

CLASS SCHEDULING SYSTEM

A Mini Project Report

Submitted by

Asma Fathima

23CDR016

Atshaya K V

23CDR017

22CDT41 - DATABASE MANAGEMENT SYSTEMS



DEPARTMENT OF COMPUTER SCIENCE AND DESIGN

KONGU ENGINEERING COLLEGE

(Autonomous)

PERUNDURAI ERODE-638060

MAY 2025

Problem Statement:

Class Scheduling System (Small Scale): Manages the schedule of classes, instructors, and students. (RDBMS: Courses, Instructors, Schedules, Enrollments; Backend: Schedule display, enrollment management).

Github Link:

<https://github.com/ATSHAYAKV/class>

<https://github.com/Asma-Fathima-M/class>

Modules and Description:

1.Admin Login Module

Allows the admin to securely log in to the system to manage classes, teachers, subjects, and schedules. Only authenticated admins can access the system.

2.Class Management Module

Enables the admin to add, edit, delete class records. Ensures class names are unique and prevents duplicates while adding or updating.

3.Teacher Management Module

Allows the admin to add, edit, delete teacher records. Manages the list of teachers who can be assigned to subjects and schedules.

4.Subject Management Module

Admin can add, edit, and delete subjects. Manages subjects that can be scheduled for various classes.

5.Schedule Management & Conflict Handling

Manage, edit, delete schedules with conflict checking to prevent overlapping for the same class, day, and period.

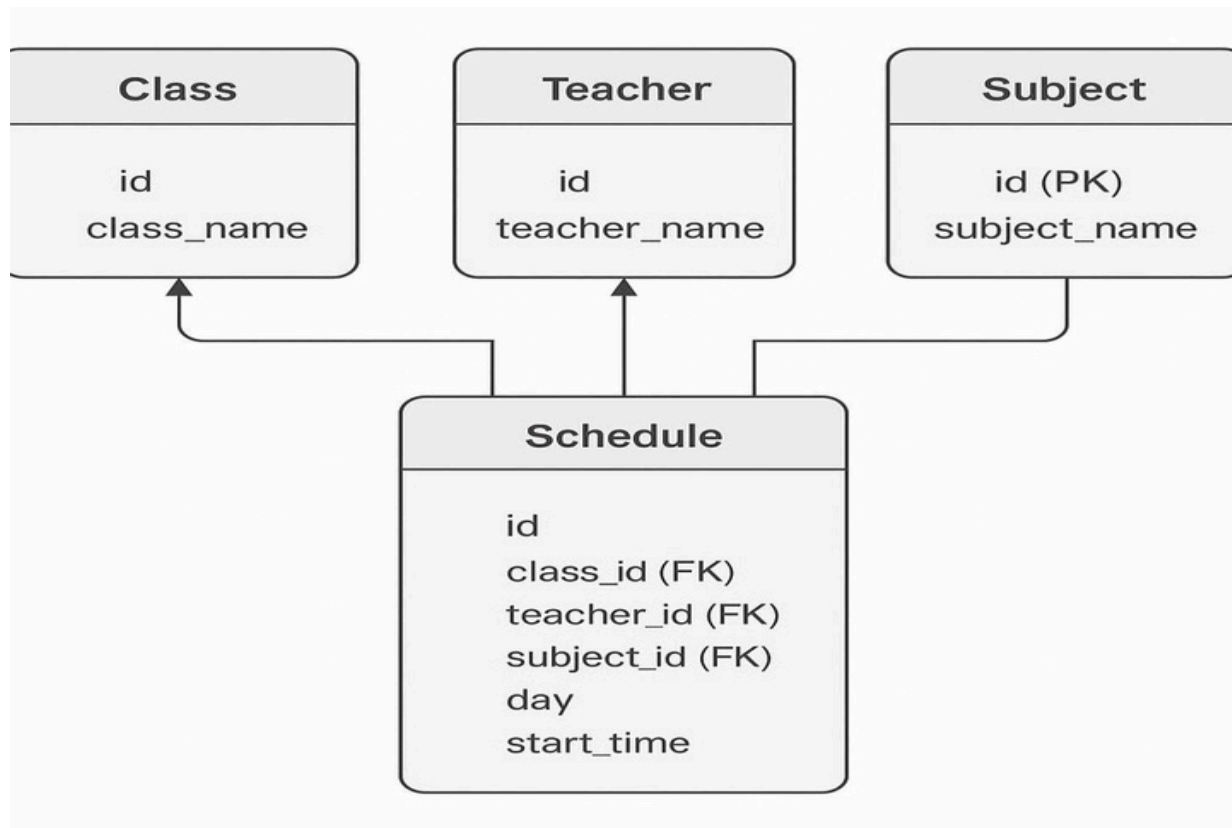
6.Alerts & Validation

Shows success/error alerts and ensures validation of forms, preventing duplicate classes or invalid data.

