



# UNIVERSITÀ DI PISA



## **Master's Degree in Artificial Intelligence and Data Engineering**

Large-Scale and Multi-Structured Databases

### **Book Net**

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# Chapter 1

## Introduction

BookNet is a centralized application that aggregates book data, ratings, reviews, and meta-data from multiple trusted sources, including Goodreads, Amazon, and Google Books. By consolidating this information into a single platform, BookNet enables users to efficiently explore and evaluate books without switching between multiple services. The application presents clear summaries, reader feedback, and comparative insights, allowing users to make informed reading choices.

In addition to aggregation, BookNet provides intelligent discovery features that help readers find new books based on thematic similarities, writing style, genre, and author relationships. The platform highlights connections between stories and showcases what other readers with similar interests have enjoyed. This approach promotes meaningful and personalized recommendations rather than generic suggestions, enhancing the overall reading discovery experience.

Administrators play a critical role in maintaining the integrity and performance of the system. Their responsibilities include managing book records (such as adding, updating, or removing book and image entries), and overseeing user activity. Administrators have access to detailed analytics that provide insights into reading trends, popular books and authors, active users, and overall system performance. These analytics support data-driven decision-making and continuous platform improvement.

By integrating data aggregation, intelligent recommendations, social engagement, and administrative oversight, BookNet offers a user-centric ecosystem. Readers can track their

reading habits, and stay informed about emerging trends in the literary world. Overall, BookNet aims to simplify book discovery while enriching the reading experience through meaningful insights and connections.

# Chapter 2

## User Manual and Mockups

We have three actors

1. Unregistered User
2. Reader
3. Administrator

Both unregistered and registered users are end users of the application. Unregistered users have limited access to the system; they cannot receive personalized recommendations, like or follow authors, or connect with other readers who share similar interests.

Registered users, on the other hand, can fully utilize the application's features. They can view personalized recommendations, track their reading history, access user activity analytics, explore popular books, and interact with other readers with similar tastes.

Administrators are responsible for managing registered users and maintaining the book-related data within the application.

MockUps

Unregistered User View

# **Chapter 3**

## **Design**



## **Chapter 4**

# **Data Modelling and Structure**

# **Chapter 5**

## **Implementation**

## **Chapter 6**

### **Relevant Operations**

# **Chapter 7**

## **Design Choices**

## **Chapter 8**

### **Future Works**

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