Student Management System - Project Report

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Abstract

The Student Management System is a web-based application designed to manage and organize student information, homework assignments, and academic data efficiently. The system offers separate modules for students, teachers, and admin, providing them with appropriate access and tools. It aims to digitize student-related tasks to improve transparency, accuracy, and accessibility.

Objective of the Project

To develop a centralized system where student data, homework, attendance, and academic details can be
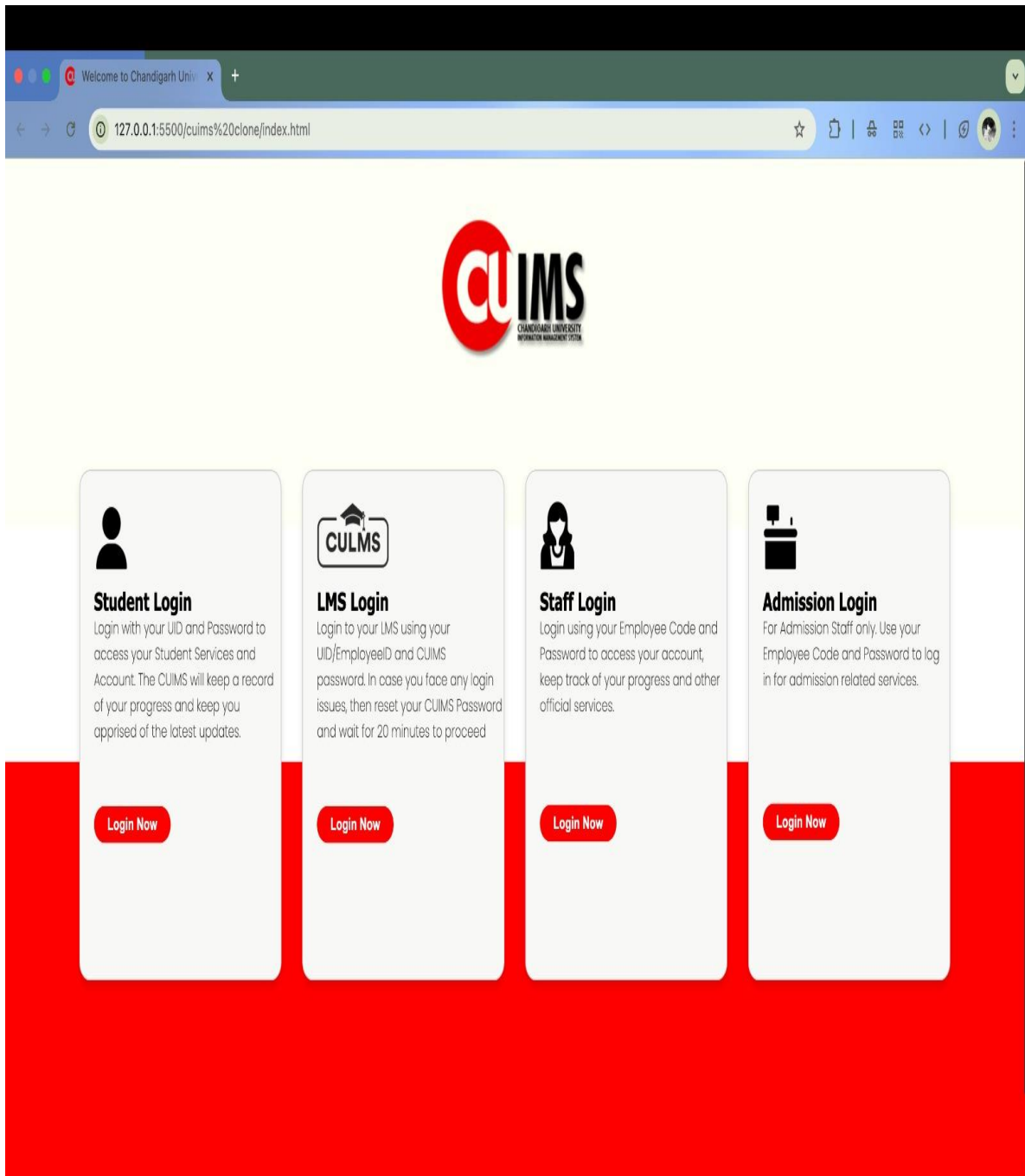
managed efficiently. The objective is to reduce paperwork and manual work through a responsive and interactive platform.

