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# STUDENTS MANAGEMENT SYSTEM

C#



# Student Management System in C#

## □ Project Overview

The **Student Management System (SMS)** is a desktop application developed in **C# with .NET Framework**. It is designed to manage student data efficiently, allowing administrators and staff to **create, update, retrieve, and delete student records**, as well as track academic progress, attendance, and other key metrics

## Objectives

- . Streamline administrative tasks related to student information
- . Reduce errors from manual data entry
- . Securely store and manage academic records
- . Generate reports for quick decision-making

## Development Tools & Technologies

Tool	Purpose
C#	Core programming language
.NET Framework	Application development
SQL Server	Back-end database
Windows Forms	User Interface (UI)
Visual Studio	Integrated Development Environment (IDE)

## Database Structure

### Tables:

- Students (StudentID, Name, DOB, Gender, Email, Phone)
- Courses (CourseID, CourseName, Credits)
- Enrollments (StudentID, CourseID, Grade)
- Attendance (StudentID, Date, Status)
- Users (UserID, Username, Password, Role)

## Key Functional Code Snippet







csharp
// Example:      Adding a new student
SqlConnection con = new SqlConnection("your_connection_string");
SqlCommand cmd = new SqlCommand("INSERT INTO Students(Name, DOB, Gender, Email, Phone) VALUES(@Name, @DOB, @Gender, @Email, @Phone)", con);
cmd.Parameters.AddWithValue("@Name", nameTextBox.Text);
cmd.Parameters.AddWithValue("@DOB", dobPicker.Value);
cmd.Parameters.AddWithValue("@Gender", genderComboBox.SelectedItem.ToString());
cmd.Parameters.AddWithValue("@Email", emailTextBox.Text);
cmd.Parameters.AddWithValue("@Phone", phoneTextBox.Text);
con.Open();
cmd.ExecuteNonQuery();
con.Close();

## **Expected Outcomes**

- . Enhanced record accuracy and accessibility
- . Reduced paper-based workflow
- . Easier tracking of academic and attendance trends



## System Features

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-  Add, edit, and delete student records
-  Course enrollment and tracking
-  Attendance and timetable management
-  Grade recording and report card generation
-  User login & access control (Admin/Staff roles)
-  Exporting reports to PDF or Excel