

**Web Development Minor Project Student Management System**

**23BCA10586**

**Princess Ncube**

**Section : 6\_A**

**Submitted to:**

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**Employee Online Login System**

**1. Introduction**

The Employee Online Login System is a web-based application designed to manage employee access to company resources. This project aims to streamline the login process for employees, enabling secure access to internal systems. The system also includes an admin panel for managing user accounts and permissions.

**2. Objectives**

* Develop a fully functional PHP-based Employee Online Login System.
* Implement user authentication, including registration and login.
* Provide user role management with different access levels.
* Enable password recovery and account management features.
* Create an admin panel for managing user accounts and permissions.

**3. System Requirements**

**3.1 Hardware Requirements**

* **Server**: Apache/Nginx with PHP support
* **RAM**: Minimum 2GB
* **Storage**: Minimum 10GB free space

**3.2 Software Requirements**

* **Backend**: PHP 7.4 or higher, MySQL
* **Frontend**: HTML, CSS, JavaScript
* **Libraries**: Bootstrap (optional), jQuery

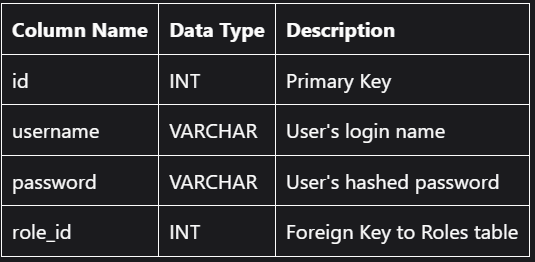
**3.3 Security Requirements**

* **SSL/TLS Certificate**: Valid SSL/TLS certificate for secure data transmission
* **Password Policy**: Strong password policy with minimum 8 characters, uppercase, lowercase, numbers, and special characters
* **Regular Updates**: Regular updates and patches for PHP, MySQL, and other software components.

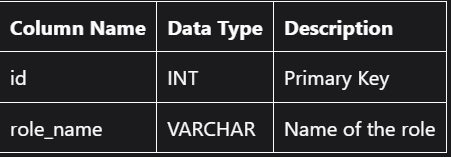
**4. System Design**

**4.1 Database Design**

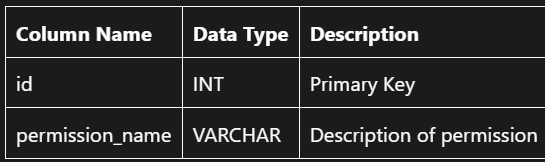
Users Table



Roles Table



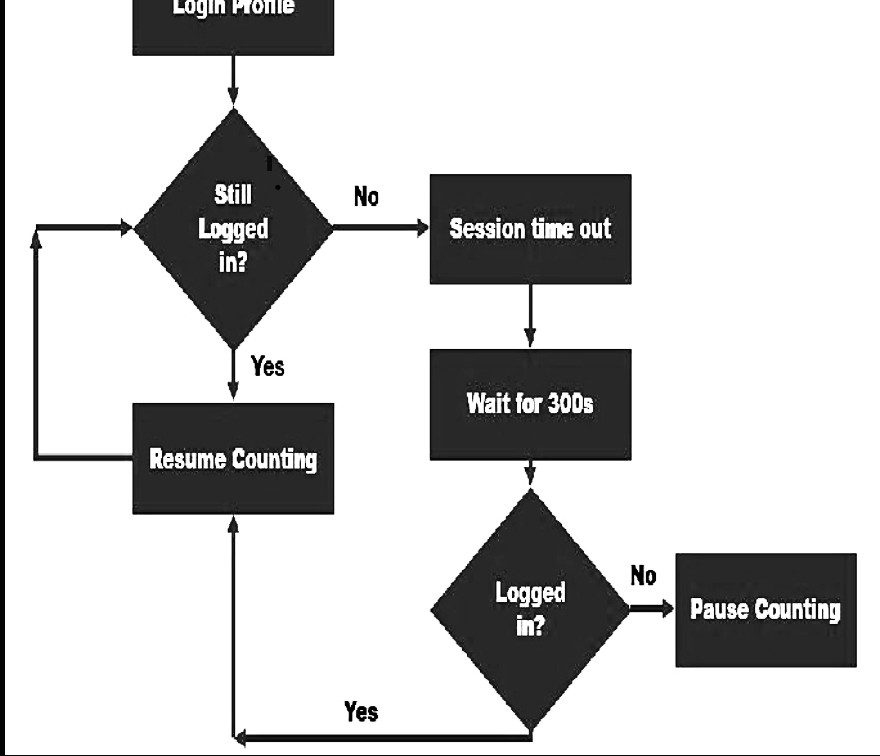
Permissions table:



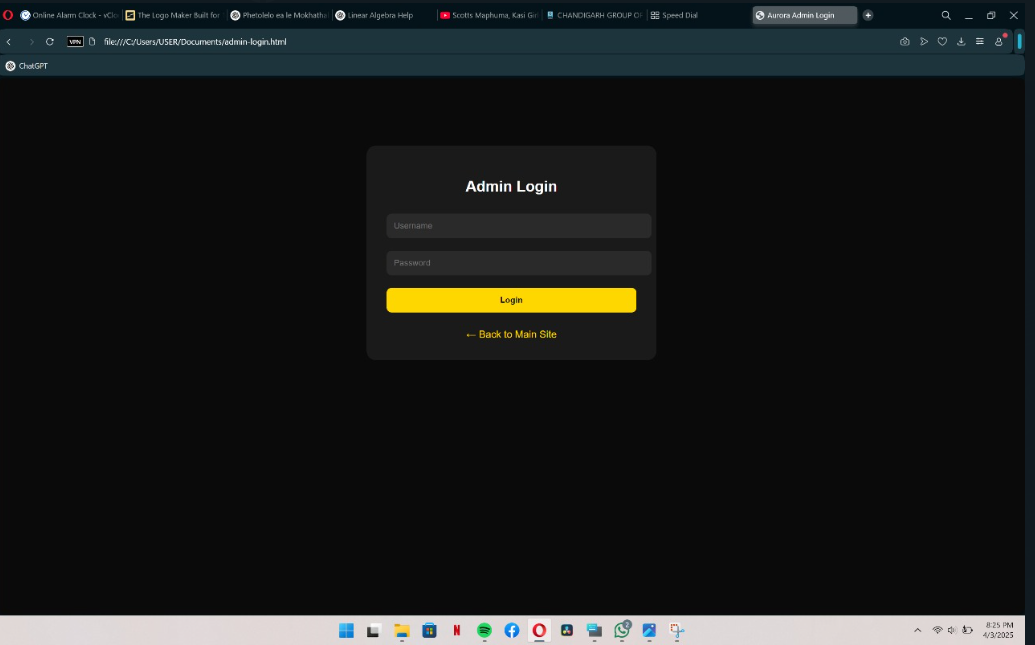
i.e **Primary Keys & Foreign Keys**: Relationships between users and roles

**4.2 System Architecture**

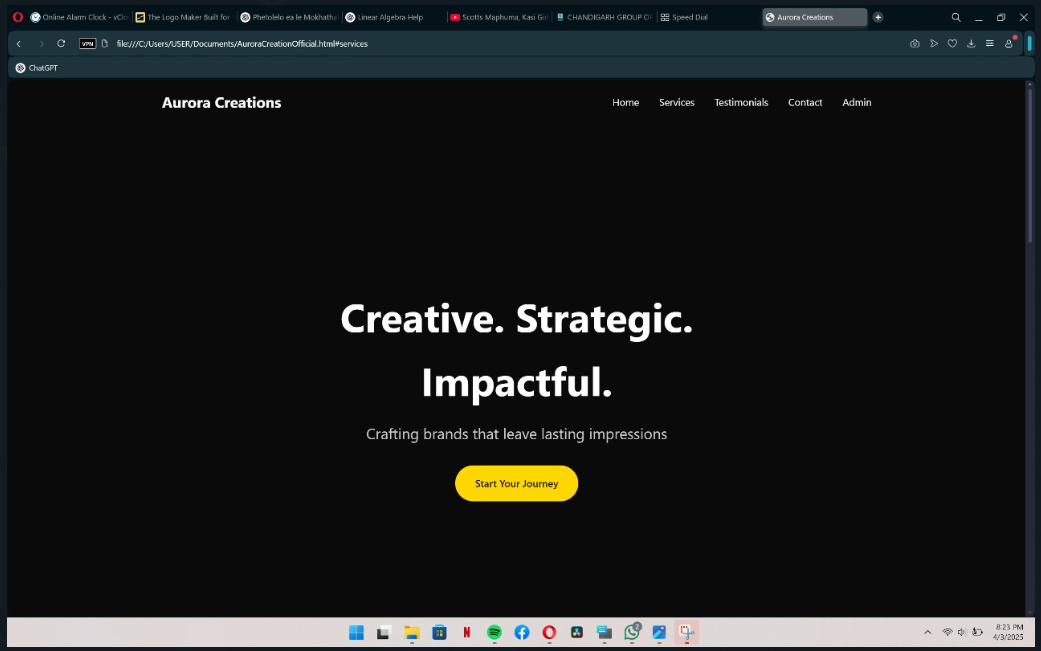
**Flowchart**:



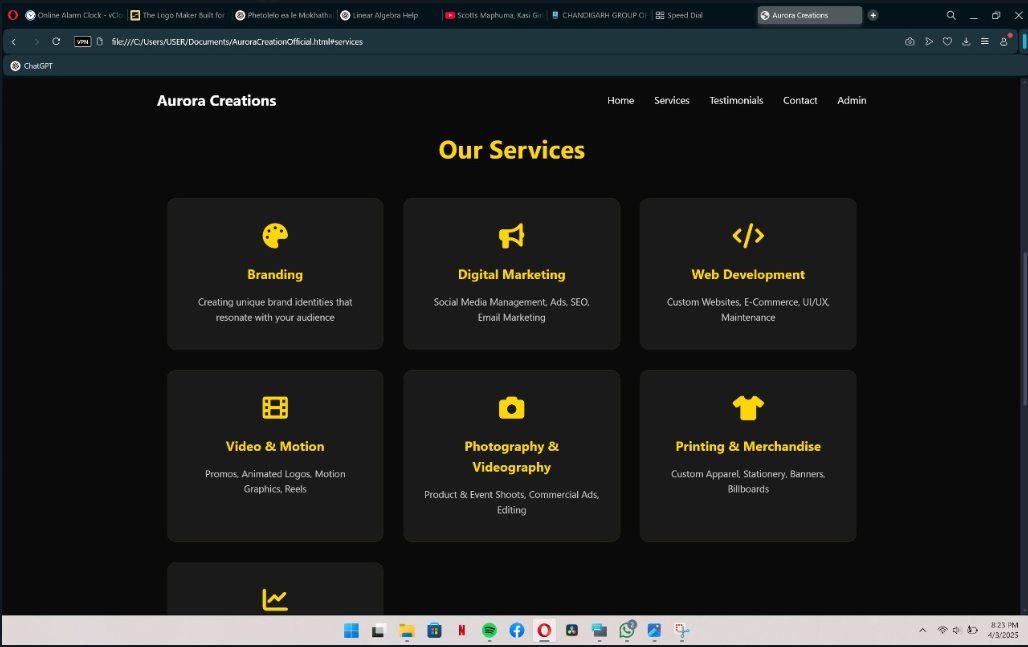
* **5. Implementation**
  1. **Modules Description**
  2. **User Authentication**: Secure login and registration system.



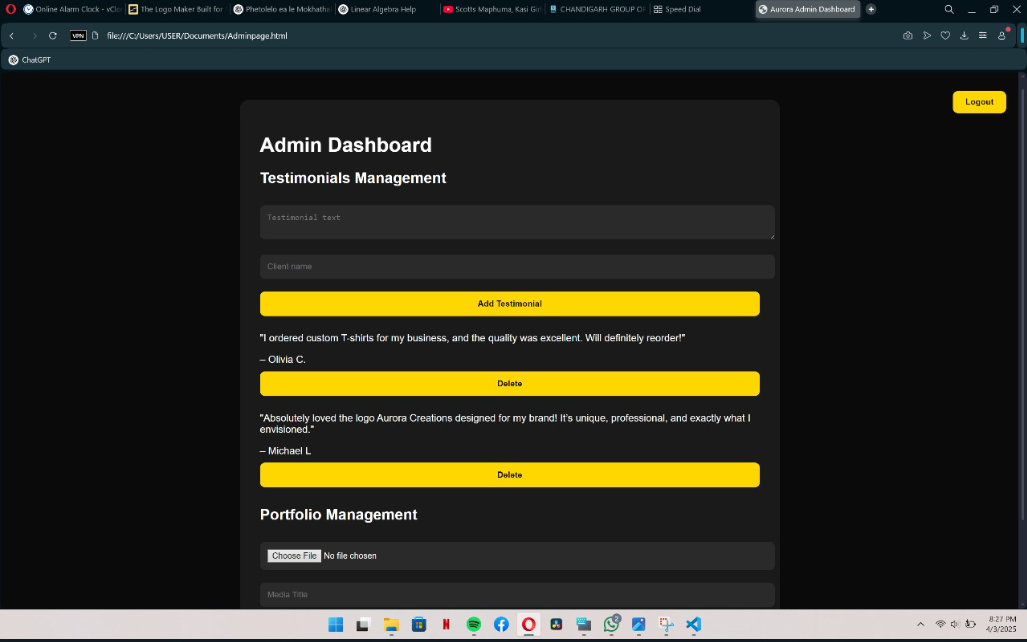
**2.Role Management**: Assign roles to users with specific permissions.