7. Reporting & Export

Generate and export schedules in PDF/Excel for easy distribution to students and teachers.

ER Diagram:



Programming Tools:

1. Frontend (User Interface)

These tools are used to create and design the visible interface for admin, teachers, and students:

- **HTML (HyperText Markup Language):**

Builds the structure of web pages for login, class, subject, schedule creation, and schedule viewing.

- **CSS (Cascading Style Sheets):**

Styles the web pages, improves UI/UX by adding colors, spacing, table designs, and layouts.

- **JavaScript (Basic):**

Handles client-side form validations (like checking empty fields) and simple interactivity (alerts, confirmations).

- **Bootstrap (CSS Framework):**

Used to create responsive and visually appealing UI components like forms, tables, buttons, and alerts.

2.Backend (Server-side Logic)

Handles the application logic, processes data, and interacts with the database:

- **PHP:**

Core programming language to handle form submissions, CRUD operations (Create, Read, Update, Delete) for classes, subjects, teachers, schedules, and validations.

- **MySQLi (PHP-MySQL Connector):**

Connects PHP code to the MySQL database, allowing the application to perform database operations

3.Database (Data Storage)

These tools store and manage data like class , teacher, subject and Schedule:

- **MySQL:**

Relational database used to store classes, subjects, teachers, schedules, users, and prevent duplicates or conflicts.

4.Visual Studio Code (VS Code)

A popular code editor for writing and managing PHP, HTML, CSS, and JavaScript files, supports syntax highlighting and debugging.

5. Command Line / XAMPP Control Panel:

- **XAMPP (Apache, MySQL, PHP, Perl):**

Used to run the PHP server and MySQL locally to test the project in the browser.

- **Command Prompt / Terminal (optional):**

Used to navigate directories, run server commands, or database-related commands if needed.

6. Web Browser (Google Chrome, Edge, etc.)

Used to view and test the web pages (e.g., class creation, schedule views, conflict alerts).

Database Design:

 classes Table:

Column	Type	Constraints
id	INT	AUTO_INCREMENT, PRIMARY KEY
class_name	VARCHAR(100)	UNIQUE, NOT NULL

 subjects Table:

Column	Type	Constraints
id	INT	AUTO_INCREMENT, PRIMARY KEY
subject_name	VARCHAR(100)	UNIQUE, NOT NULL

 teachers Table:

Column	Type	Constraints
id	INT	AUTO_INCREMENT, PRIMARY KEY
teacher_name	VARCHAR(100)	UNIQUE, NOT NULL



schedule Table:

Column	Type	Constraints
id	INT	AUTO_INCREMENT, PRIMARY KEY
class_id	INT	FOREIGN KEY (classes.id), NOT NULL
teacher_id	INT	FOREIGN KEY (teachers.id), NOT NULL
subject_id	INT	FOREIGN KEY (subjects.id), NOT NULL
day	VARCHAR(20)	NOT NULL
start_time	TIME	NOT NULL
end_time	TIME	NOT NULL

SQL Query:

i. Class table

```
CREATE TABLE classes (  
    id INT AUTO_INCREMENT PRIMARY KEY,  
    class_name VARCHAR(100)  
);
```

ii. Teachers table

```
CREATE TABLE teachers (  
    id INT AUTO_INCREMENT PRIMARY KEY,  
    teacher_name VARCHAR(100)  
);
```

iii. Subject Table

```
CREATE TABLE subjects (  
    id INT AUTO_INCREMENT PRIMARY KEY,  
    subject_name VARCHAR(100)  
);
```

iv. Schedule Table

```
CREATE TABLE schedule (  
    id INT AUTO_INCREMENT PRIMARY KEY,  
    class_id INT,  
    subject_id INT,  
    teacher_id INT,  
    day VARCHAR(20),  
    start_time TIME,  
    end_time TIME,  
    FOREIGN KEY (class_id) REFERENCES classes(id),  
    FOREIGN KEY (subject_id) REFERENCES subjects(id),  
    FOREIGN KEY (teacher_id) REFERENCES teachers(id)  
);
```

