font-size: 18px;
    border-radius: 10px;
    cursor: pointer;
    transition: 0.2s ease;
}

.content:hover{
    color: rgb(1, 21, 249);
    font-weight: bold;
}

.content .cn{
    text-decoration: none;
}

```

```

        color: #000;
        transition: 1s ease;
    }

    .cn:hover{
        background-color: #fff;
    }

    .content span{
        color: chartreuse;
        font-size: 60px;
    }

```

PHP CODE OF LOGIN PAGE :

```

<?php
$email = $_POST['email'];
$password = $_POST['password'];
$con = new mysqli("localhost","root","","database12");
if($con->connect_error){
    die("Failed to connect : ".$con->connect_error);
} else {
    $stmt = $con->prepare("Select * from register_details where email = ?");
    $stmt->bind_param("s",$email);
    $stmt->execute();
    $stmt_result = $stmt->get_result();
    if($stmt_result->num_rows > 0){
        $data = $stmt_result->fetch_assoc();
        if($data['password'] === $password){
            echo '<h2>Login Succesfully</h2>';
            header("Location: profile.html");
        } else {
            echo "<h2>Invalid Email or password</h2>";
        }
    } else {
        echo "<h2>Invalid Email or password</h2>";
    }
}
?

```


CHAPTER 6

TESTING

6.1 TEST CASES

