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SimpleBookstore – Project Summary

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1 Functional description

SimpleBookstore is a C# .NET 8 console application implementing CRUD (Create, Read, Update, Delete) operations on an in-memory list `List<BookItem>`. The set of CRUD use cases is illustrated in the next sections.

The `BookItem` entity has 5 data members:

- Title
- Authors
- Publisher
- Year
- Id

2 Main menu

After starting the application, the main menu is shown

```

App: M02-L20, v.2.0.0.4
Today is 4/02/2024 23:10:33

1
2 Welcome to Simple Bookstore application
3 Main Menu:
4 (1) Add book to list
5 (2) Read boek details
6 (3) Edit book
7 (4) Remove book from List
8 (5) View book list
9 (6) Autogenerate book list
0 (7) Exit application
1 Enter your menu choice:
2
3
4
5
6
7
8
9
0
1

```

3 Option (1) : add new book

```

Enter your menu choice:
1
Enter book title:
Visual Studio Code Distilled
Enter authors:
Alessandro Del Sole
Enter publisher:
Apress
Enter year of publication (from 1900 until next year):
2021
[DONE]
Main Menu:
(1) Add book to list
(2) Read book details
(3) Edit book
(4) Remove book from list
(5) View book list
(6) Autogenerate book list
(7) Exit application
Enter your menu choice:

```

After adding a new book, now we use option (5) to see all books. Indeed the new book is in the list.

```

Enter your menu choice:
5
-----
Showing books list
-----
Title: Visual Studio Code Distilled
Authors: Alessandro Del Sole
Publisher: Apress
Year: 2021
Id: 1
-----

```

4 Option (2) view the details of a selected book

We select option 2 and use book Id = 2 to check book details.

```

Enter your menu choice:
2
Enter Book Id:
1
Title: Visual Studio Code Distilled
Authors: Alessandro Del Sole
Publisher: Apress
Year: 2021
Id: 1

```

5 Option (3): edit a book from in-memory backend

In this case we select book Id = 1 and modify book publication year from 2021 to 2022.

```

Enter your menu choice:
3
Enter Book Id:
1
Current Title:
Visual Studio Code Distilled
Enter book title:
Visual Studio Code Distilled
Current Authors:
Alessandro Del Sole
Enter authors:
Alessandro Del Sole
Current Publisher:
Apress
Enter publisher:
Apress
Current year of publication
2021
Enter year of publication (from 1900 until next year):
2022
[DONE]

```

After editing a book, now we use option (5) to see all books. Indeed the year of publication was changed.

```

Enter your menu choice:
5
-----
Showing books list
-----
Title: Visual Studio Code Distilled
Authors: Alessandro Del Sole
Publisher: Apress
Year: 2022
Id: 1
-----

```

6 Option (4): remove book

We select option (4) and remove book with Id = 1.

```

Enter your menu choice:
4
Enter Book Id:
1
[DONE]

```

Next, we choose option (5) to view the resulting list.
In this case, the list is empty

```

Enter your menu choice:
5
-----
Showing books list
-----
[Books list is empty]
-----

```

7 Option (6): the autogenerate function

If needed, autogenerate function can be used. This function will populate the backend with 3 objects of type BookItem.

```

Enter your menu choice:
6
[Adding 3 books...]
[DONE]

```

After using the autogenerate function we can check the status of the backend using option (5). This is shown in the next section.

8 Option (5): view book list

This function will show all items present in the in-memory backend. When inserting into the backend, unique Id properties are generated automatically. This is visible in the list.

```

Enter your menu choice:
5
-----
Showing books list
-----
Title: The C# Programming Language
Authors: Anders Hejlsberg
Publisher: Wiley
Year: 2014
Id: 1

Title: Beginning gRPC with ASP.NET Core 6
Authors: Anthony Giretti
Publisher: Apress
Year: 2022
Id: 2

Title: Learn PHP 8
Authors: Steve Prettyman
Publisher: Apress
Year: 2020
Id: 3
-----

```

9 Option (7): exit application

Choosing option 7 starts the exit procedure for the application.

```
-----  
Main Menu:  
(1) Add book to list  
(2) Read boek details  
(3) Edit book  
(4) Remove book from List  
(5) View book list  
(6) Autogenerate book list  
(7) Exit application  
Enter your menu choice:  
7  
  
STOPPING: Press any key to exit ...
```

The console is closed after pressing any key.

10 Conclusion

The above tests of the use cases show that the application implements CRUD operations on a list of book items.