Practical Assignment 1
Your Library

Web Semântica
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Introduction

Introduction

Goal

Develop a book information system with the goal of exposing and managing all the information in the system.

Vision

Obtain an information system capable of serving as a book display and able to manage the read books, also taking into account their various information.

02

Data

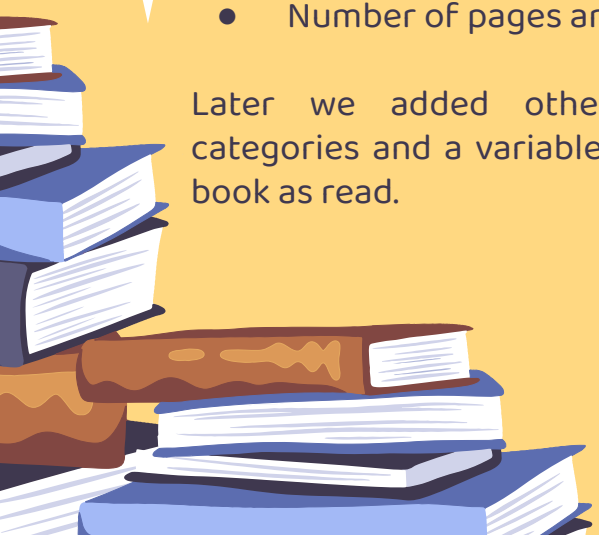
Data

Origin: Kaggle - CSV File
About 11 000 books from GoodReads.com

Dataset information:

- Book title and authors;
- Rating and number of reviews;
- ISBN;
- Number of pages and book language;

Later we added other information such as categories and a variable for the user to mark the book as read.



Dataset Flow

01

Dataset

Finding the right dataset for the application objective

02

Conversion

Create a script that can convert data from CSV to N-Triples

03

Added info

Adding the new information ("has_seen" and "genre")

04

GraphDB

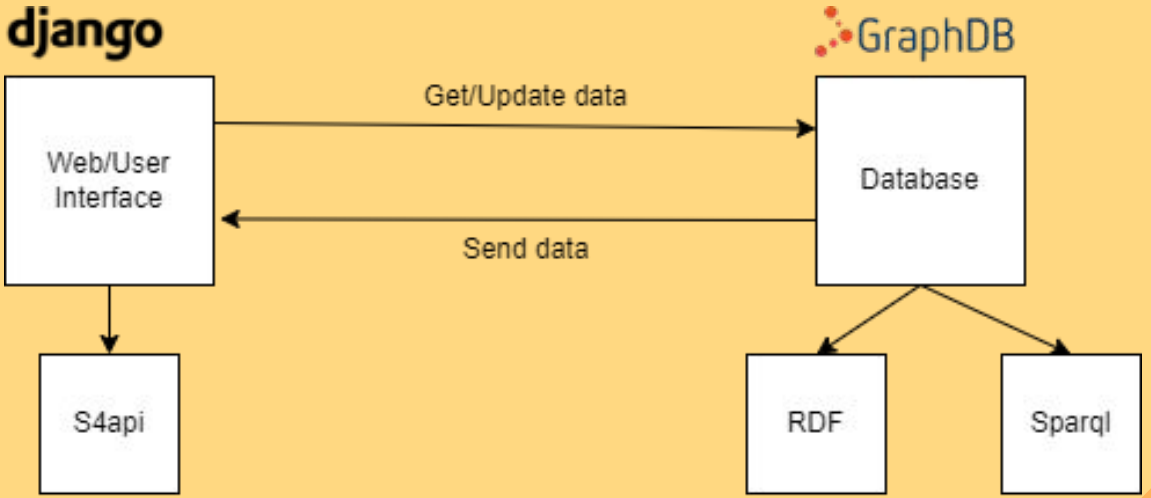
Import the .nt file into GraphDB

03

Architecture

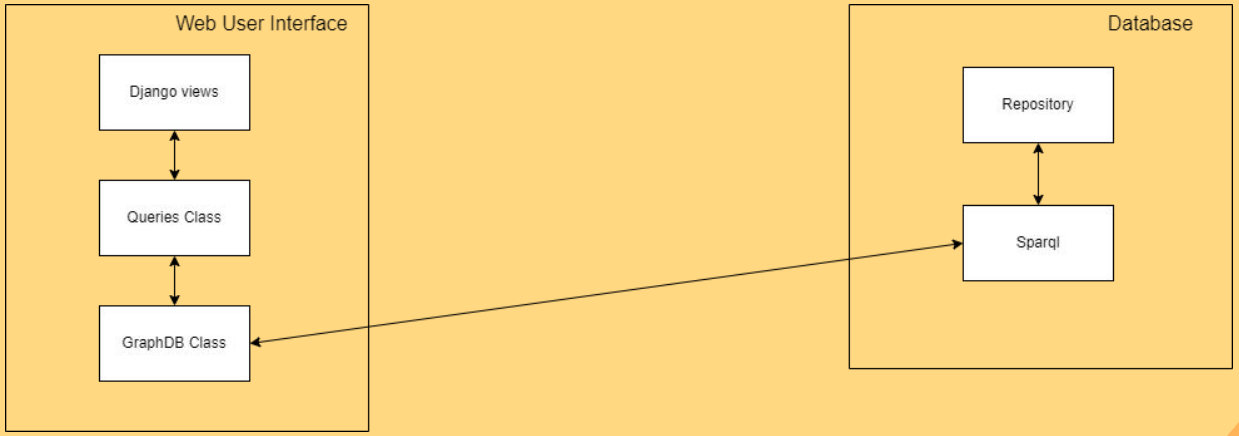
Architecture

General Architecture



Architecture

Workflow Architecture



04

Views

Views

The user can check the existing books in several ways. Each page returns a sortable table of the specified books.

- By Categories:
  - All
  - Good (Rating >4.5)
  - Bad (Rating <3.5)
  - Popular (Reviews >10000)
  - Long (Pages >1000)
  - Short (Pages <1000)
  - Read books
- By Author
- From the Search bar

```
path('admin/', admin.site.urls),
path('', views.home, name='home'),
path('home/', views.home, name='home'),
path('books/', views.books, name='books'),

path('books/<str:book_isbn>/', views.book, name='book'),
path('update/<str:book_isbn>/', views.update, name='update'),
path('books/authors/<str:author_name>/', views.author, name='author'),

path('categories/good/', views.good_books, name='good_books'),
path('categories/bad/', views.bad_books, name="bad_books"),
path('categories/popular/', views.popular_books, name="popular_books")
path('categories/long/', views.long_books, name="long_books"),
path('categories/short/', views.long_books, name="short_books"),
path('categories/read/', views.seen_books, name="read_books"),
path('search/', views.search_books, name="search_books"),
```


ALL BOOKS: 11127
GOOD BOOKS: 4735
BAD BOOKS: 734
POPULAR: 1960
LONG BOOKS: 5558
SHORT BOOKS: 5569
READ BOOKS: 3

Demo 05

Conclusion 06

Conclusion

With this project we were able to learn how to interact with data, since the beginning of the process with the conversion until their use on the UI.

Thus, we developed a functional user library, able to show several thousand books with filters, sorts and search functions implemented.

Regarding future work, we would like to implement authentication and authorization and an admin view to do the CRUD operations.

Thanks!

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