The test cases provided here test the most important features of the project.

Table 6.1:Test cases

Sl No	Test Input	Expected Results	Observed Results	Remarks
1	Insert a Record	New tuple should be inserted	Query OK 1 row affected or inserted	PASS
2	Search a Record	Search from existing Records	Query OK 1 row affected or searched	PASS
3	Update a record	Update from existing records	Query OK 1 row affected or updated	PASS
4	Create Trigger	Trigger Created	Query OK Trigger created	PASS
5	Create Stored Procedure	Stored Procedure Created	Query OK Stored procedure created	PASS

CHAPTER 7

RESULTS

7.1 SNAPSHOTS



Figure 7.1 HOME page

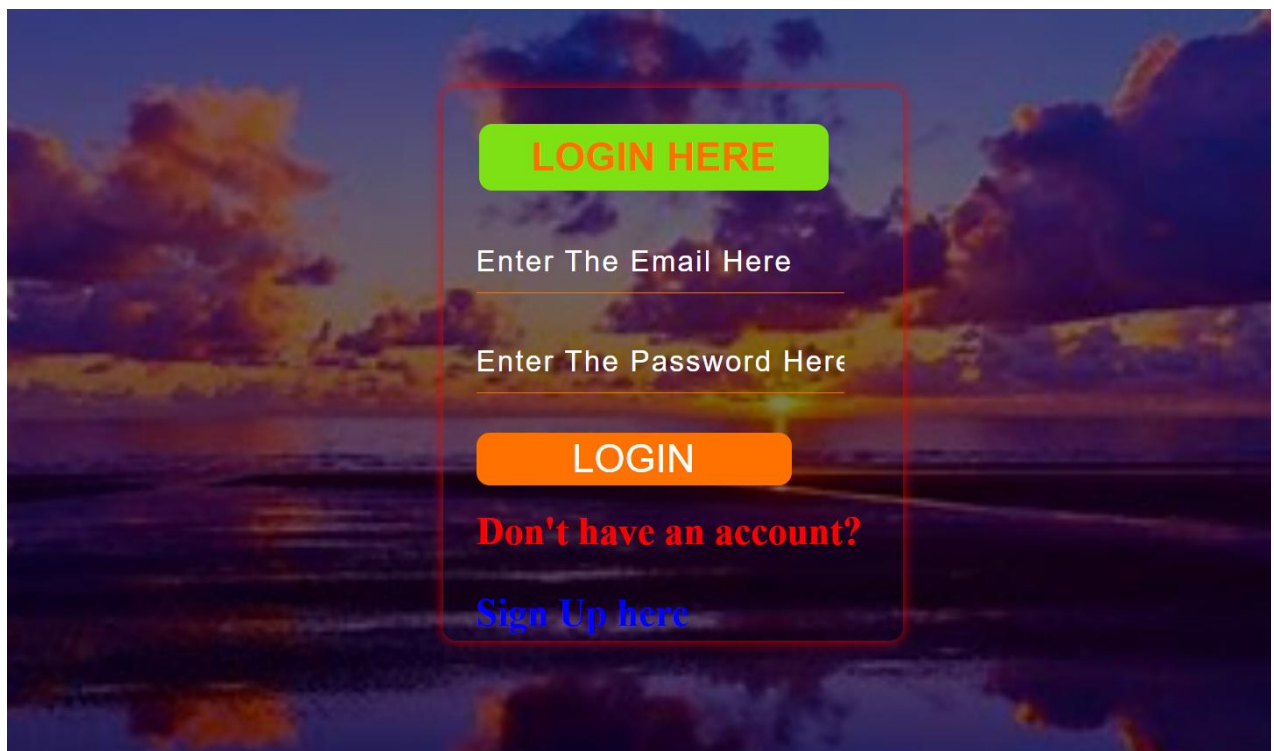


Figure 7.2 LOGIN page



Figure 7.3 ABOUT list page

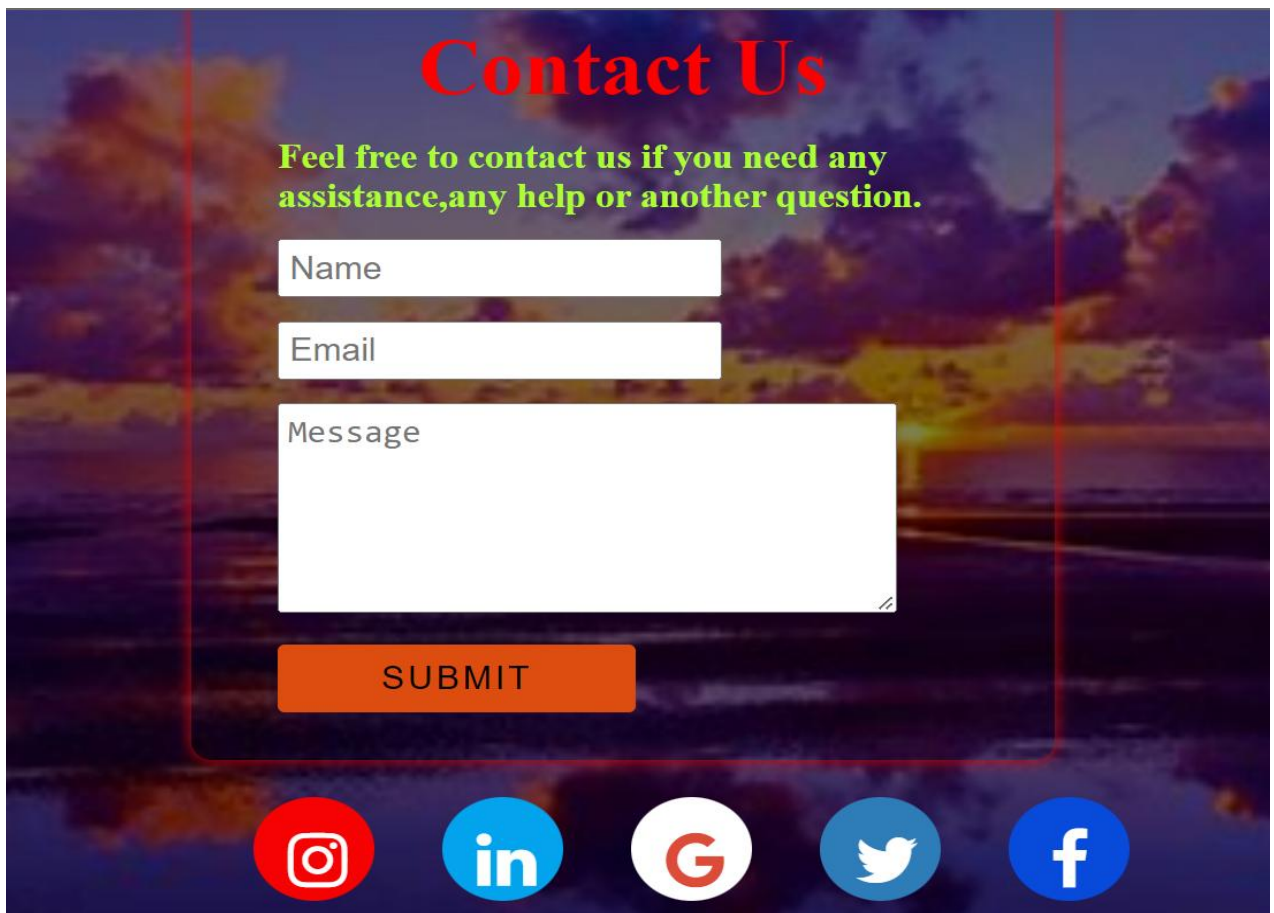


Figure 7.4 CONTACT page

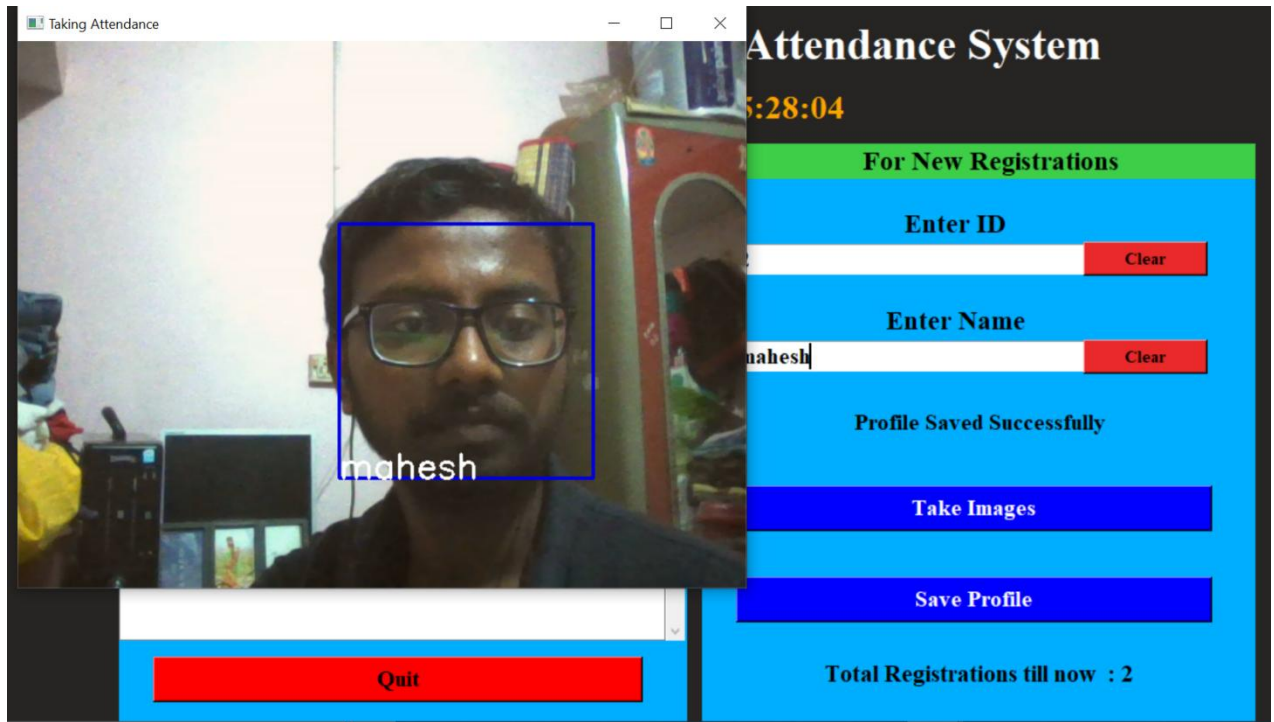


Figure 7.4 ATTENDANCE page

CONCLUSION

With the theoretical inclination of our syllabus it becomes very essential to take the at most advantage of any opportunity of gaining practical experience that comes along. The building blocks of this Major Project “**Face Recognition Attendance Management System**” was one of these opportunities. It gave us the requisite practical knowledge to supplement the already taught theoretical concepts thus making us more competent as a computer engineer. The project from a personal point of view also helped us in understanding the following aspects of project development.

- The planning that goes into implementing a project.
- The importance of proper planning and an organized methodology.
- The key element of team spirit and co-ordination in a successful project.

The project also provides us the opportunity of interacting with our teachers and to gain from their best experience.

Face recognition is an essential feature of Image processing owing to its excellence in many areas. An association of people in an school, colleges, industry, etc for the determination of attendance is one such utilization of face recognition. Keeping and monitoring of attendance records play an important function in the investigation of the execution of any business. The idea of developing an appearance control method is to computerize the common way of using attendance. The advanced face recognition technology helps in improving the performance of the students in attendance of daily activities and analysis with reduced human intervention.

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