Building a Mini Microservice with ASP.NET Core - Task 10

Program that creates a RESTful API that manages a resource (Books) :

Flow :

Swagger → sends a request to the REST API
API → accesses database using EntityFramework
API → sends response to Swagger (in JSON format)

Files :

1. **Book.cs**
   Defines the data model for a book.
   Contains properties : Id, Title, Author.

2. **AppDbContext.cs**
   Sets up the Entity Framework Core context.
   Represents an in-memory database and sets a *DbSet<Book> Books* for CRUD operations.
   Now "Books" represents a table.

3. **BookService.cs**
   Connects to the database using DbContext.
   Implements the actual logic related to Books.
   Includes methods to : Get all books, Get book by ID, Add a new book, Delete a book.

4. **BooksController.cs**
   Handles the incoming HTTP requests.
   Maps GET, POST, DELETE to functions.
   Connects with BookService.cs to perform actions.

5. **Program.cs**
   Sets up the whole application.
   Registers services (DbContext, BookService), Enables controllers, Enables Swagger for API testing, Handles errors and Runs the web app.

Output :


BookMicroservice
1.0
OAS 3.0
http://localhost:5199/swagger/v1/swagger.json
Books
GET /api/Books
POST /api/Books
GET /api/Books/{id}
DELETE /api/Books/{id}