Coding:

db.php:

```
<?php  
// db.php  
$servername = "localhost";  
$username = "root";  
$password = "";  
$dbname = "class_schedule_system";  
  
// Create connection  
$conn = new mysqli($servername, $username, $password, $dbname);  
  
// Check connection  
if ($conn->connect_error) {  
    die("Connection failed: " . $conn->connect_error);  
}  
?>
```

- class_schedule_system\db.php

add_class.php:

```
<?php  
// add_class.php  
include 'db.php';  
  
if (isset($_POST['submit'])) {  
    $class_name = $_POST['class_name'];  
    // Check if the class name already exists in the database  
    $result = $conn->query("SELECT * FROM classes WHERE class_name = '$class_name'");  
    // If the class name exists, show an error message and prevent insertion  
    if ($result->num_rows > 0) {  
        $error_message = "Class name already exists. Please choose a different name.";  
    } else {  
        // Insert the class name if it doesn't exist
```

```

$conn->query("INSERT INTO classes (class_name) VALUES ('$class_name')");
    header("Location: index.php"); // Redirect to the homepage
    exit;
}
}
?>

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Add Class</title>
    <!-- Bootstrap CSS -->
    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css" rel="stylesheet">
    <style>
        body {
            background: #f0f4f8;
        }
        .card {
            max-width: 500px;
            margin: 100px auto;
            padding: 30px;
            border-radius: 10px;
            box-shadow: 0 8px 16px rgba(0, 0, 0, 0.1);
        }
        h1 {
            font-weight: 700;
            color: #343a40;
        }
        .alert {
            margin-bottom: 20px;
        }
    </style>
</head>
<body>

    <div class="container">
        <div class="card">
            <h1 class="text-center mb-4">Add Class</h1>

            <!-- Show error message if class name already exists -->
            <?php if (isset($error_message)): ?>
                <div class="alert alert-danger">
                    <?= $error_message ?>
                </div>
            <?php endif; ?>

            <form method="POST">
                <div class="mb-3">
                    <label for="class_name" class="form-label">Class Name</label>
                    <input type="text" name="class_name" id="class_name" class="form-control" placeholder="Enter Class Name" required>
                </div>
                <button type="submit" name="submit" class="btn btn-primary w-100">Add Class</button>
            </form>
            <a href="index.php" class="btn btn-secondary mt-3 w-100">Back to Home</a>
        </div>
    </div>

```



```

<!-- Bootstrap JS -->
<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/js/bootstrap.bundle.min.js"></script>
</body>
</html>
class_schedule_system\add_class.php
-
add_teacher.php:
<?php
// add_teacher.php
include 'db.php';

if (isset($_POST['submit'])) {
    $teacher_name = $_POST['teacher_name'];
    $conn->query("INSERT INTO teachers (teacher_name) VALUES ('$teacher_name')");
    header("Location: index.php");
}
?>

<!DOCTYPE html>
<html lang="en">
<head>

<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Add Teacher</title>
<!-- Bootstrap CSS -->
<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css" rel="stylesheet">
<style>
    body {
        background: #f0f4f8;
    }
    .card {
        max-width: 500px;
        margin: 100px auto;
        padding: 30px;
        border-radius: 10px;
        box-shadow: 0 8px 16px rgba(0, 0, 0, 0.1);
    }
    h1 {
        font-weight: 700;
        color: #343a40;
    }
</style>
</head>
<body>

<div class="container">
    <div class="card">
        <h1 class="text-center mb-4">Add Teacher</h1>
        <form method="POST">
            <div class="mb-3">
                <label for="teacher_name" class="form-label">Teacher Name</label>
                <input type="text" name="teacher_name" id="teacher_name" class="form-control" placeholder="Enter Teacher Name" required>
            </div>
            <button type="submit" name="submit" class="btn btn-primary w-100">Add Teacher</button>
        </form>
        <a href="index.php" class="btn btn-secondary mt-3 w-100">Back to Home</a>
    </div>
</div>

```

```

<!-- Bootstrap JS -->
<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/js/bootstrap.bundle.min.js"></script>
</body>
</html>
- \class_schedule_system\add_teacher.php

