



LIBRARY PROJECT

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PROJECT SUMMERY

A library managing application, for both librarians and customers.

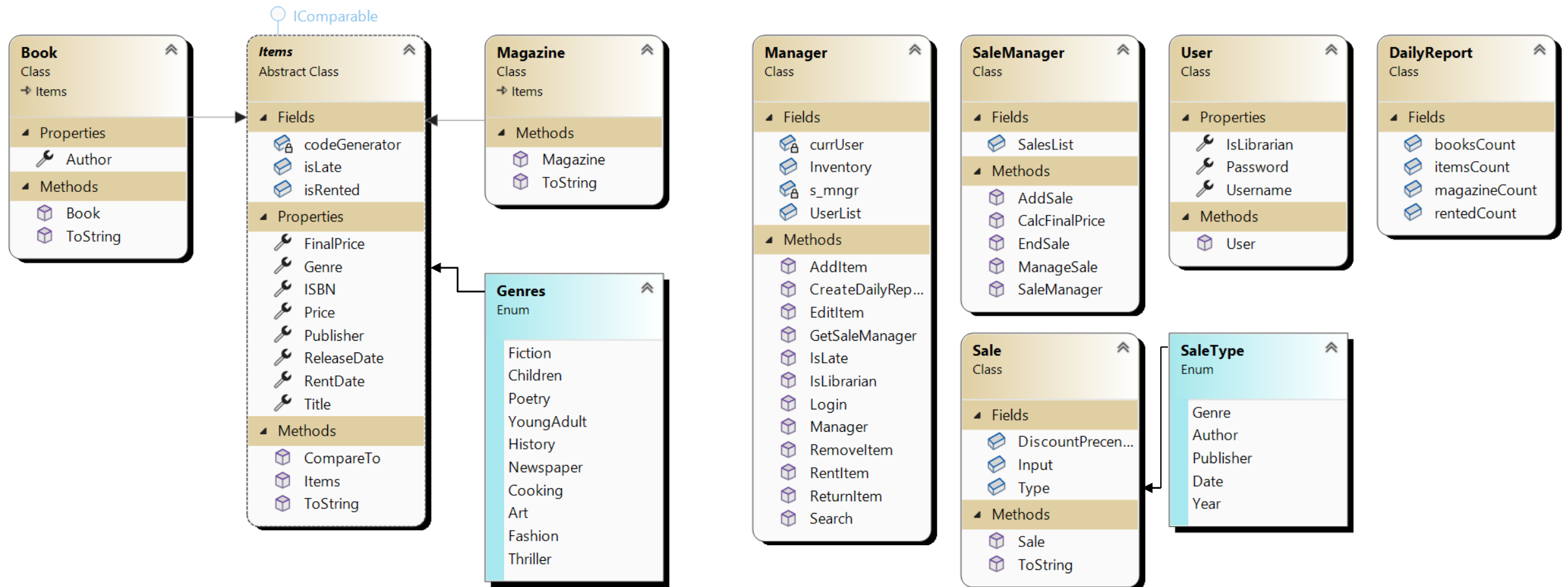
Librarians can control the inventory and active discounts,

While customers can only rent or return items (books or magazines).

The application was developed on .NET framework, using C#.

It is managed by a DLL class named “Manager” and implemented using UWP.

CLASS DIAGRAM



CLASS DIAGRAM — CONTD.

A base abstract class names “**Items**”. Each item is declared with a title, genre, publisher, release date, and price.

Two classes inherit from class “Items”: class “**Magazine**” and class “**Book**”. Class “Book” has one extra property — Author.

Genres are declared in “**Genres**” class, which contains [flags] Enum for each genre.

“**Manager**” class manages all processes and data. Contains the app data — users list, items list and sales list.

“**SaleManager**” class manages an updating list of sales, and all sale managing methods. A new sale is created using the “**Sale**” class. Sale types are declared in “SaleType” class, by Enums.

Users are created using “**User**” class.

A daily report is created using the “**DailyReport**” class.

Screens and Controls

MAIN PAGE

Two fields to enter
username and password.

“**Enter**” button – if entered
correctly, navigate to
inventory page.

Else – pop a message
dialogue stating the issue.

WELCOME TO THE LIBRARY

USERNAME:

PASSWORD:

ENTER

INVENTORY PAGE

...

Filter by

Type here

Bird Box, by Josh Malerman [not rented]

Harry Potter and the Chamber of Secrets, by J.K. Rowling [not rented]

Harry Potter and the Philosopher's Stone, by J.K. Rowling [rented]

Harry Potter and the Prisoner of Azkaban, by J.K. Rowling [not rented]

La'isha, 01/02/2023 [not rented]

La'isha, 01/09/2020 [not rented]

Maariv Lenoar, 01/05/2006 [not rented]

Rent

Return

Edit

Delete

ISBN: 1100

Title: Harry Potter and the Philosopher's Stone

Written by: J.K. Rowling

Genre: Fiction

Publisher: Bloomsbury

Release Date: 26/06/1997

Price: ₪20.00

Final Price: ₪14.00

Rent date: 02/02/2023

LATE RETURN

INVENTORY PAGE — CONTD.

The main page of the app. Contains a ListView of the InventoryList.

When an item is selected, the text box on the right side shows all **item details**.

A book will have an “**Author**” field. A rented item will have a “**Rent date**” field. A late return item (over 14 days since rental) will have a “**late return**” note.

Filter function — show all or filter by author / genre / publisher.

Rent and **Return** buttons to change rental status.