Technologies Used

- Frontend: HTML, CSS, TAILWIND

- Backend: PHP

- Database: MySQL

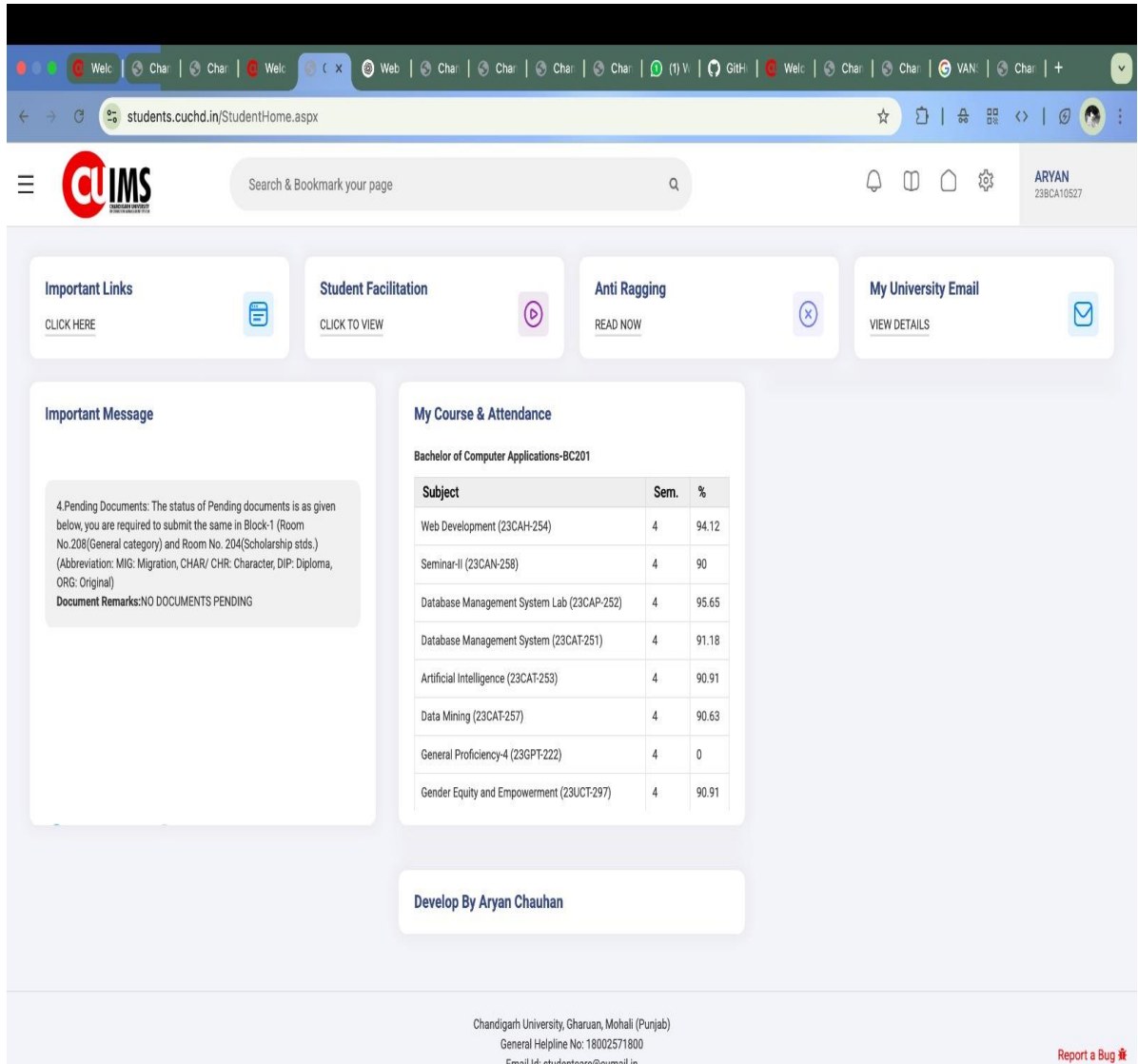- Server: Apache (XAMPP)

Screenshots with Descriptions

Home Page

The Home Page is the entry point of the Student Management System. It includes navigation to modules

like Dashboard, Add Student, Homework, etc. A clean UI ensures a user-friendly experience.

Dashboard

The Dashboard provides a summary of total students, homework assigned, and quick links for managing the system efficiently.

Add Student Page

This page allows admin to add student records including name, email, contact, class, and DOB. Data is validated and stored in the database.

Add Homework Page

Teachers can use this page to assign homework by specifying subject, title, description, and due date.