**3.Admin Panel**: Manage users, roles, and permissions.



**4.Control Panel for Admin**



* 1. **Code Snippets**

MySQLi database connection

<?php

$servername = "localhost";

$username = "root";

$password = "";

$dbname = "employee\_login\_system";

$conn = new mysqli($servername, $username, $password, $dbname);

if ($conn->connect\_error) {

die("Connection failed: " . $conn->connect\_error);

}

if(isset($\_POST['login'])) {

$username = $\_POST['username'];

$password = $\_POST['password'];

$query = "SELECT \* FROM users WHERE username='$username' AND password='$password'";

$result = $conn->query($query);

if($result->num\_rows > 0) {

$row = $result->fetch\_assoc();

$\_SESSION['username'] = $row['username'];

$\_SESSION['role'] = $row['role'];

header('Location: dashboard.php');

} else {

echo "Invalid username or password";

}

}

if(isset($\_POST['register'])) {

$username = $\_POST['username'];

$password = $\_POST['password'];

$role = $\_POST['role'];

$query = "INSERT INTO users (username, password, role) VALUES ('$username', '$password', '$role')"

$conn->query($query);

echo "User registered successfully";

if(isset($\_POST['logout'])) {

session\_unset();

session\_destroy();

header('Location: index.php');

}

$conn->close();

?>

PHP Code for Home Page

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Employee Online Login System</title>

<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">

</head>

<body>

<div class="container text-center mt-5">

<h1>Welcome to the Employee Online Login System</h1>

<p>Your gateway to secure access.</p>

<div class="row">

<div class="col-md-4">

<h2>Services</h2>

<p>Access various services provided by the company.</p>

<img src="path/to/image1.jpg" alt="Services" style="width:100%;">

</div>

<div class="col-md-4">

<h2>Admin Login</h2>

<p>Click here to login as an admin and manage user accounts.</p>

<img src="path/to/image2.jpg" alt="Admin Login" style="width:100%;">

</div>

<div class="col-md-4">

<h2>Contact Us</h2>

<p>Get in touch with us for any queries.</p>

<img src="path/to/image3.jpg" alt="Contact Us" style="width:100%;">

</div>

</div>

<h2>Testimonials</h2>

<p>See what our users say about the system.</p>

<img src="path/to/image4.jpg" alt="Testimonials" style="width:100%;">

</div>

<script src="https://code.jquery.com/jquery-3.5.1.slim.min.js"></script>

<script src="https://cdn.jsdelivr.net/npm/@popperjs/core@2.9.2/dist/umd/popper.min.js"></script>

<script src="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js"></script>

</body>

</html>

2**. PHP code for user authentication**

<?php

session\_start();

if(isset($\_POST['login'])) {

$username = $\_POST['username'];

$password = $\_POST['password'];

$query = "SELECT \* FROM users WHERE username='$username' AND password='$password'";

$result = mysqli\_query($conn, $query);

if(mysqli\_num\_rows($result) > 0) {

header('Location: dashboard.php');

} else {

echo 'Invalid username or password';

}

}

?>

CREATE TABLE users (

id INT PRIMARY KEY,

username VARCHAR(255),

password VARCHAR(255),

role VARCHAR(255)

);

CREATE TABLE roles (

id INT PRIMARY KEY,

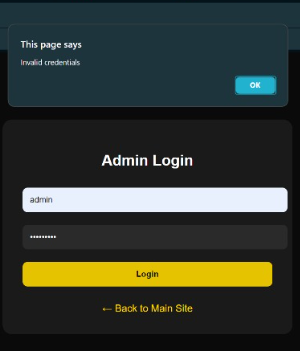
role\_name VARCHAR(255),

permissions VARCHAR(255)

);

**6. Testing**

**Test Cases**: For user login



**7. Challenges & Solutions**

* **Database Connection Issues**: Resolved by using MySQLi.
* **Session Management Problems**: Fixed with proper session handling in PHP.

**8. Conclusion & Future Enhancements**

* **Summary**: The system successfully manages employee access and improves security.
* **Future Scope**: Implement two-factor authentication, add activity logging features.

**9. References**

* 1. PHP Documentation
* 2. MySQL Documentation
* 3. W3Schools PHP Tutorial
* 4. Apache Server Documentation
* 5. Xampp Server Documentation
* 6. HTML5 Documentation
* 7. CSS3 Documentation
* 8. JavaScript Documentation
* 9. jQuery Library Documentation