```

add_subject.php:

```

<?php
// add_subject.php
include 'db.php';

if (isset($_POST['submit'])) {
    $subject_name = $_POST['subject_name'];
    $conn->query("INSERT INTO subjects (subject_name) VALUES ('$subject_name')");
    header("Location: index.php");
}
?>

<!DOCTYPE html>
<html lang="en">
<head>

    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Add Subject</title>
    <!-- Bootstrap CSS -->
    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css" rel="stylesheet">
    <style>
        body {
            background: #f0f4f8;
        }
        .card {
            max-width: 500px;
            margin: 100px auto;
            padding: 30px;
            border-radius: 10px;
            box-shadow: 0 8px 16px rgba(0, 0, 0, 0.1);
        }
        h1 {
            font-weight: 700;
            color: #343a40;
        }
    </style>
</head>
<body>

    <div class="container">
        <div class="card">
            <h1 class="text-center mb-4">Add Subject</h1>
            <form method="POST">
                <div class="mb-3">
                    <label for="subject_name" class="form-label">Subject Name</label>
                    <input type="text" name="subject_name" id="subject_name" class="form-control" placeholder="Enter Subject Name" required>
                </div>
                <button type="submit" name="submit" class="btn btn-primary w-100">Add Subject</button>
            </form>
            <a href="index.php" class="btn btn-secondary mt-3 w-100">Back to Home</a>
        </div>
    </div>

```

```

<!-- Bootstrap JS -->
<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/js/bootstrap.bundle.min.js"></script>
</body>
</html>
- \class_schedule_system\add_subject.php

```

create_schedule.php:

```

<?php
// create_schedule.php
include 'db.php';

if (isset($_POST['submit'])) {
    $class_id = $_POST['class_id'];
    $teacher_id = $_POST['teacher_id'];
    $subject_id = $_POST['subject_id'];
    $day = $_POST['day'];
    $start_time = $_POST['start_time'];
    $end_time = $_POST['end_time'];

    // Check for schedule conflict: no same class, teacher, subject, and day with overlapping periods
    $query = "
        SELECT * FROM schedule
        WHERE class_id = '$class_id' AND day = '$day'
        AND ((start_time < '$end_time' AND end_time > '$start_time') OR start_time = '$start_time' OR end_time =
'$end_time')
    ";

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

    if ($result->num_rows > 0) {
        // There is a schedule conflict
        echo "<script>alert('Schedule conflict: The selected time overlaps with an existing schedule for this class.');

```

```

<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css" rel="stylesheet">
<style>
  body {
    background: #f0f4f8;
  }
  .card {
    max-width: 600px;
    margin: 100px auto;
    padding: 30px;
    border-radius: 10px;
    box-shadow: 0 8px 16px rgba(0, 0, 0, 0.1);
  }
  h1 {
    font-weight: 700;
    color: #343a40;
  }
</style>
</head>
<body>

```

```

  <div class="container">
    <div class="card">
      <h1 class="text-center mb-4">Create Schedule</h1>
      <form method="POST">
        <div class="mb-3">
          <label for="class_id" class="form-label">Select Class</label>
          <select name="class_id" id="class_id" class="form-select" required>
            <?php while ($row = $classes->fetch_assoc()): ?>
              <option value="<?=$row['id'] ?>"><?=$row['class_name'] ?></option>
            <?php endwhile; ?>
          </select>
        </div>
        <div class="mb-3">
          <label for="teacher_id" class="form-label">Select Teacher</label>
          <select name="teacher_id" id="teacher_id" class="form-select" required>
            <?php while ($row = $teachers->fetch_assoc()): ?>
              <option value="<?=$row['id'] ?>"><?=$row['teacher_name'] ?></option>
            <?php endwhile; ?>
          </select>
        </div>
        <div class="mb-3">
          <label for="subject_id" class="form-label">Select Subject</label>
          <select name="subject_id" id="subject_id" class="form-select" required>
            <?php while ($row = $subjects->fetch_assoc()): ?>
              <option value="<?=$row['id'] ?>"><?=$row['subject_name'] ?></option>
            <?php endwhile; ?>
          </select>
        </div>
        <div class="mb-3">
          <label for="day" class="form-label">Day</label>
          <input type="text" name="day" id="day" class="form-control" placeholder="Enter Day (e.g., Monday)"
required>
        </div>
        <div class="mb-3">
          <label for="start_time" class="form-label">Start Time</label>
          <input type="time" name="start_time" id="start_time" class="form-control" required>
        </div>