Login Page
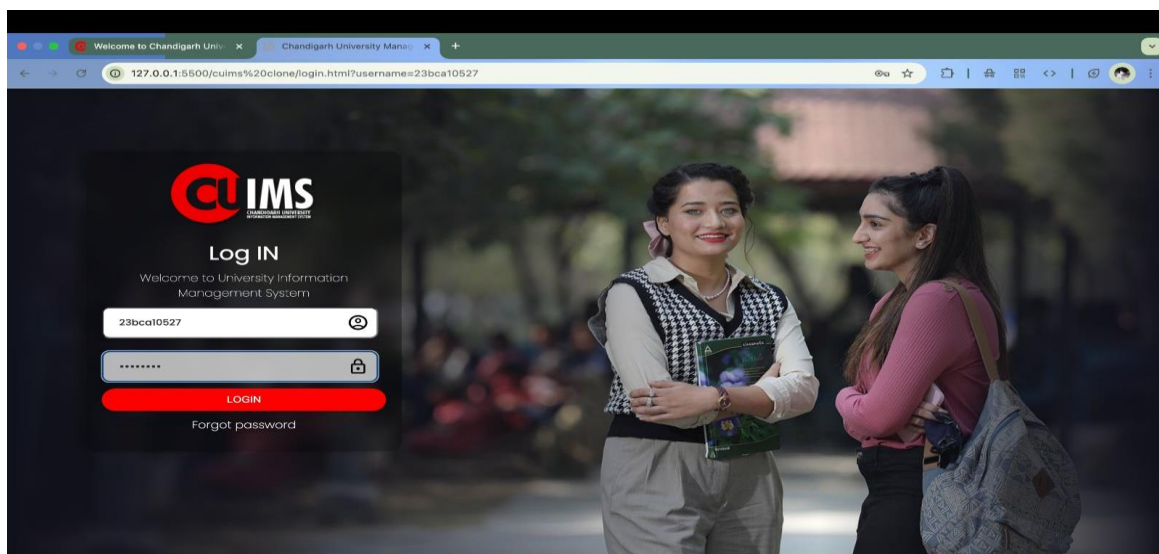
Login screen for users (Admin, Teachers, Students) with validation and redirection to the dashboard upon successful authentication.

5. Code Implementation (PHP + SQL)

This section provides examples of how the Student Management System is implemented using PHP and MySQL.

5.1 SQL Code (Database + Tables)

```sql
-- Create the Database
CREATE DATABASE student_management;

-- Use the database
USE student_management;

-- Table: Students
CREATE TABLE students (
    student_id INT AUTO_INCREMENT PRIMARY KEY,
    name VARCHAR(100),
    email VARCHAR(100),
    phone VARCHAR(15),
    address TEXT,
    class VARCHAR(50)
);

-- Table: Teachers
CREATE TABLE teachers (
    teacher_id INT AUTO_INCREMENT PRIMARY KEY,
    name VARCHAR(100),
    subject VARCHAR(100),
    email VARCHAR(100)
);
```

```sql
-- Table: Homework
CREATE TABLE homework (
    homework_id INT AUTO_INCREMENT PRIMARY KEY,
    title VARCHAR(100),
    description TEXT,
    due_date DATE,
    assigned_by INT,
    FOREIGN KEY (assigned_by) REFERENCES teachers(teacher_id)
);

-- Table: Users (Login System)
CREATE TABLE users (
    user_id INT AUTO_INCREMENT PRIMARY KEY,
    username VARCHAR(50) UNIQUE,
    password VARCHAR(255),
    role ENUM('admin', 'teacher', 'student')
);
```

5.2 login.php

```php
<?php
session_start();
include("db_connection.php");

if ($_SERVER["REQUEST_METHOD"] == "POST") {
    $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) == 1) {
        $_SESSION["username"] = $username;
        header("Location: dashboard.php");
    } else {
        echo "Invalid login!";
    }
}
?>
```

5.3 add_student.php

```php
<?php
include("db_connection.php");

if ($_SERVER["REQUEST_METHOD"] == "POST") {
    $name = $_POST["name"];
    $email = $_POST["email"];
    $phone = $_POST["phone"];
    $address = $_POST["address"];
    $class = $_POST["class"];

    $sql = "INSERT INTO students (name, email, phone, address, class)
            VALUES ('$name', '$email', '$phone', '$address', '$class')";

    if (mysqli_query($conn, $sql)) {
        echo "Student added successfully!";
    } else {
        echo "Error: " . mysqli_error($conn);
    }
}
?>
```

5.4 db_connection.php

```php
<?php
$servername = "localhost";
$username = "root";
$password = "";
$dbname = "student_management";

$conn = mysqli_connect($servername, $username, $password, $dbname);

if (!$conn) {
    die("Connection failed: " . mysqli_connect_error());
}
?>
```

6. Conclusion

This project demonstrates the practical application of PHP and MySQL in developing a functional Student Management System. It helps manage student data, assign homework, and provide a clean interface for teachers and students to interact with the system.Conclusion