

# Characterization document

## BookFinder

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GitHub link : <https://github.com/Yuval-Betito/book.git>

## **1. Background**

Many people find it difficult to find books that suit their taste, especially when the information is scattered among different sources such as online bookstores, libraries and personal recommendations. Today, users have to go through many websites to find a book that suits them, read reviews or find out more details about books.

A central web system can provide an efficient solution, make it easier for users to search for books, and enable a rich and intuitive user experience.

## **2. The purpose of the project**

The goal of Book finder is to create an interactive website that brings together information about books from different sources. The website will allow users to: find books quickly and easily according to parameters such as the book's name, author, genre or year of publication.

In addition, the website will be able to display detailed information about books including a summary, image, ratings and reviews. Saving books to a personal reading list and sharing site recommendations will also provide site administrators with tools to manage data quality and track user activity.

## **3. System description**

### **3.1 The nature of the application**

3.1.1. The website application will be developed using Web technologies (Django).

3.1.2. Information sources: integration of external APIs such as Google Books, in addition, the option of manually entering books by users or administrators will be provided

3.1.3 Database: Using MySQL to manage books, users and reviews data.

### **3.2 System users**

3.2.1 Regular user - Only registered users will be able to view book details, add opinions, view ratings, reviews and save favorite books.

One will also be able to search for books according to various parameters such as book name, author and genre and will be able to see ratings and review

3.2.2 Manager - adding, editing or removing books entered by users, user management (blocking, deleting) and tracking user activity reports.

3.2.3 Bot - will collect information from external sources (websites, etc.), will be able to enter new books and will also be able to analyze and organize the data to create an up-to-date and reliable database.

Each participant will be identified by: e-mail and password.

### **3.3 List of website capabilities**

3.3.1 The basic component of the website will be a book search engine

3.3.2 The website will allow users to register and connect to the system, it will also allow unregistered users to view the site.

3.3.3 The website will allow users to add book data by book name, author, abstract, genre, year of publication and a picture of the cover (up to 15 MG).

3.3.4 The website will authorize unregistered users to view the books in a detailed manner: book name, author, summary, genre, rating, year of publication, image of the cover and reviews .

3.3.5 The website will allow users to query the database and display it on the website according to the following parameters:

3.3.5.1 Name of the book.

3.3.5.2 Author

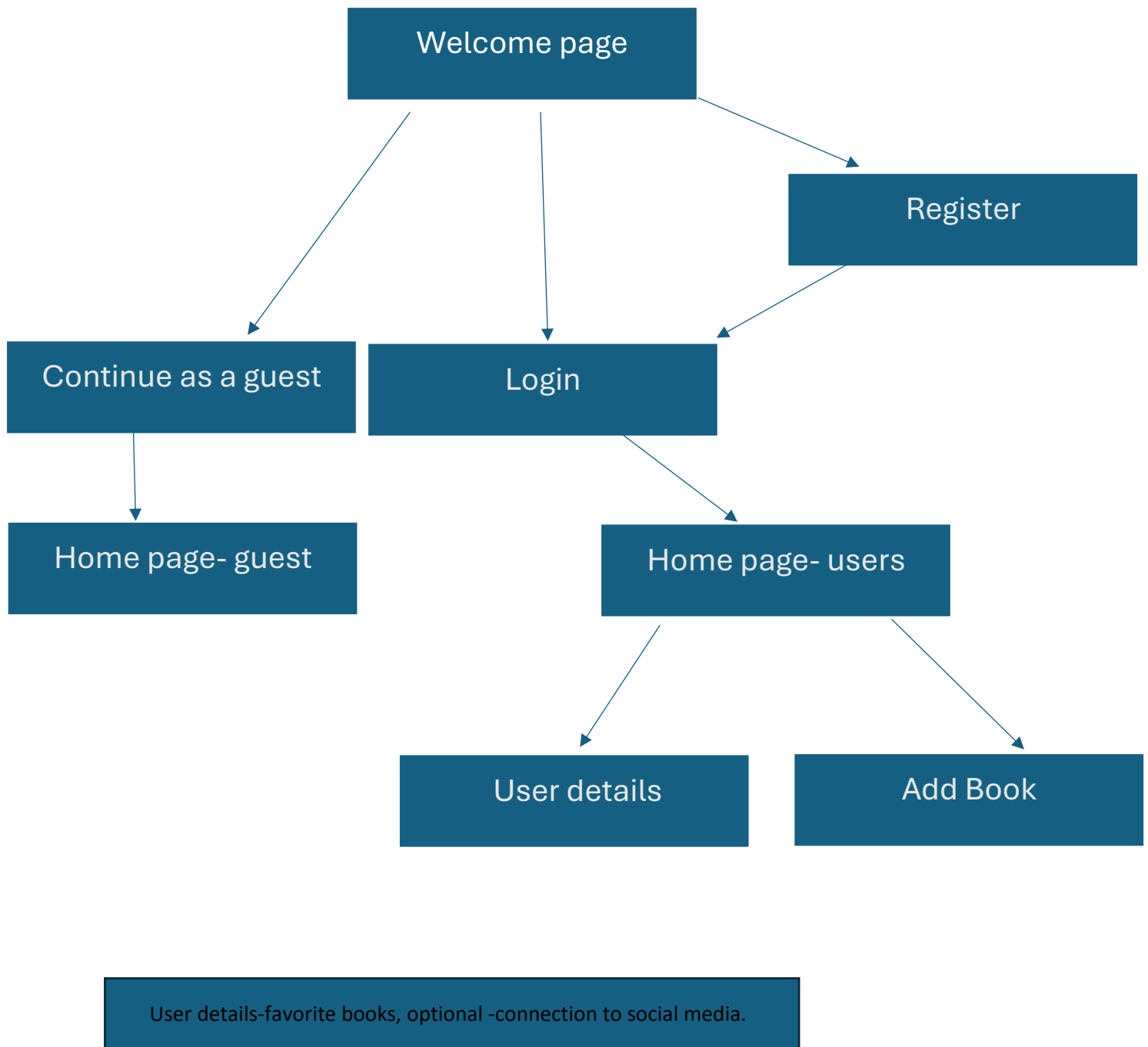
3.3.5.4 Genre.

