using System;

using System.Collections.Generic;

using System.Linq;

public class Department { public int Id { get; set; } public string Name { get; set;}}

public class Skill { public int Id { get; set; } public string Name { get; set; } }

public class Employee {

public int Id { get; set; }

public string Name { get; set; }

public int Salary { get; set; }

public bool Permanent { get; set; }

public Department Department { get; set; }

public List<Skill> Skills { get; set; }

public DateTime DateOfBirth { get; set; }}

public class EmployeeController {

private List<Employee> \_employees;

public EmployeeController() {

\_employees = new List<Employee> {new Employee {

Id = 1, Name = "John", Salary = 50000, Permanent = true,

Department = new Department { Id = 1, Name = "HR" },

Skills = new List<Skill> { new Skill { Id = 1, Name = "C#" } },

DateOfBirth = new DateTime(1990, 1, 1)},

new Employee {

Id = 2, Name = "Alice", Salary = 60000, Permanent = false,

Department = new Department { Id = 2, Name = "IT" },

Skills = new List<Skill> { new Skill { Id = 2, Name = "Python" } },

DateOfBirth = new DateTime(1992, 2, 2)}};}

public string Put(int id, Employee input){

if (id <= 0)

return "400 Bad Request: Invalid employee id";

var existing = \_employees.FirstOrDefault(e => e.Id == id);

if (existing == null)

return "400 Bad Request: Invalid employee id";

existing.Name = input.Name;

existing.Salary = input.Salary;

existing.Permanent = input.Permanent;

existing.Department = input.Department;

existing.Skills = input.Skills;

existing.DateOfBirth = input.DateOfBirth;

return $"200 OK: Employee updated:\nId: {existing.Id}, Name: {existing.Name}, Salary: {existing.Salary}, Dept: {existing.Department.Name}";}}

public class Program {public static void Main() {

var controller = new EmployeeController();

Console.WriteLine("=== PUT Employee Update ===");

var updatedEmp = new Employee {

Id = 2,

Name = "Alice Updated",

Salary = 70000,

Permanent = true,

Department = new Department { Id = 3, Name = "Finance" },

Skills = new List<Skill> { new Skill { Id = 3, Name = "Java" } },

DateOfBirth = new DateTime(1991, 3, 3)};

string result = controller.Put(2, updatedEmp);

Console.WriteLine(result);}}

