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Epam
Java Web Training Capstone Project
Book Reservation application

What web app would it be?

It will be a website to manage book reservation in a library

Who is this project for?

For readers to reserve books remotely, for taking them later

What needs will it satisfy?

Reader's needs to reserve a book without reaching to the library, and library's need to not be too crowded, and to attract more readers

Requirements

Functional

- Must require the user to register with his/her name, surname, email, phone number, password
- The application must let the user search through the books
- Show if a book is available or not
- Show books' descriptions
- Show the user's reservation history
- Mark the book not available after it is reserved
- Mark the book available after it is returned (must let the admin to manually change its availability)
- Let the admin add new books

Non-functional

- 24/7 booking
- Pleasant design
- Understandable user interface
- Reliability
- Maintainability
- Performance

Use cases

Title: Register User

Primary actor: Reader

Success scenario: The new user enters the name, surname, email, phone number, password, in the registration form. The application creates a new account with that information and logs in.

Title: Search title

Primary actor: Reader

Success scenario: The reader searches for a book with a title. The application returns matching books to the user. The result will also contain the availability of the books

Extension: In case of nothing was found, the application notifies the user.

Title: See book description

Primary actor: Reader

Success scenario: The reader enters the description section of a book. The application returns all the information available for that book

Precondition: The reader has searched for a book with a title, and the application has returned the matching ones

Title: See reservation history

Primary actor: Reader

Success scenario: The reader enters the reservation history section. The application returns the user's book reservation history

Extension: If the user has no reservation history yet, then the application notifies about it

Title: Reserve book

Primary actor: Reader

Success scenario: The reader reserves a book. The book becomes unavailable for other users. The reservation adds to the reservation history of the user

Precondition: The reader has searched for a book, and the book is available

Title: Change status manually

Primary actor: admin

Success scenario: The admin changes the availability of a book to one of the options.

Precondition: The admin has searched the book.

Title: Add book

Primary actor: admin

Success scenario: The admin fills in the information for the new book and adds the book to the application.

Objects, classes and relationships

User

Book

Author

Genre

Reservation

User makes reservation

Reservation contains book

Book has author(s)

Book has genre(s)