EF Core 8.0 Guided Hands-On Exercises

Lab 5: Retrieving Data from the Database

```csharp
using Microsoft.EntityFrameworkCore;
using MyFirstConsoleApp_6363862;

class Program
{
    static async Task Main(string[] args)
    {
        // Create the database context to access tables
        using var context = new AppDbContext();

        // STEP 1: Retrieve All Products
        Console.WriteLine("🔎 Retrieving All Products:");
        var products = await context.Products.ToListAsync(); // Gets all products from the table

        foreach (var p in products)
        {
            // Display each product's name and price
            Console.WriteLine($"{p.Name} – ₹{p.Price}");
        }

        // STEP 2: Find a Product by Primary Key (Id = 1)
        Console.WriteLine("\n🔍 Finding Product by ID = 1:");
        var product = await context.Products.FindAsync(1); // Uses the primary key
        Console.WriteLine($"Found: {product?.Name}"); // Safe access using null check

        // STEP 3: Find First Product with Price > 50,000
        Console.WriteLine("\n🔍 Finding Expensive Product (Price > ₹50000):");
        var expensive = await context.Products.FirstOrDefaultAsync(p => p.Price > 50000); // Applies a filter
        Console.WriteLine($"Expensive: {expensive?.Name}");
    }
}
```

Retrieve All Products:

Find by ID:

FirstOrDefault with Condition:

```
?? Retrieving All Products:
Laptop – ?75000.00
Rice Bag – ?1200.00

?? Finding Product by ID = 1:
Found: Laptop

?? Finding Expensive Product (Price > ?50000):
Expensive: Laptop

C:\Users\soupt\source\repos\MyFirstConsoleApp_6363862\MyFirstConsoleApp_6363862\bin\Debug\net8.0\MyFirstConsoleApp_63638
62.exe (process 24904) exited with code 0 (0x0).
To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the conso
le when debugging stops.
Press any key to close this window . . .
```