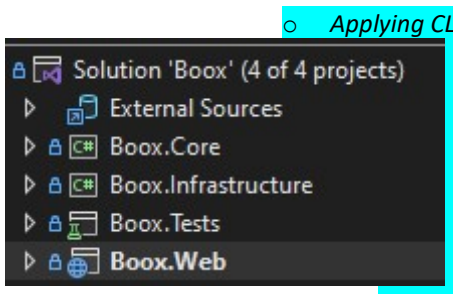
https://github.com/proggzMartin/Boox

Requirements

- The API can be written in either Java or C#
- The API should always return a collection of books in json format.
- By default, it should return all books without any specific sorting.
- If a specific field is searched it should return the result sorted on that field.
- It should be possible to search on any field.
- When creating a new book, use the same ID standard as the rest of the books
    - Didn't manage to make ID-increment on the format "B1", "B2". Found the attribute **[DatabaseGenerated(DatabaseGeneratedOption.Identity)]** , but didnt find a way to alter this further and follow the desired pattern.
- The API should be written in .NET > 5.0
- Whatever field I ask for, it should return the result sorted by that field.
- I should be able to ask for an author, a title, a genre, or a description. It should perform the search "case insensitive" and with partial strings. So, if I ask for "/api/books/author/kim" it should return only the book by "Ralls, Kim".
- I should be able to ask for a price range or a specific price.
- I should be able to ask for published_date or part of it, that means all books, books from a certain year, books from a certain year-month or books from a certain year-month-day.
- I should be able to edit any field for any book using the book ID as a search parameter.
- I should be able to create a new book.

Hints

- Divide the solution into what you think is architectural suitable parts.
    - *Applying CLEAN-architecture*



        - ***Core** contains classes in common of the solution such as Entities, Dto's, Interfaces, Exceptions and domain services related to the domain.*
        - ***Infrastructure** contains direct external dependencis such as Repositories and DbContext-classes. The Core-project should strive towards zero depoendency on external needs/infrastructure and the Infrastructure-library contains these dependencies instead.*
        - ***Tests** contains unittests.*
        - ***Web** contains of course the Api-definition with controllers, utilizing services, repos and dbcontext from Core and Infrastructure-libraries and contains*
- Refactor the code to make it as easy as possible to read and maintain.
- Use coding techniques like well-known patterns and practices and naming conventions.
- Make use of abstractions, dependency injections, extensions, expressions, attributes etc.
- Make use of different routes in the controller.
- If you are familiar with testing, we would really like to see some unit tests :)
- Don't worry if you think it seems like a tough test! Just do your best. If the requirements and use cases are covered, you are safe. The rest is only to judge the maturity of your skills.