**Source Code for EMS Full Stack App Requirement**

**DeptMaster:**

using System.ComponentModel.DataAnnotations.Schema;

using System.ComponentModel.DataAnnotations;

namespace EMS\_Full\_App\_Req.Models

{

[Table("DeptMaster")]

public class DeptMaster

{

[Key]

public int DeptCode { get; set; }

public string DeptName { get; set; }

public virtual ICollection<EmpProfile> EmpProfiles { get; set; }

}

}

**EmpProfile:**

using System.ComponentModel.DataAnnotations.Schema;

using System.ComponentModel.DataAnnotations;

namespace EMS\_Full\_App\_Req.Models

{

[Table("EmpProfile")]

public class EmpProfile

{

[Key]

public int EmpCode { get; set; }

public DateTime DateOfBirth { get; set; }

public string EmpName { get; set; }

public string Email { get; set; }

public int DeptCode { get; set; }

public virtual DeptMaster DeptMaster { get; set; }

}

}

**DeptMastersController:**

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 EMS\_Full\_App\_Req.Models;

using PhaseEnd1.Data;

namespace PhaseEnd1.Controllers

{

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

[ApiController]

public class DeptMastersController : ControllerBase

{

private readonly emsDbContext \_context;

public DeptMastersController(emsDbContext context)

{

\_context = context;

}

// GET: api/DeptMasters

[HttpGet]

public async Task<ActionResult<IEnumerable<DeptMaster>>> GetDeptMaster()

{

if (\_context.DeptMaster == null)

{

return NotFound();

}

return await \_context.DeptMaster.ToListAsync();

}

// GET: api/DeptMasters/5

[HttpGet("{id}")]

public async Task<ActionResult<DeptMaster>> GetDeptMaster(int id)

{

if (\_context.DeptMaster == null)

{

return NotFound();

}

var deptMaster = await \_context.DeptMaster.FindAsync(id);

if (deptMaster == null)

{

return NotFound();

}

return deptMaster;

}

// PUT: api/DeptMasters/5

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

[HttpPut("{id}")]

public async Task<IActionResult> PutDeptMaster(int id, DeptMaster deptMaster)

{

if (id != deptMaster.DeptCode)

{

return BadRequest();

}

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

try

{

await \_context.SaveChangesAsync();

}

catch (DbUpdateConcurrencyException)

{

if (!DeptMasterExists(id))

{

return NotFound();

}

else

{

throw;

}

}

return NoContent();

}

// POST: api/DeptMasters

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

[HttpPost]

public async Task<ActionResult<DeptMaster>> PostDeptMaster(DeptMaster deptMaster)

{

if (\_context.DeptMaster == null)

{

return Problem("Entity set 'emsDbContext.DeptMaster' is null.");

}

\_context.DeptMaster.Add(deptMaster);

await \_context.SaveChangesAsync();

return CreatedAtAction("GetDeptMaster", new { id = deptMaster.DeptCode }, deptMaster);

}

// DELETE: api/DeptMasters/5

[HttpDelete("{id}")]

public async Task<IActionResult> DeleteDeptMaster(int id)

{

if (\_context.DeptMaster == null)

{

return NotFound();

}

var deptMaster = await \_context.DeptMaster.FindAsync(id);

if (deptMaster == null)

{

return NotFound();

}

\_context.DeptMaster.Remove(deptMaster);

await \_context.SaveChangesAsync();

return NoContent();

}

private bool DeptMasterExists(int id)

{

return (\_context.DeptMaster?.Any(e => e.DeptCode == id)).GetValueOrDefault();

}

}

}

**EmpProfilesController:**

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 EMS\_Full\_App\_Req.Models;

using PhaseEnd1.Data;

namespace PhaseEnd1.Controllers

{

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

[ApiController]

public class EmpProfilesController : ControllerBase

{

private readonly emsDbContext \_context;

public EmpProfilesController(emsDbContext context)

{

\_context = context;

}

// GET: api/EmpProfiles

[HttpGet]

public async Task<ActionResult<IEnumerable<EmpProfile>>> GetEmpProfile()

{

if (\_context.EmpProfile == null)

{

return NotFound();

}

return await \_context.EmpProfile.ToListAsync();

}

// GET: api/EmpProfiles/5

[HttpGet("{id}")]

public async Task<ActionResult<EmpProfile>> GetEmpProfile(int id)

{

if (\_context.EmpProfile == null)

{

return NotFound();

}

var empProfile = await \_context.EmpProfile.FindAsync(id);

if (empProfile == null)

{

return NotFound();

}

return empProfile;

}

// PUT: api/EmpProfiles/5

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

[HttpPut("{id}")]

public async Task<IActionResult> PutEmpProfile(int id, EmpProfile empProfile)

{

if (id != empProfile.EmpCode)

{

return BadRequest();

}

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

try

{

await \_context.SaveChangesAsync();

}

catch (DbUpdateConcurrencyException)

{

if (!EmpProfileExists(id))

{

return NotFound();

}

else

{

throw;

}

}

return NoContent();

}

// POST: api/EmpProfiles

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

[HttpPost]

public async Task<ActionResult<EmpProfile>> PostEmpProfile(EmpProfile empProfile)

{

if (\_context.EmpProfile == null)

{

return Problem("Entity set 'emsDbContext.EmpProfile' is null.");

}

\_context.EmpProfile.Add(empProfile);

await \_context.SaveChangesAsync();

return CreatedAtAction("GetEmpProfile", new { id = empProfile.EmpCode }, empProfile);

}

// DELETE: api/EmpProfiles/5

[HttpDelete("{id}")]

public async Task<IActionResult> DeleteEmpProfile(int id)

{

if (\_context.EmpProfile == null)

{

return NotFound();

}

var empProfile = await \_context.EmpProfile.FindAsync(id);

if (empProfile == null)

{

return NotFound();

}

\_context.EmpProfile.Remove(empProfile);

await \_context.SaveChangesAsync();

return NoContent();

}

private bool EmpProfileExists(int id)

{

return (\_context.EmpProfile?.Any(e => e.EmpCode == id)).GetValueOrDefault();

}

}

}