

Project Report

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BSCS-2C

Introduction:

The system that I chose to make is the “STUDENT ATTENDANCE SYSTEM” it is as the title says an attendance system that records and saves attendance of students. This is made to not only help Educators but also students who are currently enrolled in online classes we can skip the attendance taking and just do it on this website for a faster more streamlined approach to education.

Database Design:

ER Diagram:

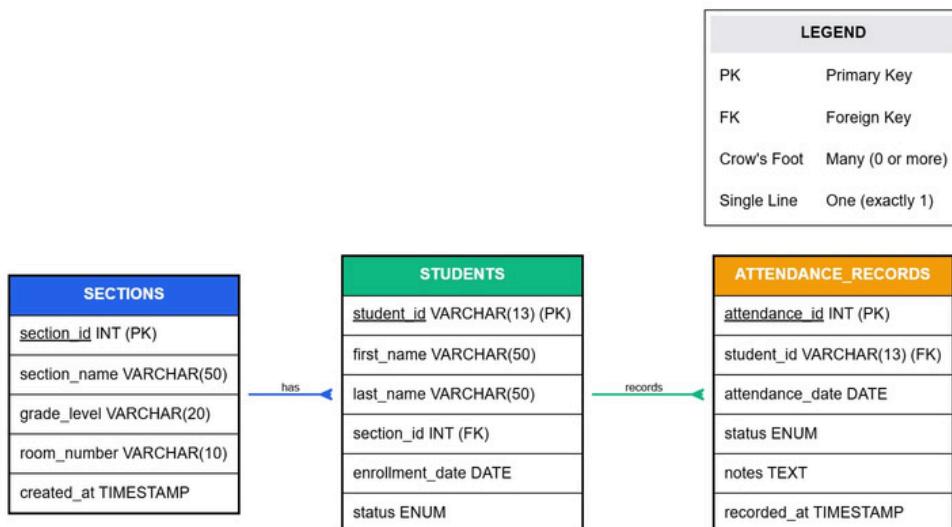


Table description and relationships:

1. Sections to Students (One-to-Many)

Relationship: One section can have multiple students enrolled in it.

Primary Key: sections.section_id.

Foreign Key: students.section_id.

Constraint: The system uses ON DELETE RESTRICT. This means you cannot delete a section if there are still students assigned to it, ensuring data integrity.

2. Students to Attendance Records (One-to-Many)

Relationship: One student can have many attendance_records over time (one for each date).

Primary Key: students.student_id.

Foreign Key: attendance_records.student_id.

Constraint: The system uses ON DELETE CASCADE. If a student is deleted from the database, all their associated attendance history is automatically deleted as well.

Unique Constraint: There is a unique key on (student_id, attendance_date). This prevents a single student from having duplicate attendance entries for the same day.

WEB Interface:

Main Interface

The screenshot shows the dashboard of the Student Attendance System. At the top, there are five summary boxes: 'Total Students' (12), 'Present Today' (0), 'Absent Today' (0), 'Late Today' (0), and 'Attendance Rate' (0.0%). Below these is a section titled 'Today's Attendance Summary' with a table showing attendance details for four sections: BSCS 2A, BSCS 2B, BSCS 2C, and BSCS 3A. The table has columns for SECTION, TOTAL STUDENTS, PRESENT, ABSENT, LATE, and NOT MARKED.

SECTION	TOTAL STUDENTS	PRESENT	ABSENT	LATE	NOT MARKED
BSCS 2A	3	0	0	0	3
BSCS 2B	3	0	0	0	3
BSCS 2C	2	0	0	0	2
BSCS 3A	2	0	0	0	2

Students List

The screenshot shows the students list page of the Student Attendance System. It features a grid of student profiles. Each profile includes the student's name, ID, section, grade level, room, and enrollment date. Below each profile are buttons for 'Mark Attendance' and 'Delete'. A search bar and a dropdown for 'All Sections' are at the top, and a 'Add Student' button is on the right.

Name	ID	Section	Grade Level	Room	Enrolled	Action
Juan Dela Cruz	12345-67-8901	BSCS 2A	2nd Year	CS-101	Jan 6, 2026	<button>✓ Mark Attendance</button> <button>Delete</button>
Maria Santos	12345-67-8902	BSCS 2A	2nd Year	CS-101	Jan 6, 2026	<button>✓ Mark Attendance</button> <button>Delete</button>
Rico Valdez	12345-67-8911	BSCS 2A	2nd Year	CS-101	Jan 6, 2026	<button>✓ Mark Attendance</button> <button>Delete</button>
Ana Garcia	12345-67-8904	BSCS 2B	2nd Year	CS-102		<button>✓ Mark Attendance</button> <button>Delete</button>
Liza Navarro	12345-67-8912	BSCS 2B	2nd Year	CS-102		<button>✓ Mark Attendance</button> <button>Delete</button>
Pedro Reyes	12345-67-8903	BSCS 2B	2nd Year	CS-102		<button>✓ Mark Attendance</button> <button>Delete</button>

Add new Student

The screenshot shows the 'Student Attendance System' interface. The main navigation bar at the top includes 'Dashboard', 'Students' (which is selected), and 'Attendance'. Below this, a list of students is displayed with columns for Name, Section, Grade Level, Room, and Enrolled date. Two students are currently listed: 'Juan Dela Cruz' and 'Ana Garcia', both marked as 'active'. A modal window titled 'Add New Student' is open in the center. It contains fields for 'Student ID *' (set to '00000-00-0000'), 'First Name *' (empty), 'Last Name *' (empty), and 'Section *' (dropdown menu set to 'Select Section'). At the bottom of the modal are 'Cancel' and 'Save Student' buttons. To the right of the modal, another student record for 'Rico Valdez' is partially visible.

Attendance list

The screenshot shows the 'Attendance' section of the 'Student Attendance System'. The top navigation bar includes 'Dashboard', 'Students', and 'Attendance'. The main content area displays a table of student attendance records. The table has columns for 'STUDENT ID', 'NAME', 'SECTION', 'STATUS', and 'ACTIONS'. The 'STATUS' column shows 'Not Marked' for all students. The 'ACTIONS' column contains three buttons: a green checkmark, a red 'X', and a yellow question mark. The students listed are 'Juan Dela Cruz', 'Maria Santos', 'Rico Valdez', 'Ana Garcia', 'Liza Navarro', 'Pedro Reyes', and 'Sofia Lopez'. At the top of the table, there are filters for '08/01/2026', a 'View Attendance' button, and two buttons for marking all present or absent.

Challenges and Learning:

This project has been very hard for me to accomplish from the start being that I came from a non computer strand in Senior Highschool and trying to implement multiple coding languages in a single project hasn't been easy as well but I have learned enough as to put my plans in to reality .