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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
- The application must let the user to 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-funtional
- 24/7 booking
- Pleasant design
- Understandable user interface

Use cases

Title: Search title
Primary actor: Reader
Success scenario: The reader types in some keywords in the search field. The application searches the books with titles containing the sequence of characters and returns them to the reader (returns a line telling that nothing was found in case of no search result). The result will also contain the availability of the books.

Title: See book description
Primary actor: Reader
Success scenario: The reader clicks on the button named "description" on the book. The application switches to another page, where it shows all the information available for that book.
Precondition: The reader has searched for books via search field

Title: See reservation history
Primary actor: Reader
Success scenario: The reader clicks on the button named "reservations" on the home page. The application switches to another page, where it shows user's reservation history

Title: Reserve book
Primary actor: Reader
Success scenario: The reader clicks on the button named "reserve" on the book. The application sets the book "unavailable". The application sets the reader's name in the book's "reserver" field in the database.
Precondition: The reader has searched for books via search field

Title: Change status manually
Primary actor: admin
Success scenario: The admin clicks on the button for book availability and chooses one of the options "available" or " not available".
Precondition: The admin has searched the book via the search field.

Title: Add book
Primary actor: admin
Success scenario: The admin clicks on the button "New book". The application shows a window, where the new book's information should be written. The admin fills in the fields in the window and presses the "confirm" button. The application adds a new book instance with the typed in parameters into the database.
Precondition: The admin has searched the book via the search field.

Objects, classes and relations

User
Book
Author
Genre
Reservation