```

```

        <div class="mb-3">
            <label for="end_time" class="form-label">End Time</label>
            <input type="time" name="end_time" id="end_time" class="form-control" required>
        </div>

        <button type="submit" name="submit" class="btn btn-primary w-100">Create Schedule</button>

    </form>
    <a href="view_schedule.php" class="btn btn-secondary mt-3 w-100">View Schedule</a>
</div>
</div>

```

```

<!-- Bootstrap JS -->

```

```

<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/js/bootstrap.bundle.min.js"></script>

```

```

</body>

```

```

</html>

```

- C:\xampp\htdocs\class_schedule_system\create_schedule.php ,

view_schedule.php:

```

<?php

```

```

// view_schedule.php

```

```

include 'db.php';

```

```

// Fetch the schedule from the database along with class, teacher, and subject information

```

```

$sql = "SELECT schedule.id, schedule.day, schedule.start_time, schedule.end_time,
        classes.class_name, teachers.teacher_name, subjects.subject_name

```

```

        FROM schedule

```

```

        JOIN classes ON schedule.class_id = classes.id

```

```

        JOIN teachers ON schedule.teacher_id = teachers.id

```

```

        JOIN subjects ON schedule.subject_id = subjects.id

```

```

        ORDER BY schedule.day, schedule.start_time";

```

```

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

```

```

?>

```

```

<!DOCTYPE html>

```

```

<html lang="en">

```

```

<head>

```

```

    <meta charset="UTF-8">

```

```

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

```

```

    <title>View Schedule</title>

```

```

    <!-- Bootstrap CSS -->

```

```

    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css" rel="stylesheet">

```

```

    <style>

```

```

        body {

```

```

            background: #f0f4f8;

```

```

        }

```

```

        .card {

```

```

            margin: 50px auto;

```

```

            padding: 30px;

```

```

            border-radius: 10px;

```

```

            box-shadow: 0 8px 16px rgba(0, 0, 0, 0.1);

```

```

            max-width: 1000px;

```

```

        }

```

```

        h1 {

```

```

            font-weight: 700;

```

```

            color: #343a40;

```

```

        }

```

```

.table thead {
    background-color: #007bff;
    color: white;
}
.table th, .table td {
    text-align: center;
}
.btn {
    width: 100%;
    margin-top: 20px;
}
</style>
</head>
<body>

<div class="container">
    <div class="card">
        <h1 class="text-center mb-4">View Schedule</h1>
        <?php if ($result->num_rows > 0): ?>
            <table class="table table-bordered">
                <thead>
                    <tr>
                        <th>#</th>
                        <th>Class</th>
                        <th>Subject</th>
                        <th>Teacher</th>
                        <th>Day</th>
                        <th>Start Time</th>
                        <th>End Time</th>
                        <th>Actions</th>
                    </tr>
                </thead>
                <tbody>
                    <?php $count = 1; ?>
                    <?php while ($row = $result->fetch_assoc()): ?>
                        <tr>
                            <td><?= $count++; ?></td>
                            <td><?= $row['class_name']; ?></td>
                            <td><?= $row['subject_name']; ?></td>
                            <td><?= $row['teacher_name']; ?></td>
                            <td><?= $row['day']; ?></td>
                            <td><?= $row['start_time']; ?></td>
                            <td><?= $row['end_time']; ?></td>
                            <td>
                                <!-- Edit Button -->
                                <a href="edit_schedule.php?id=<?= $row['id']; ?>" class="btn btn-warning btn-sm">Edit</a>
                                <!-- Delete Button -->
                                <a href="delete_schedule.php?id=<?= $row['id']; ?>" class="btn btn-danger btn-sm"
                                onclick="return confirm('Are you sure you want to delete this schedule?')">Delete</a>
                            </td>
                        </tr>
                    <?php endwhile; ?>
                </tbody>
            </table>
            <?php else: ?>
                <p class="text-center">No schedule found.</p>
            <?php endif; ?>
            <a href="index.php" class="btn btn-secondary">Back to Home</a>
        </div>
    </div>

