

# Introduction to .NET – lab no. 3

Way of working: work in pair with one colleague.

Summary:

Keywords: inheritance, collections, repository pattern, LINQ, Query syntax, method syntax

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## *Prerequisites:*

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- a) Create a Blank solution
- b) Add a Class Library (.NET Core)
- c) Add a Unit Test Project (.NET Core)
- d) Add dependency between Test Project and Class Library
- e) Use the Book class (and encapsulation).

Book Id

Title (max 100)

Year

Price

Genres (use an enumerator to manipulate fiction and non-fiction)

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## *Exercise: s*

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- 1. Using the Book class.
  - a. Create Book Repository.
  - b. Expose and test the following behaviour using query syntax
    - i. RetrieveAllBooks
    - ii. RetrieveAllOrderByYearDescending
    - iii. RetrieveAllOrderByYearAscending
    - iv. RetrieveAllOrderByPriceAscending
    - v. RetrieveAllOrderByPriceDescending
    - vi. RetrieveAllBooksGroupedByGenre
  - c. Expose and test the following behaviour using method syntax
    - i. RetrieveAllBooks
    - ii. RetrieveAllOrderByYearDescending
    - iii. RetrieveAllOrderByYearAscending

- iv. RetriveAllOrderByPriceAscending
- v. RetriveAllOrderByPriceDescending
- vi. RetriveAllBooksGroupedByGenres

d. For testing Populate an IEnumerable of Books using SUT approach(minimum 10 books)

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*Note:*

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1. All exercises are mandatory.
2. You will receive your points at the end of the lab.
3. Working time: 80 minutes.