As an admin:

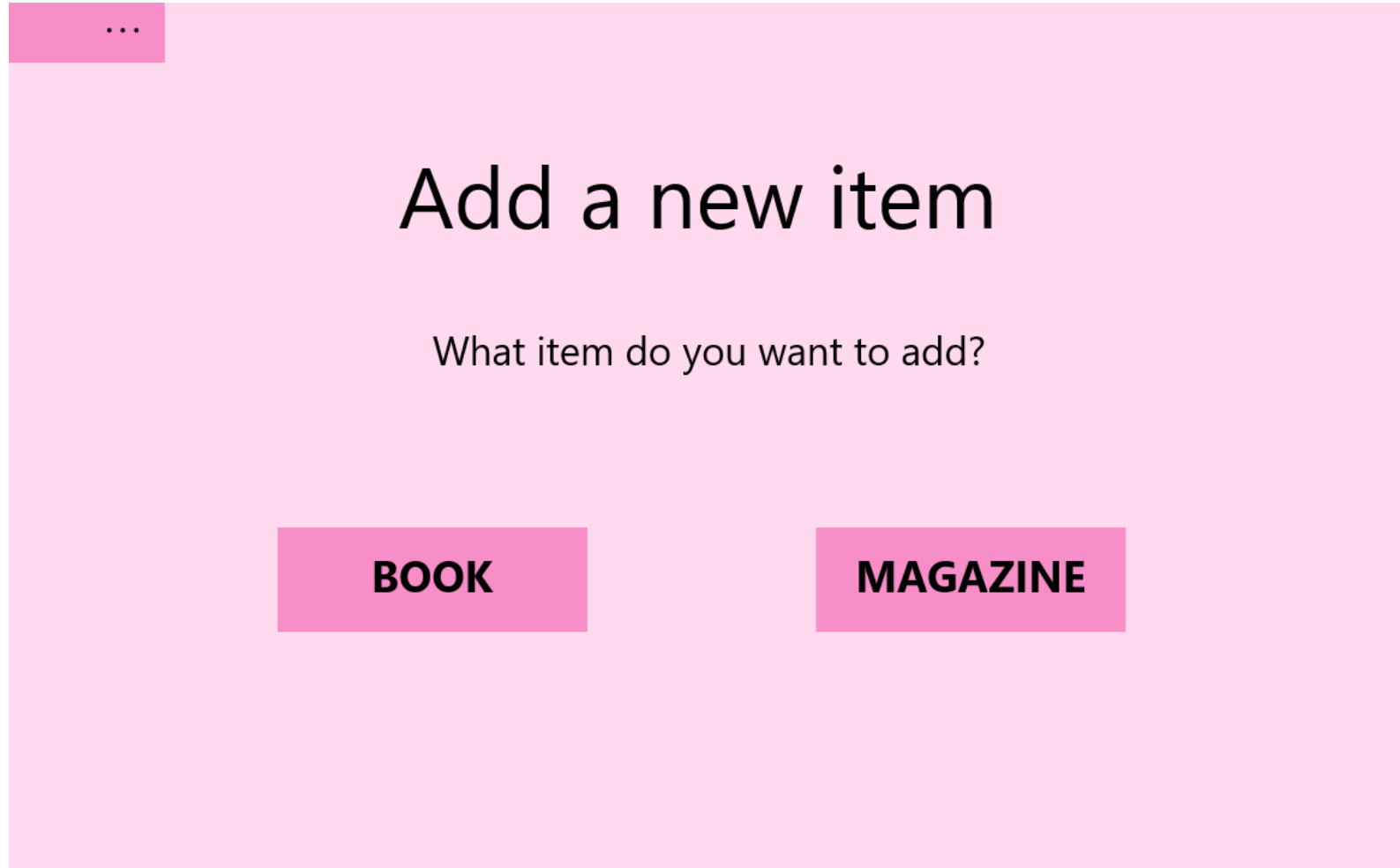
Edit button — goes to “AddItem” page.

Delete button — delete selected item.

ADDITEM PAGE

Navigated to from “Add item”, or from “Edit” button in the inventory.

When clicking “Book” or “Magazine”, navigates to “NewItemDetails”. If book is chosen, “NewItemDetails” will have an author field.



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Add a new item

What item do you want to add?

BOOK **MAGAZINE**

NEWITEMDETAILS PAGE

When navigated to from “Edit” – the fields will be filled with the item’s current details.

Submit button will update the item’s details.

When navigated to from “New Item” – Submit button will create a new item and add it to the inventory list.

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Author:

Title:

Publisher:

Genre:

Release date:

month

day

year

Price:

Submit

DAILYREPORT PAGE

A display of current statistics.

...	
Daily Report	
Total number of products:	12
Number of books:	5
Number of magazines:	7
Currently rented items:	1

SALEMANAGER PAGE

Displays the active discounts.

A new discount can be added by choosing a discount type, entering a value and discount percentage between 1-100, and clicking “Add Sale”.

A selected sale can be deleted by clicking “End Sale”.

The screenshot displays the 'Active Discounts' section of the SALEMANAGER PAGE. At the top left, there is a pink button with three dots. The main title 'Active Discounts' is centered at the top. Below the title, there are two rows of discount information: 'Genre: Newspaper, 20%' and 'Author: J.K. Rowling, 30%'. At the bottom of this section is a large pink button labeled 'End Sale'. To the right of the 'Active Discounts' section is a form titled 'Add a new discount'. This form includes a 'Filter by' dropdown menu, a text input field labeled 'Type here', a 'Percentage' input field, and an 'Add Sale' button.

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Active Discounts

Genre: Newspaper, 20%

Author: J.K. Rowling, 30%

End Sale

Add a new discount

Filter by ▼

Type here

Percentage

Add Sale