```

```
<!-- Bootstrap JS -->
<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/js/bootstrap.bundle.min.js"></script>
</body>
</html>
- view_schedule.php
```

edit_schedule.php

```
<?php
// edit_schedule.php
include 'db.php';

if (isset($_GET['id'])) {
    $id = $_GET['id'];
    // Fetch schedule details by id
    $sql = "SELECT * FROM schedule WHERE id = $id";
    $result = $conn->query($sql);
    $schedule = $result->fetch_assoc();

    if (isset($_POST['submit'])) {

        // Get updated values from the form
        $class_id = $_POST['class_id'];
        $teacher_id = $_POST['teacher_id'];
        $subject_id = $_POST['subject_id'];
        $day = $_POST['day'];
        $start_time = $_POST['start_time'];
        $end_time = $_POST['end_time'];
        // Update schedule in the database
        $conn->query("UPDATE schedule

                        SET class_id = '$class_id', teacher_id = '$teacher_id', subject_id = '$subject_id', day = '$day', start_time
= '$start_time', end_time = '$end_time'
                        WHERE id = $id");

        // Redirect back to view_schedule.php after updating
        header("Location: view_schedule.php");
        exit;
    }
}

// Fetch classes, teachers, and subjects for the form
$classes = $conn->query("SELECT * FROM classes");
$teachers = $conn->query("SELECT * FROM teachers");
$subjects = $conn->query("SELECT * FROM subjects");
?>

<!DOCTYPE html>
<html lang="en">
<head>

    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Edit Schedule</title>
    <!-- Bootstrap CSS -->
    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css" rel="stylesheet">
</head>
<body>
```

```

<div class="container">
  <div class="card" style="max-width: 600px; margin-top: 50px;">
    <h1 class="text-center mb-4">Edit Schedule</h1>
    <form method="POST">
      <div class="mb-3">
        <label for="class_id" class="form-label">Select Class</label>
        <select name="class_id" id="class_id" class="form-select" required>
          <?php while ($row = $classes->fetch_assoc()): ?>
            <option value="<?=$row['id']; ?>" <?=$schedule['class_id'] == $row['id'] ? 'selected' : ''; ?>><?=$row['class_name']; ?></option>
          <?php endwhile; ?>
        </select>
      </div>

      <div class="mb-3">
        <label for="teacher_id" class="form-label">Select Teacher</label>
        <select name="teacher_id" id="teacher_id" class="form-select" required>
          <?php while ($row = $teachers->fetch_assoc()): ?>
            <option value="<?=$row['id']; ?>" <?=$schedule['teacher_id'] == $row['id'] ? 'selected' : ''; ?>><?=$row['teacher_name']; ?></option>
          <?php endwhile; ?>
        </select>
      </div>

      <div class="mb-3">
        <label for="subject_id" class="form-label">Select Subject</label>
        <select name="subject_id" id="subject_id" class="form-select" required>
          <?php while ($row = $subjects->fetch_assoc()): ?>
            <option value="<?=$row['id']; ?>" <?=$schedule['subject_id'] == $row['id'] ? 'selected' : ''; ?>><?=$row['subject_name']; ?></option>
          <?php endwhile; ?>
        </select>
      </div>

      <div class="mb-3">
        <label for="day" class="form-label">Day</label>
        <input type="text" name="day" id="day" class="form-control" value="<?=$schedule['day']; ?>"
required>
      </div>

      <div class="mb-3">
        <label for="start_time" class="form-label">Start Time</label>
        <input type="time" name="start_time" id="start_time" class="form-control" value="<?=$schedule['start_time']; ?>" required>
      </div>

      <div class="mb-3">
        <label for="end_time" class="form-label">End Time</label>
        <input type="time" name="end_time" id="end_time" class="form-control" value="<?=$schedule['end_time']; ?>" required>
      </div>

      <button type="submit" name="submit" class="btn btn-primary w-100">Update Schedule</button>
    </form>
  </div>
</div>

```



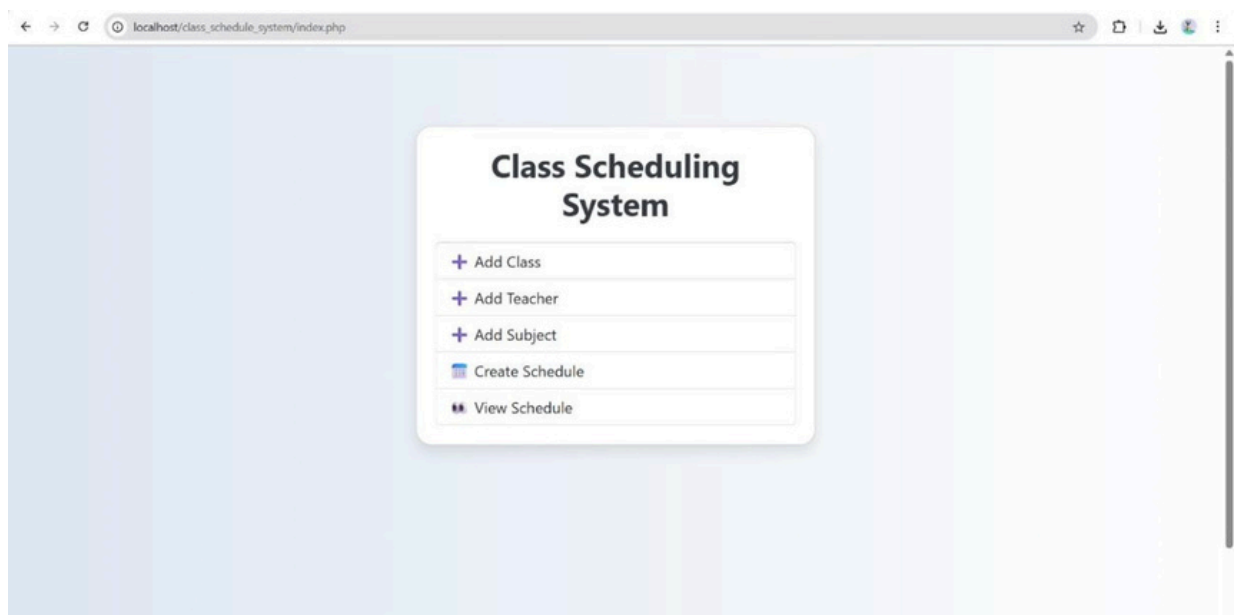
```
<!-- Bootstrap JS -->
<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/js/bootstrap.bundle.min.js"></script>
</body>
</html>
- \class_schedule_system\edit_schedule.php
```

delete_schedule.php:

```
<?php
// delete_schedule.php
include 'db.php';

if (isset($_GET['id'])) {
    $id = $_GET['id'];
    // Delete the schedule by ID
    $conn->query("DELETE FROM schedule WHERE id = $id");
    // Redirect to the view_schedule.php after deletion
    header("Location: view_schedule.php");
    exit;
}
?>
- class_schedule_system\delete_schedule.php
```

Output:



← → ↻ 📄 localhost/class_schedule_system/add_class.php ☆ 📄 📄 📄

Add Class

Class Name

[Add Class](#)[Back to Home](#)

← → ↻ 📄 localhost/class_schedule_system/add_teacher.php ☆ 📄 📄 📄

Add Teacher

Teacher Name

[Add Teacher](#)[Back to Home](#)

