Practice Project 3

**Create an ASP.NET WEB API Application to Add Subject Marks to Students and View Their Marks**

**Source Code:**

**Subject.cs**

namespace PracticeProject3.Models

{

public class Subject

{

public int Id { get; set; }

public int StudentId { get; set; }

public string? StudentName { get; set; }

public string? SubjectId { get; set; }

public string? SubjectName { get; set; }

public int SubjectMark { get; set; }

}

}

**SubjectsController.cs**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Threading.Tasks;

using Microsoft.AspNetCore.Http;

using Microsoft.AspNetCore.Mvc;

using Microsoft.EntityFrameworkCore;

using PracticeProject3.Data;

using PracticeProject3.Models;

namespace PracticeProject3.Controllers

{

[Route("api/[controller]")]

[ApiController]

public class SubjectsController : ControllerBase

{

private readonly SubjectDbContext \_context;

public SubjectsController(SubjectDbContext context)

{

\_context = context;

}

// GET: api/Subjects

[HttpGet]

public async Task<ActionResult<IEnumerable<Subject>>> GetSubject()

{

if (\_context.Subject == null)

{

return NotFound();

}

return await \_context.Subject.ToListAsync();

}

// GET: api/Subjects/5

[HttpGet("{id}")]

public async Task<ActionResult<Subject>> GetSubject(int id)

{

if (\_context.Subject == null)

{

return NotFound();

}

var subject = await \_context.Subject.FindAsync(id);

if (subject == null)

{

return NotFound();

}

return subject;

}

// PUT: api/Subjects/5

// To protect from overposting attacks, see https://go.microsoft.com/fwlink/?linkid=2123754

[HttpPut("{id}")]

public async Task<IActionResult> PutSubject(int id, Subject subject)

{

if (id != subject.Id)

{

return BadRequest();

}

\_context.Entry(subject).State = EntityState.Modified;

try

{

await \_context.SaveChangesAsync();

}

catch (DbUpdateConcurrencyException)

{

if (!SubjectExists(id))

{

return NotFound();

}

else

{

throw;

}

}

return NoContent();

}

// POST: api/Subjects

// To protect from overposting attacks, see https://go.microsoft.com/fwlink/?linkid=2123754

[HttpPost]

public async Task<ActionResult<Subject>> PostSubject(Subject subject)

{

if (\_context.Subject == null)

{

return Problem("Entity set 'SubjectDbContext.Subject' is null.");

}

\_context.Subject.Add(subject);

await \_context.SaveChangesAsync();

return CreatedAtAction("GetSubject", new { id = subject.Id }, subject);

}

// DELETE: api/Subjects/5

[HttpDelete("{id}")]

public async Task<IActionResult> DeleteSubject(int id)

{

if (\_context.Subject == null)

{

return NotFound();

}

var subject = await \_context.Subject.FindAsync(id);

if (subject == null)

{

return NotFound();

}

\_context.Subject.Remove(subject);

await \_context.SaveChangesAsync();

return NoContent();

}

private bool SubjectExists(int id)

{

return (\_context.Subject?.Any(e => e.Id == id)).GetValueOrDefault();

}

}

}