3.3.6 The website will allow the administrator to delete information from the database and manage the users. (deletion, blocking, etc.) In addition, he will be able to track user reports.

3.3.7 The website will allow the bot to enter new books (by searching the Internet) and it will also analyze and organize the data to create an up-to-date and reliable database. The bot will analyze the information, filter duplicate books, and enter accurate data into the system.

3.3.8 The website will allow the user to see his data such as: favorite books (only for registered users).

### 3.4 Diagram of application activities.



### 3.5 System screens

#### 3.5.1 Welcome page



The screenshot shows the 'Book Finder' welcome page. It features a blue header with the text 'Book Finder'. Below the header, the main content area has a light blue background. In the center, there is a large heading 'Welcome to BookFinder' and a quote: '"I am not afraid of storms, for I am learning how to sail my ship."' At the bottom, there are three dark blue buttons with white text: 'Login', 'Register', and 'Continue as a Guest'.

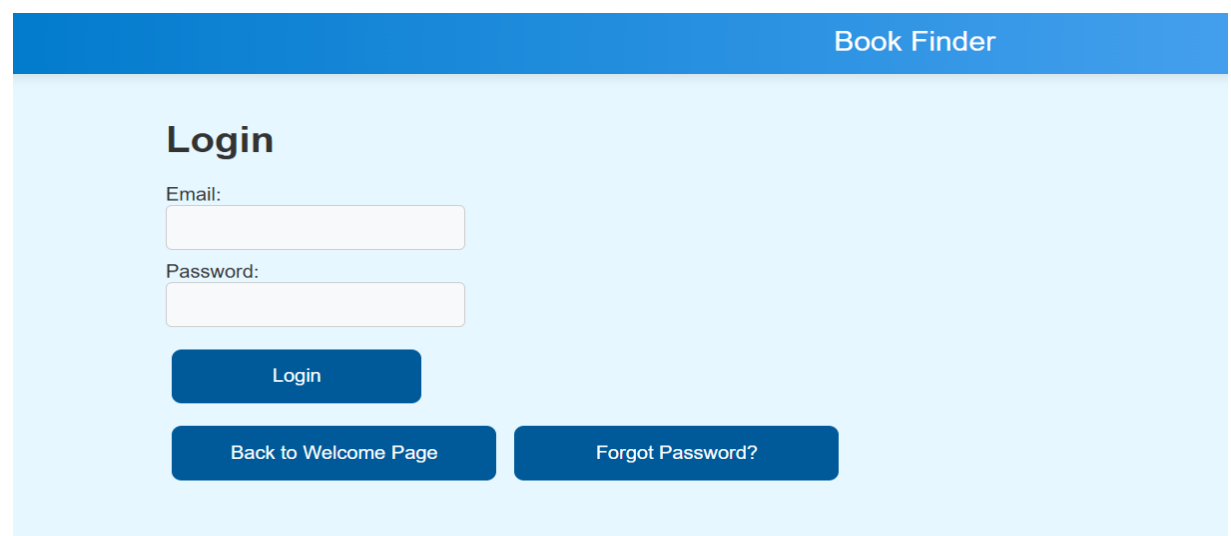
Book Finder

## Welcome to BookFinder

"I am not afraid of storms, for I am learning how to sail my ship."