← → ↻ localhost/class_schedule_system/add_subject.php ☆ 📄 📥 🌐 ⋮

Add Subject

Subject Name

Add Subject

Back to Home

← → ↻ localhost/class_schedule_system/create_schedule.php ☆ 📄 📥 🌐 ⋮

Create Schedule

Select Class

Python

Select Teacher

Ananthi

Select Subject

Python

Day

Monday

Start Time

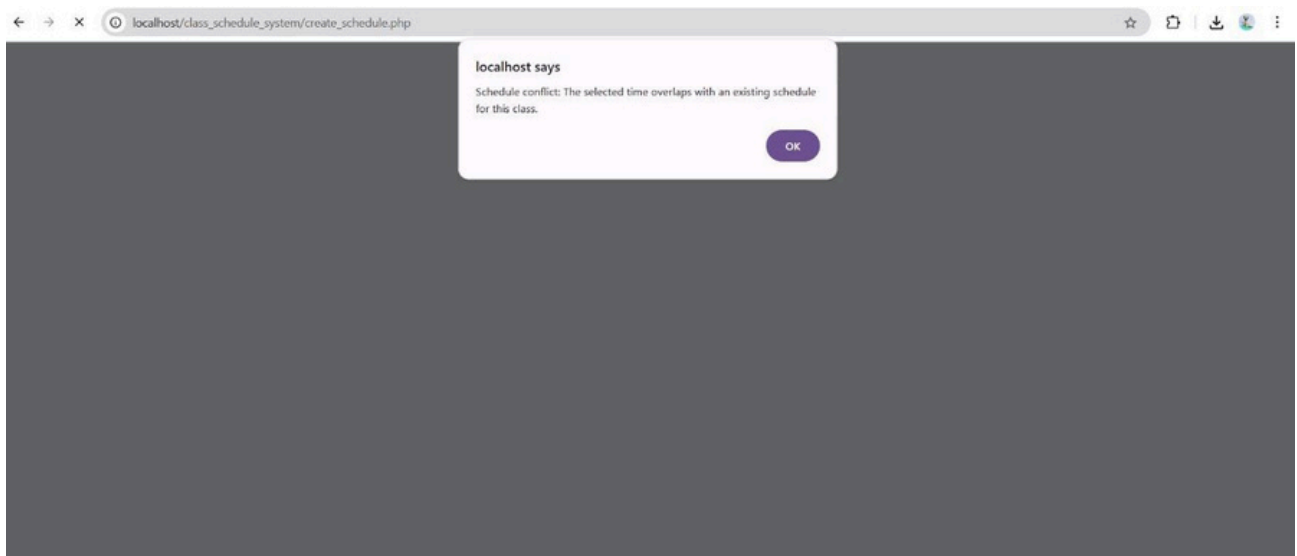
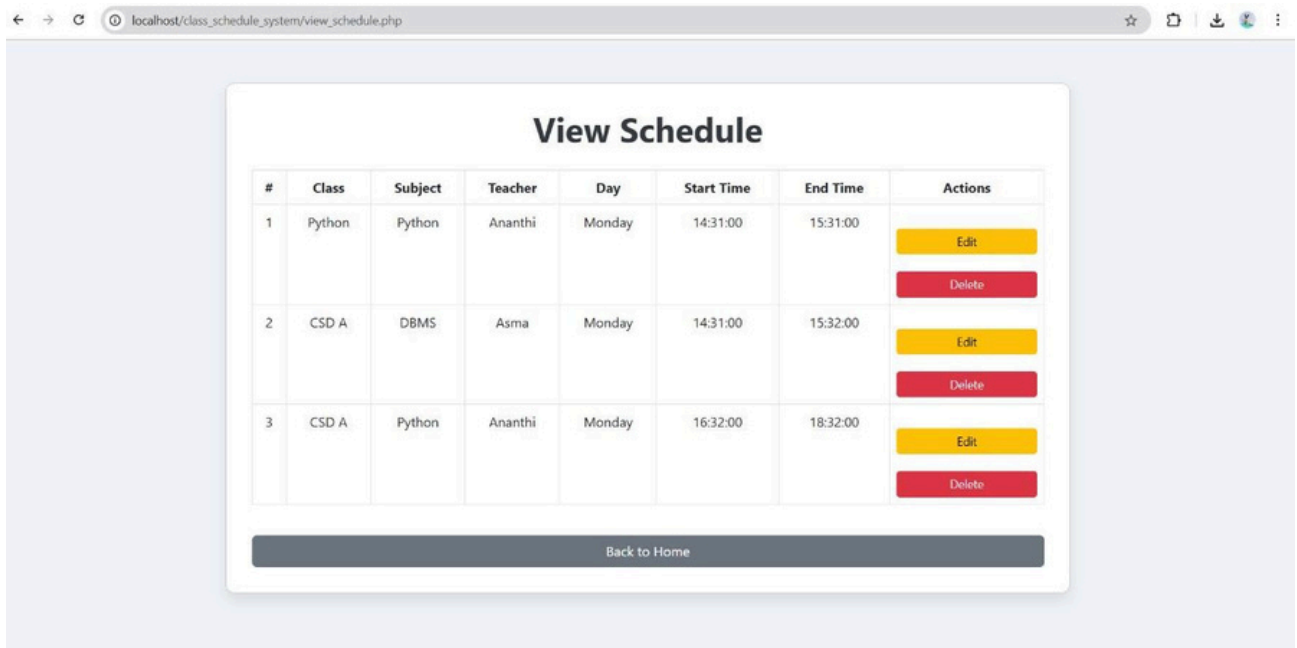
03:47 PM

End Time

05:44 PM

Create Schedule

View Schedule



Reference:

- <https://www.sourcecodester.com/php/15959/class-scheduling-system-php-and-mysql-source-code.html>
- <https://www.codeastro.com/class-scheduling-system-in-php-source-code/>
- <https://dbdesigner.net/designer/schema/409684-class-schedule-system>