Class Scheduling System

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Introduction

- ✓ A web-based system to manage class schedules.
- ✓ Allows adding classes, subjects, teachers, and scheduling them.
 - ✓ Built using PHP, MySQL, and Bootstrap.
 - ✓ Focuses on simplicity, user-friendly UI, and CRUD operations.

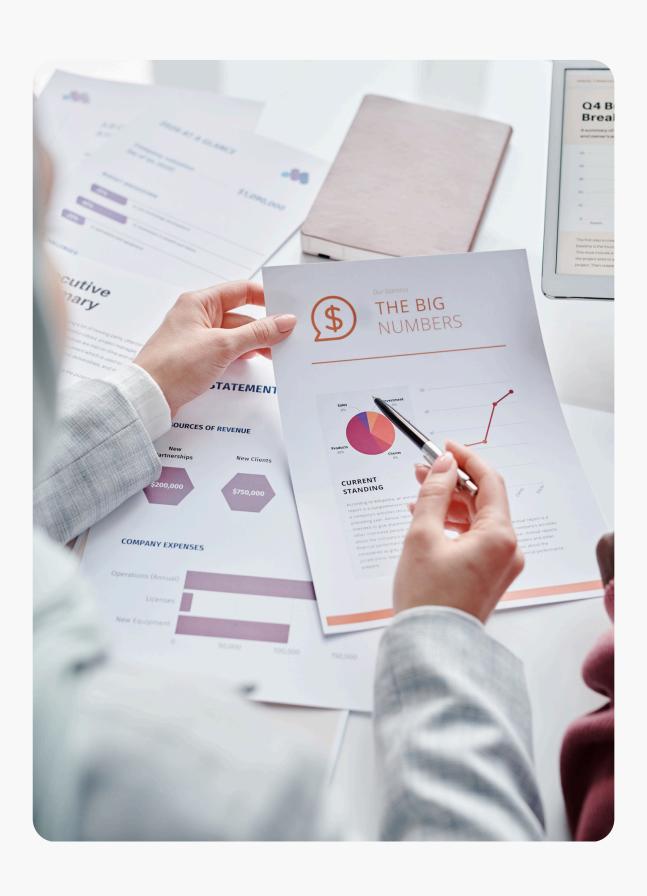
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Tools & Technologies Used

- **V** Frontend:
- - HTML
- - CSS (with Bootstrap 5)
- JavaScript (Basic for validation)
- ✓ Backend:
- - PHP (Core PHP)
- **J** Database:
- - MySQL (XAMPP Local Server)
- **V** Other Tools:
- - Visual Studio Code
- XAMPP (Apache, MySQL)
- - phpMyAdmin (for DB management)

Key Features

- ✓ Add, View, Update, Delete classes, teachers, subjects.
- Create and manage schedules.
- ✓ Schedule conflict checking (time overlaps avoided).
- ✓ User login & logout system (admin user).
- ✓ User-friendly Bootstrap-based UI.
- ✓ Simple navigation dashboard.



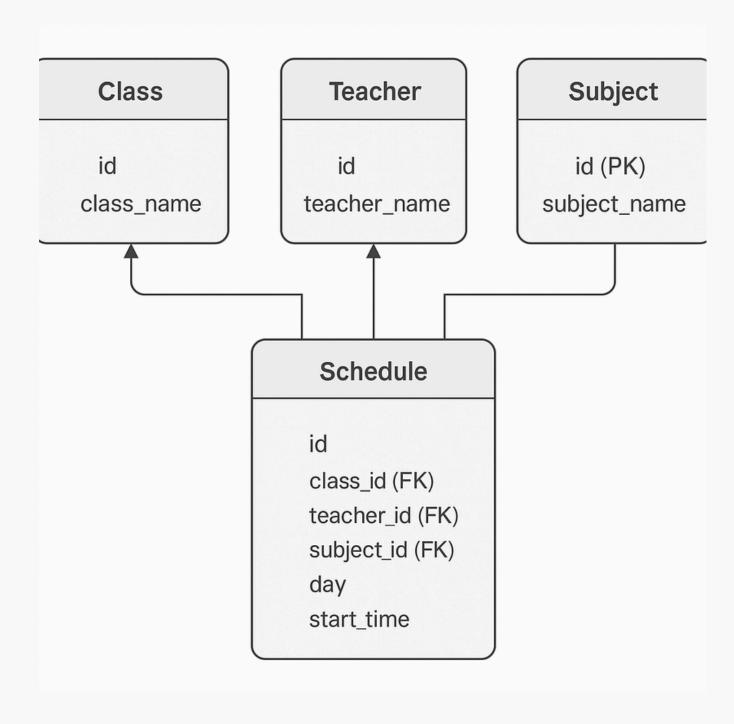
Database Schema Overview

- ✓ Tables:
 - users (id, username, password)
 - classes (id, class_name)
 - teachers (id, teacher_name)
 - subjects (id, subject_name)
- schedule (id, class_id, teacher_id, subject_id, day, start_time, end_time)
- ✓ Relationships:
 - schedule table links classes, teachers, and subjects.
 - users table for admin login.

Technology Stack

- Frontend: HTML, CSS,
 Bootstrap
- Backend: Flask (Python)
- Database: Oracle (Lightweight)
- Tools: Git, VS Code

ER Diagram



Project Flow

- ✓ User Login -> Dashboard
- Manage classes, subjects, teachers
- Create schedules (conflict check)
- ✓ View/Edit/Delete schedules
- ✓ Logout

UI Screenshots

- **V** Login Page
- **V** Dashboard Page
- Create Schedule Page
- View Schedule Page

Security Features

- ✓ Basic session-based login system.
- ✓ Prevents access to pages without login.
- ✓ Secure password checking (plain password or hashed depending on setup).
- ✓ SQL prepared statements to avoid SQL injection.

Conclusion



- ✓ Successfully implemented basic class scheduling system.
- ✓ Easy to use by admin users.
- ✓ Can be enhanced with:
 - Role-based users (Admin, Teacher)
 - Real-time notifications
 - Reports and exports
- ✓ Scalable to institution level with further improvements.



Thank you