

Library 2: Book entity

Core project: Book entity class

In the Entities folder, add a new class called Book.

Automatic properties

For now, these can all be automatic properties with public get and set, except for the Id property, which should be readonly (get only, no set).

If marked nullable, the property is optional and can be null. Otherwise, a value should always be present.

- Id (readonly)
- Title
- Author
- Page count
- Times borrowed
- Borrower (nullable)
- Borrow date (nullable)
- Due date (nullable)

Calculated readonly properties

- Available? (return true if and only if there is no borrower)
- Borrowed? (opposite of Available)

Constructors

Complete parameterized constructor

- Parameters: one for each automatic property
- Initialize all automatic properties according to the parameters

Partial parameterized constructor

- Parameters: one for each automatic property, except Id
- Use constructor chaining to call the complete parameterized constructor, instead of manually initializing
- Initialize the Id property with the default value of its type
- Initialize all other automatic properties according to the parameters

Copy constructor

- Parameters: id, original book
- Use constructor chaining to call the complete parameterized constructor, instead of manually initializing
- Initialize the Id property according to the id parameter
- Initialize all other automatic properties by copying the original book's properties

Override method: ToString

- Return a short label identifying this book object, including the type, the id, and the title
- Example: "Book 1000001 The Brothers Karamazov"