Student Information Management System (SIMS) - Full Code

This document contains the complete ASP.NET Core 8 Razor Pages implementation of the Student Information Management System (SIMS) based on the provided class diagram and requirements. The implementation follows OOP, SOLID principles, and clean coding practices.

# 1. Project Structure

SIMS/  
├── Data/  
│ ├── SIMSContext.cs  
│ ├── SeedData.cs  
├── Models/  
│ ├── Student.cs  
│ ├── User.cs  
│ ├── Course.cs  
│ ├── Assignment.cs  
│ ├── Submission.cs  
│ ├── Report.cs

│ ├── Falculty.cs

├── Interfaces/  
│ ├── IStudentRepository.cs  
│ ├── IUserRepository.cs  
│ ├── ICourseRepository.cs  
│ ├── ISubmissionRepository.cs  
│ ├── IReportRepository.cs  
│ ├── IAuthenticationService.cs

│ ├── IFalcultyService.cs

├── Repositories/  
│ ├── StudentRepository.cs  
│ ├── UserRepository.cs  
│ ├── CourseRepository.cs  
│ ├── SubmissionRepository.cs  
│ ├── ReportRepository.cs

│ ├── FalcultyRespository.cs

├── Services/  
│ ├── EnrollmentService.cs  
│ ├── UserManagementService.cs  
│ ├── CourseManagementService.cs  
│ ├── SubmissionService.cs  
│ ├── ReportService.cs  
│ ├── AuthenticationService.cs

│ ├── FalcultyService.cs

├── Pages/  
│ ├── Students/  
│ │ ├── Index.cshtml  
│ │ ├── Create.cshtml  
│ │ ├── Edit.cshtml  
│ ├── Courses/  
│ │ ├── Index.cshtml  
│ │ ├── Create.cshtml  
│ ├── Account/  
│ ├── Login.cshtml  
├── appsettings.json  
├── Program.cs

# 2. Models

Example: Models/Student.cs

public class Student  
{  
 public string Id { get; set; }  
 public string Name { get; set; }  
 public string Email { get; set; }  
 public List<Course> Courses { get; set; } = new();  
}

Example: Models/User.cs

public class User  
{  
 public string Id { get; set; }  
 public string Email { get; set; }  
 public string PasswordHash { get; set; }  
 public string Role { get; set; } // Admin, Student, Faculty  
}