Login Register Continue as a Guest

#### 3.5.2 Login page



The screenshot shows the 'Book Finder' login page. It features a blue header with the text 'Book Finder'. Below the header, the main content area has a light blue background. On the left side, there is a heading 'Login'. Below it, there are two input fields: 'Email:' and 'Password:'. Below the input fields, there are three dark blue buttons with white text: 'Login', 'Back to Welcome Page', and 'Forgot Password?'.

Book Finder

## Login

Email:

Password:

Login Back to Welcome Page Forgot Password?

### 3.5.3 Register page

Book Finder

## Register

Email:

Password:

Confirm Password:

Register

Back to Welcome Page

### 3.5.4 Forgot Password

Book Finder

## Forgot Password

Enter your email to receive a reset password link:

Email:

Send Reset Link

Back to Login

### 3.5.5 Add a book (Register users only)

Book Finder

## Add a New Book

Title:

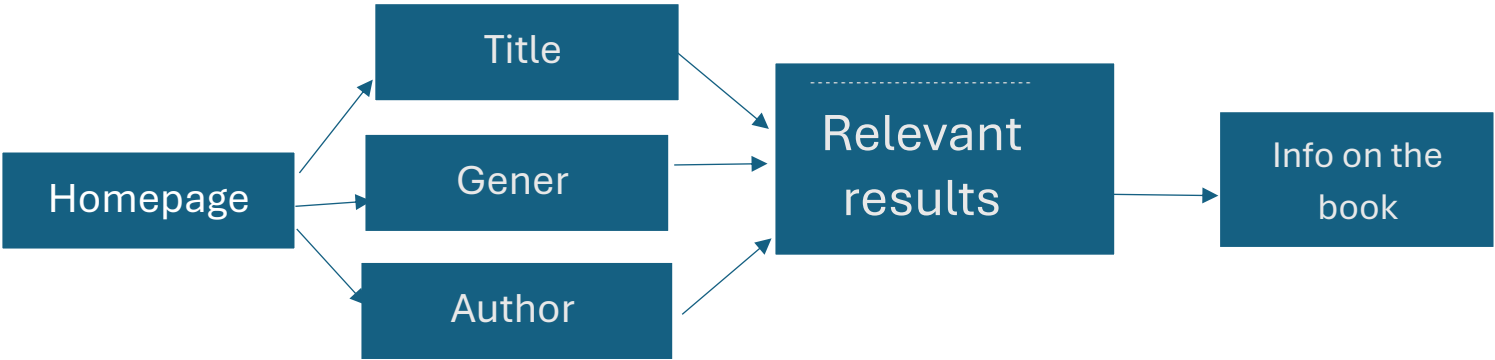
Author:

Description:

Published year:

Language:

3.5.6 Search for a book



Info of the book: book cover, Language, Description, Published Year , etc.

# Welcome to Homepage

Search for a book:  Search

Browse our books, but log in to manage your favorites!

## Books Available:

Title	Author	Genres
<a href="#">Happy for No Reason</a>	Marci Shimoff, Carol Kline	Self-help
<a href="#">I Feel Bad About My Neck</a>	Nora Ephron	Thriller
<a href="#">Broken Glass</a>	Alain Mabanckou	Domestic Fiction
<a href="#">A Little Life</a>	Hanya Yanagihara	Drama
<a href="#">Chronicles: Volume One</a>	Bob Dylan	Biography
<a href="#">The Tipping Point</a>	Malcolm Gladwell	Autobiography
<a href="#">The Siege</a>	Helen Dunmore	Self-help



3.5.7 Reviews (Register users only)

Reviews

yuval36811@gmail.com - Rating: 5/5

Love it!

Posted on: Feb. 14, 2025, 6:20 p.m.

Leave a Review

Rating (1-5):

Your Review:

Submit Review

Back to Home

3.5.8 Favorite Books (Register users only)

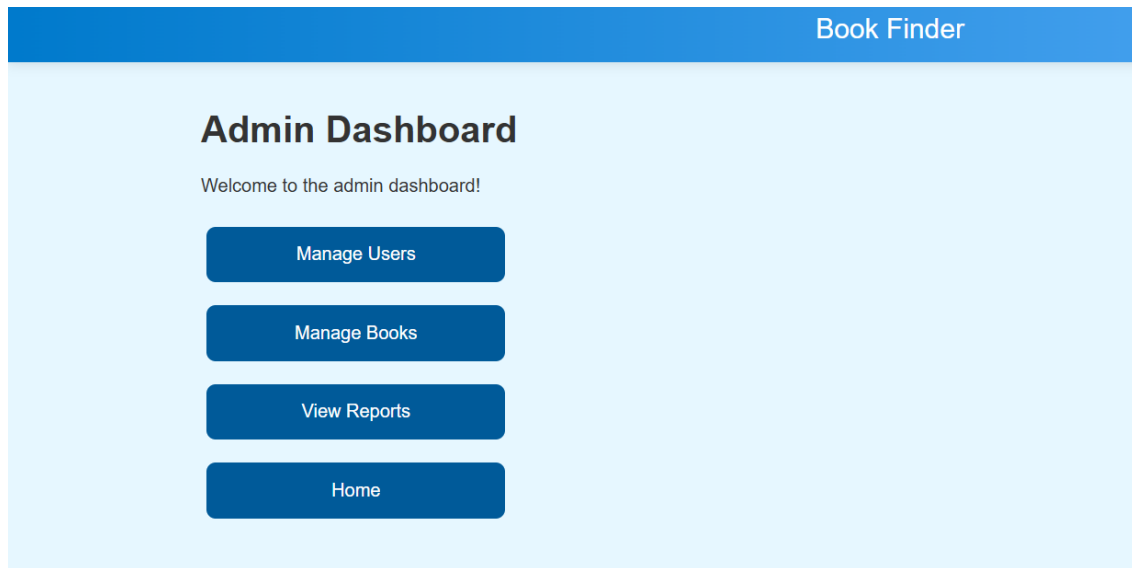
Book Finder

Your Favorite Books

Title	Author	Genres	Action
<a href="#">Happy for No Reason</a>	Marci Shimoff, Carol Kline	Self-help	<div>Remove</div>
<a href="#">The Little Prince</a>	Antoine de Saint-Exupéry	Children's Literature	<div>Remove</div>

Back to Home

### 3.5.9 Admin Dashboard



## 3.6 Database

### 3.6.1 Database Tables

#### 3.6.1.1 Books table

Extra	Default	Key	Null	Type	Field Name
auto_increment	NULL	PRI	NO	int	book_id
	NULL		NO	varchar(255)	title
	NULL		NO	varchar(255)	author
	NULL		YES	text	description
	NULL		YES	year	published_year
	NULL		YES	varchar(50)	language
	NULL		YES	varchar(255)	cover_image_url
	NULL		YES	varchar(50)	original_language
DEFAULT_GENERATED	CURRENT_TIMESTAMP		YES	datetime	created_at

#### 3.6.1.2 Book genres table

Extra	Default	Key	Null	Type	Field Name
	NULL	PRI	NO	int	book_id
	NULL	PRI	NO	int	genre_id

#### 3.6.1.3 Users table

Extra	Default	Key	Null	Type	Field Name
auto_increment	NULL	PRI	NO	int	id
	NULL		NO	varchar(128)	password
	NULL		YES	datetime(6)	last_login
	NULL		NO	tinyint(1)	is_superuser
	NULL	UNI	NO	varchar(150)	username
	NULL		NO	varchar(150)	first_name
	NULL		NO	varchar(150)	last_name
	NULL		NO	varchar(254)	email
	NULL		NO	tinyint(1)	is_staff
	NULL		NO	tinyint(1)	is_active
	NULL		NO	datetime(6)	date_joined

#### 3.6.1.4 Favorite books table

Extra	Default	Key	Null	Type	Field Name
auto_increment	NULL	PRI	NO	bigint	id
	NULL		NO	datetime(6)	added_on
	NULL	MUL	NO	int	book_id
	NULL	MUL	NO	int	user_id

#### 3.6.1.4 Reviews

Extra	Default	Key	Null	Type	Field Name
auto_increment	NULL	PRI	NO	int	review_id
	NULL	MUL	YES	int	book_id
	NULL	MUL	YES	int	user_id
	NULL		YES	text	review_text
	NULL		YES	int	rating
DEFAULT_GENERATED	CURRENT_TIMESTAMP		YES	timestamp	created_at

#### 3.6.1.5 Saving special data

The database will also have the option of saving links to images of the book covers (URL to the image on an external or internal server).

Ability to save genres or categories of books. and information about the availability of the books.

(optional): for example, books that are in stores, public libraries or available online

Optional - option to tag books (for example: "bestseller", "classic book", or "award winner")  
.to facilitate filtering and searching

#### 3.6.1.5 Special values

Book categories: categories by genre (for example: fantasy, novel, children's literature, non-fiction, etc.)

Rating: values from 1 to 5.

Publication year: Publication year format: Saving the publication year in. YYYY format

Format of abstract: The abstract of the book will be kept in short text up to 500 words.

