Lab 5: Retrieving Data from the Database

Code:

// Product.cs

public class Product

{

public int ProductId { get; set; }

public string Name { get; set; }

public decimal Price { get; set; }

}

// AppDbContext.cs

using Microsoft.EntityFrameworkCore;

public class AppDbContext : DbContext

{

public DbSet<Product> Products { get; set; }

protected override void OnConfiguring(DbContextOptionsBuilder optionsBuilder)

{

optionsBuilder.UseSqlServer(@"Server=(localdb)\mssqllocaldb;Database=RetailStoreDB;Trusted\_Connection=True;");

}

protected override void OnModelCreating(ModelBuilder modelBuilder)

{

modelBuilder.Entity<Product>().HasData(

new Product { ProductId = 1, Name = "Laptop", Price = 750 },

new Product { ProductId = 2, Name = "Phone", Price = 300 },

new Product { ProductId = 3, Name = "Tablet", Price = 450 }

);

}

}

// Program.cs

using System;

using System.Linq;

class Program

{

static void Main(string[] args)

{

using (var context = new AppDbContext())

{

context.Database.EnsureCreated();

Console.WriteLine("All Products:");

var products = context.Products.ToList();

foreach (var product in products)

{

Console.WriteLine($"ID: {product.ProductId}, Name: {product.Name}, Price: {product.Price}");

}

Console.WriteLine("\nProducts priced above 500:");

var expensiveProducts = context.Products

.Where(p => p.Price > 500)

.ToList();

foreach (var product in expensiveProducts)

{

Console.WriteLine($"ID: {product.ProductId}, Name: {product.Name}, Price: {product.Price}");

}

}

}

}

Output:

