



**Informatique et systèmes  
de communication ISC**



Haute Ecole d'Ingénierie  
Hochschule für Ingenieurwissenschaften

## **201.2 - Software engineering**

Binder - User Guide

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# **1 Binder**

Binder is a web application project created for the Software Engineering Course in HES-SO Valais-Wallis third ISC semester program.

With Binder, users can effortlessly browse a curated selection of available titles, each accompanied by a brief recommendation, a mini book description, and a personalized fit index to help match readers with their ideal books.

Users have the flexibility to manage their reading choices, including the ability to return books before the booking period ends and access a history of their past bookings. Additionally, users can track their reading statistics on a dedicated stats page.

For administrators, Binder offers comprehensive tools to oversee the book collection. Admins can add, remove, hide, and search for titles, as well as analyze user interactions through detailed statistics for both individual users and the overall book collection.

## **2 Purpose of the document**

This file is meant to new users of the Binder web application.

Through this document, the user will be able to run and use the Binder application.

## **3 Requirements**

- Node.js
- Meteor

## 4 Installation steps

This section is showing how to install necessary applications and modules to work with the web application.

### 4.1 Node.js

#### 4.1.1 Installing from the official website

First, install Node.js from <https://nodejs.org/en/download/>

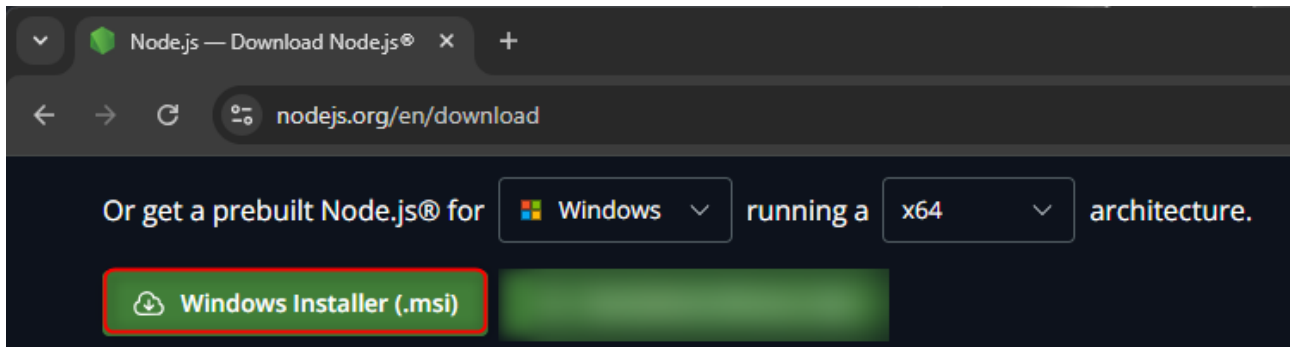


Image 1 : Installing Node.js on Windows

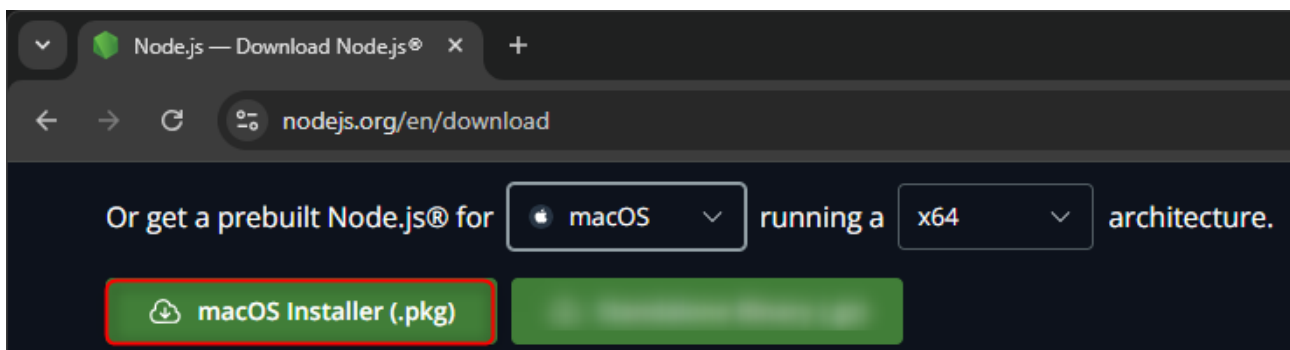


Image 2 : Installing Node.js on macOS

#### 4.1.2 Checking the installation

To check if it is installed correctly, open a terminal, and write **node -v** and **npm -v**.

```
C:\Users\ >node -v
v22.12.0

C:\Users\ >npm -v
10.9.0

C:\Users\ >
```

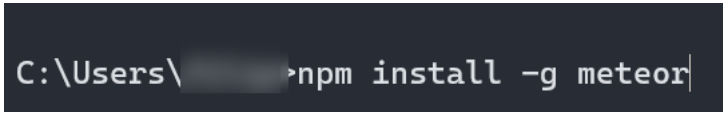
Image 3 : Node.js and npm installation check

If the version appears, it means it is installed correctly.

## 4.2 Meteor

### 4.2.1 Installing through the terminal

To install Meteor, open a terminal, and write **npm install -g meteor**.

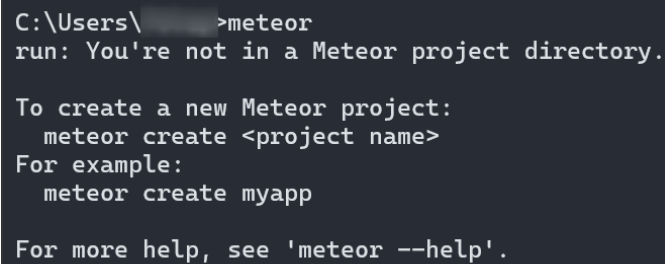


```
C:\Users\ >npm install -g meteor
```

*Image 4 : Installing Meteor through terminal*

### 4.2.2 Checking the installation

If the installation is correct, in terminal the user should be able to enter meteor with the **meteor** command.



```
C:\Users\ >meteor
run: You're not in a Meteor project directory.

To create a new Meteor project:
  meteor create <project name>
For example:
  meteor create myapp

For more help, see 'meteor --help'.
```

*Image 5 : Meteor installation check*

## 4.3 GitHub repository Clone

The next step is to clone the Binder GitHub repository from <https://github.com/NathanAnto/binder-genielogiciel> with the command

**github clone <https://github.com/NathanAnto/binder-genielogiciel>**

## 4.4 Meteor packages installation

To run the application, the user needs to install packages like react-d, @babel/runtime, etc. To do so manually, type **meteor npm install --save package\_name** for each package.

```
D:\201_2\binder-genielogiciel>meteor npm install --save react react-dom
added 351 packages, and audited 460 packages in 26s

52 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
```

Image 6 : Installation of Binder's packages (manually)

Or type **meteor npm install** in the repositories console containing the .git file.

```
D:\201_2\binder-genielogiciel>meteor npm install
> postinstall
> npm run init-db

> init-db
> npx tsx server/initDatabase.ts

Database already exists. Skipping initialization.
To update the database, delete it and run server/initDatabase.ts

added 351 packages, and audited 460 packages in 33s

52 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
```

Image 7 : Installation of Binder's packages (automatically)

## 4.5 Project launch

To launch the project, open a terminal, go to the GitHub repository directory and write **npm start** or **npm start-l** for Linux/macOS users.

```
D:\201_2\binder-genielogiciel>npm start

> start
> set PROJECT_ROOT=%cd% && meteor run --open

[[[[[ ~\D\201_2\binder-genielogiciel ]]]]]

=> Started proxy.
=> Started HMR server.
=> Started MongoDB.
=> Linted your app. No linting errors.
I20250202-11:19:42.210(1)? Connected to the booking_app database:
I20250202-11:19:42.221(1)? D:\201_2\binder-genielogiciel\data\booking_app.db
=> Started your app.

=> App running at: http://localhost:3000/
    Type Control-C twice to stop.
```

Image 8 : Launching meteor project

## 5 User guide

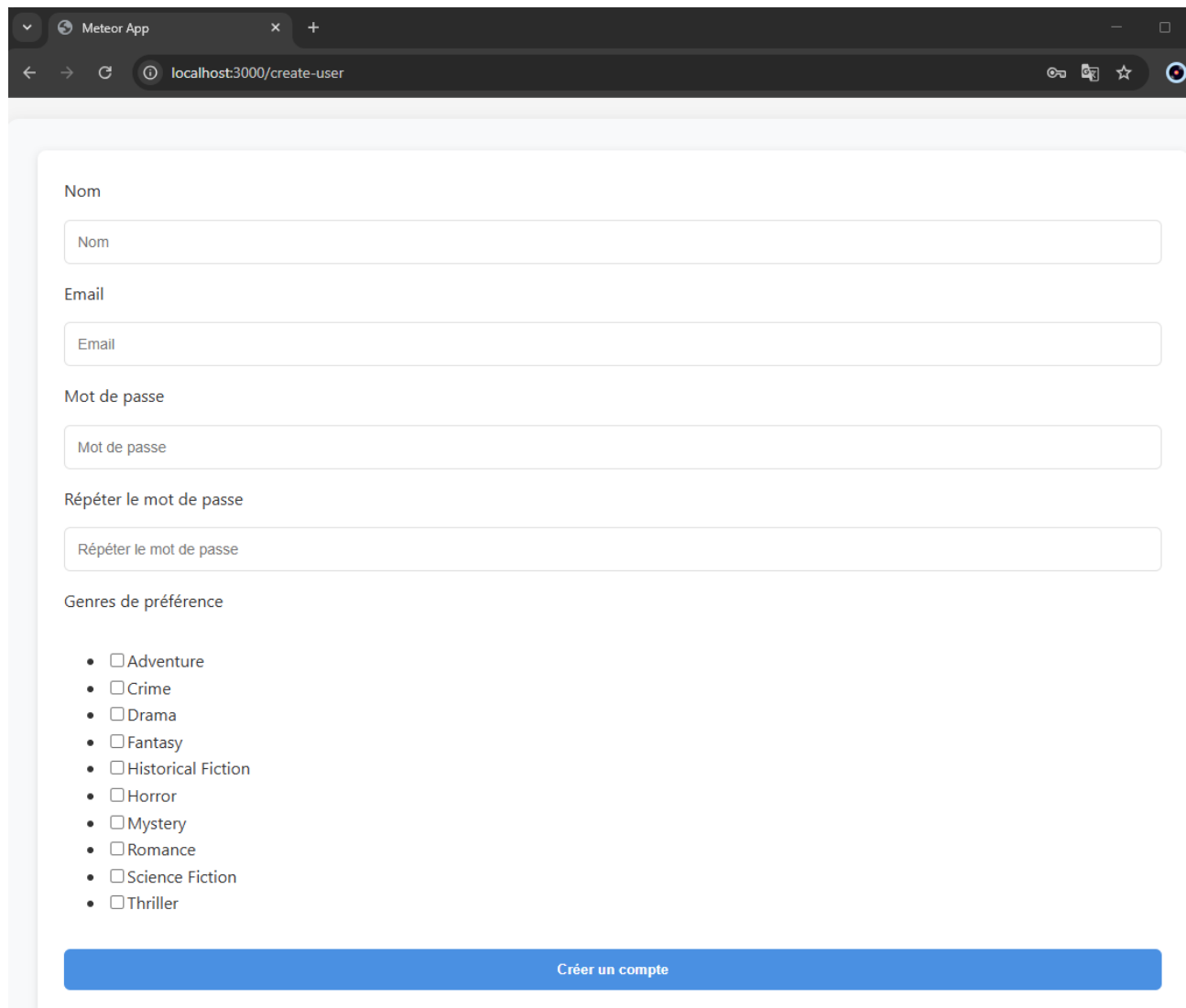
Through this guide, the user will be able to create an account, connect to the application and interact with it.

### 5.1 Access the web page

Open a web browser and type **localhost:3000**.

### 5.2 Registration

To access to the registration page, click on create account and fill the form with your data.



Meteor App

localhost:3000/create-user

Nom

Nom

Email

Email

Mot de passe

Mot de passe

Répéter le mot de passe

Répéter le mot de passe

Genres de préférence

- ☐ Adventure
- ☐ Crime
- ☐ Drama
- ☐ Fantasy
- ☐ Historical Fiction
- ☐ Horror
- ☐ Mystery
- ☐ Romance
- ☐ Science Fiction
- ☐ Thriller

Créer un compte

Image 9 : User creation form

## 5.3 Login

To login to the Binder application, the user can insert the username with the corresponding password.

### 5.3.1 Admin account

Username : Admin

Password : test2

### 5.3.2 User account

Username : Nathan

Password : password

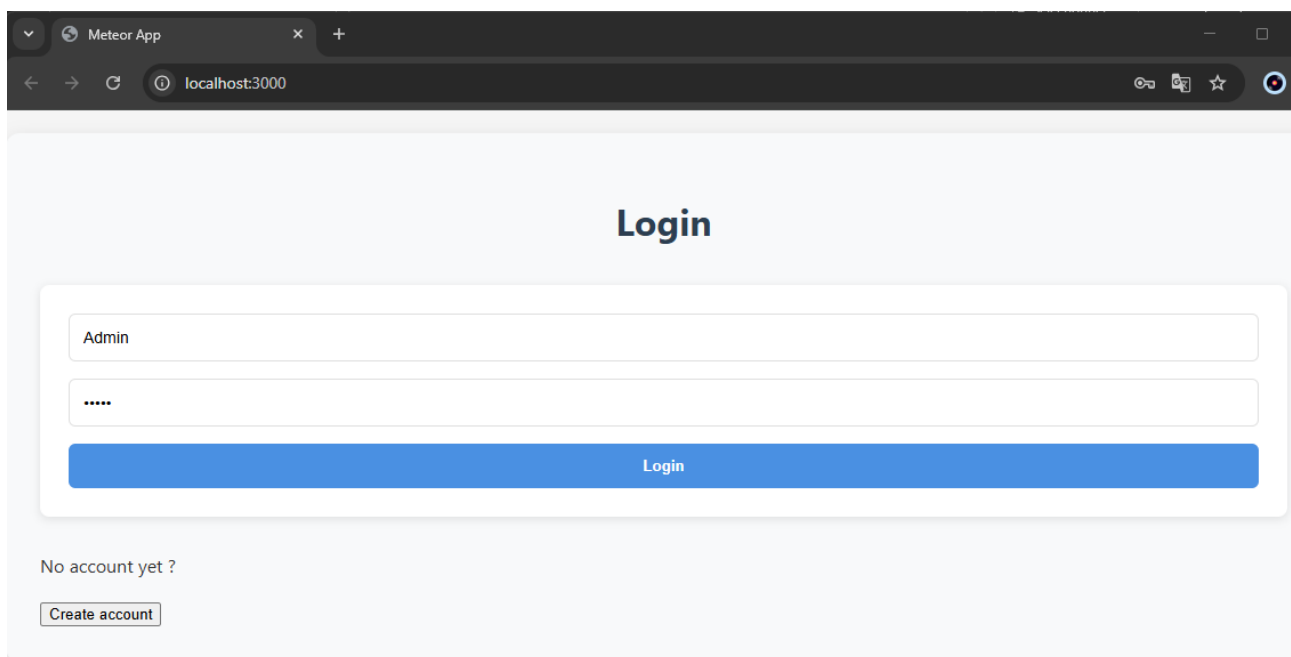


Image 10 : Login page

## 5.4 User interface

The user interface is separated into three parts, the swiping which contains the method to swipe left and right according to the user preferences, the profile, and the bookings that the user has made.

### 5.4.1 Profile

Here, the user is able to logout from the web application.



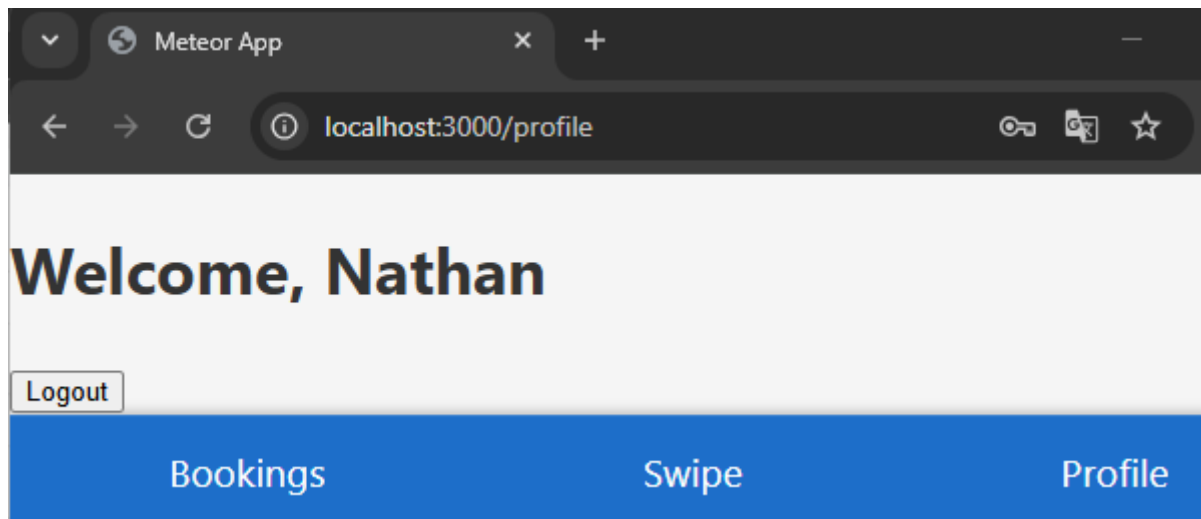


Image 11 : User profile

### 5.4.2 Swipe

The user can swipe from left to right to reserve a book and from right to left to skip it. All books which were reserved can be found in **Bookings**.

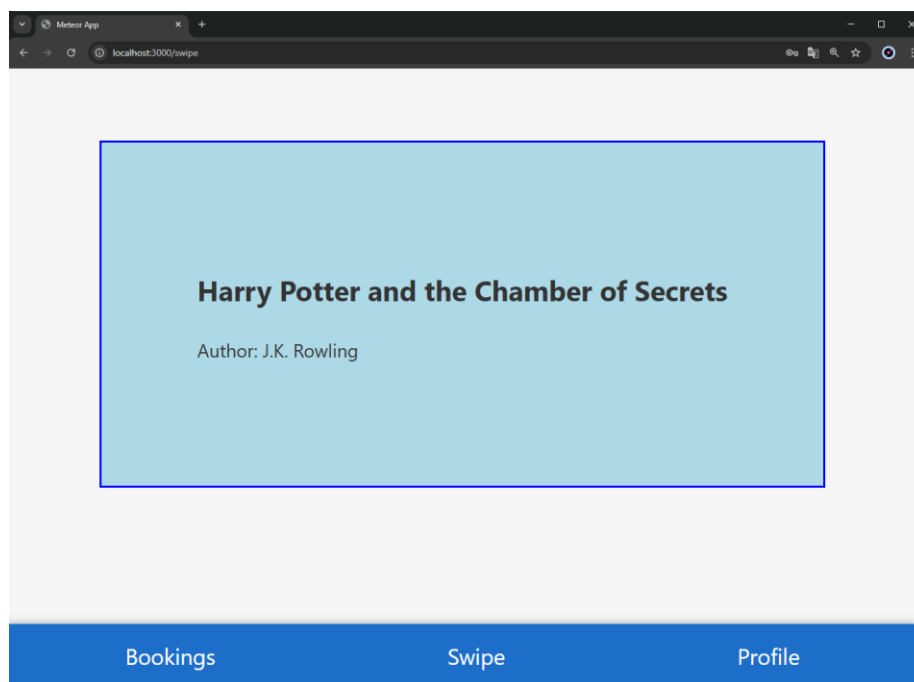


Image 12 : Swipe page

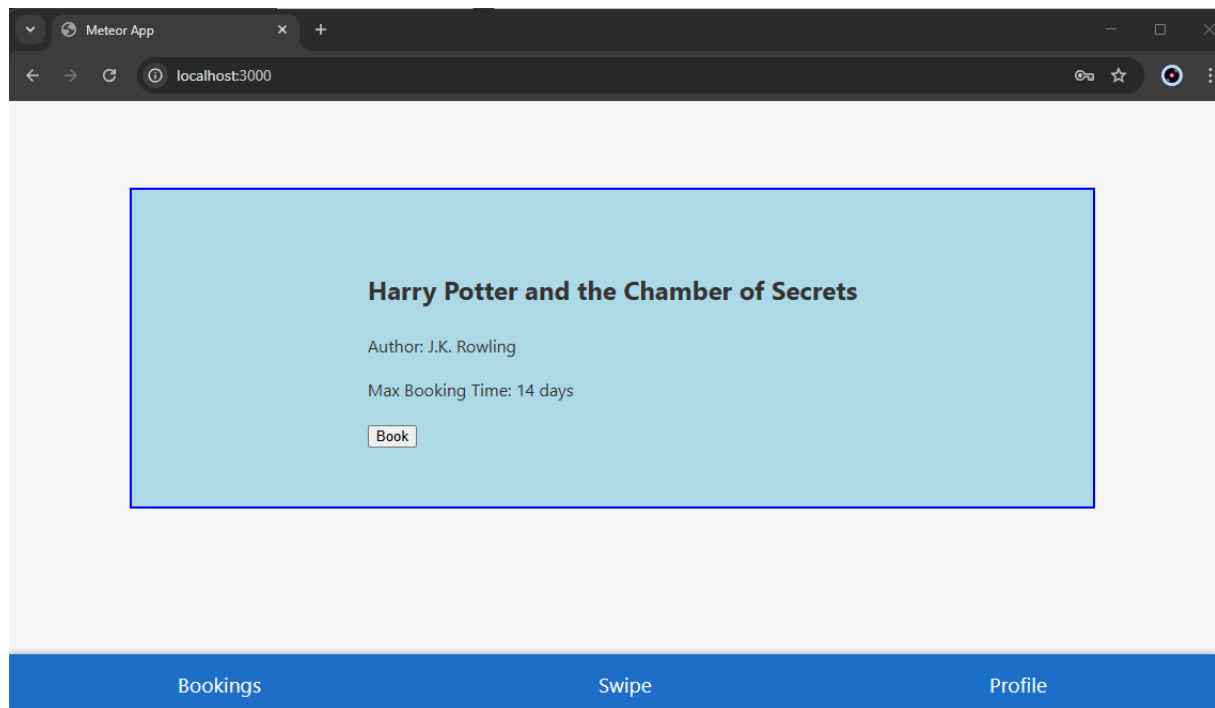


Image 13 : Right-swiping of a book

### 5.4.3 Bookings

Here, the user can find his bookings and extend or return them.

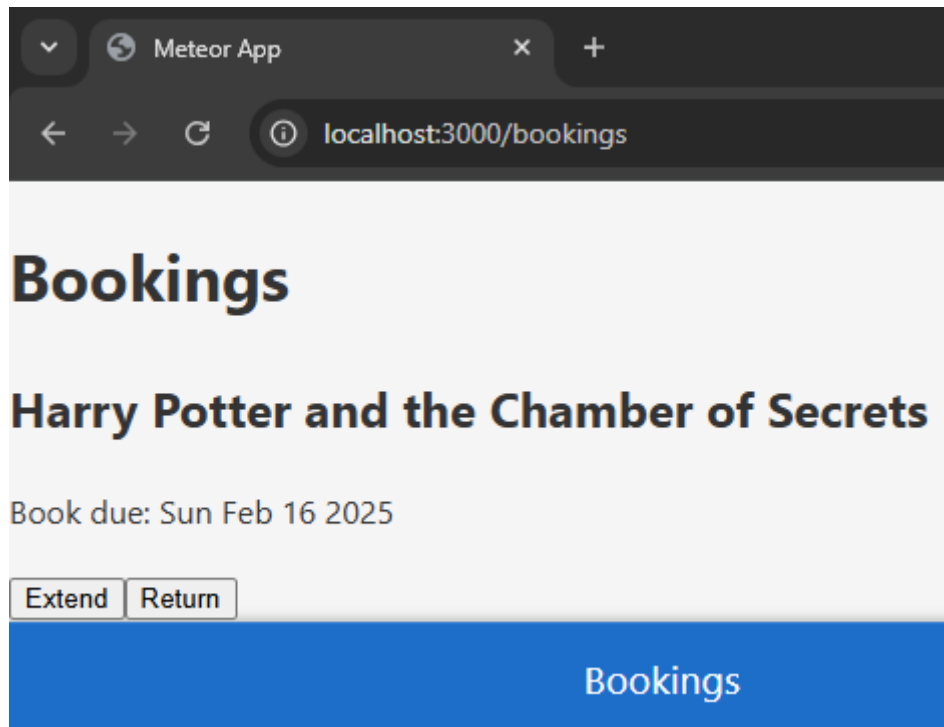


Image 14 : User bookings page

## 6 Admin guide

This guide will demonstrate the main features that an administrator of Binder is able to do.

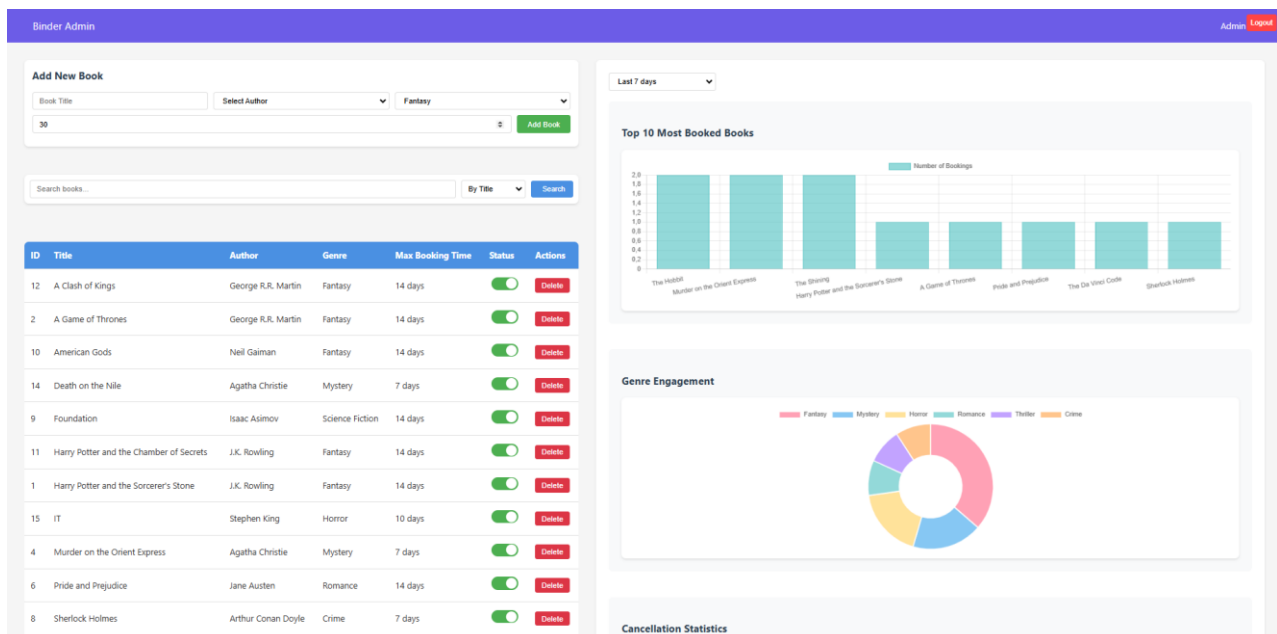
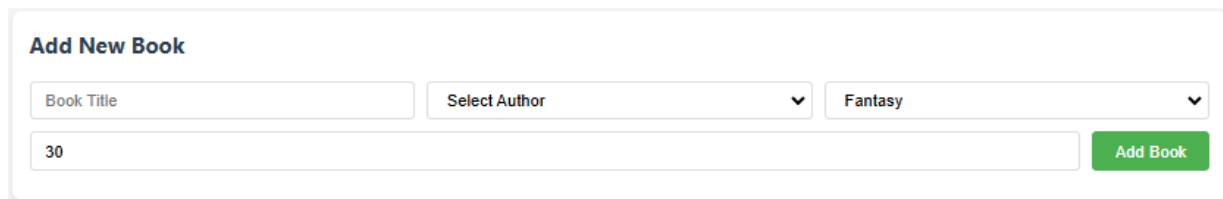


Image 15 : Admin dashboard

## 6.1 Adding books

An administrator can add new books to the database using the following form by inserting the book title, the author, the genre from the list and the maximum booking time.



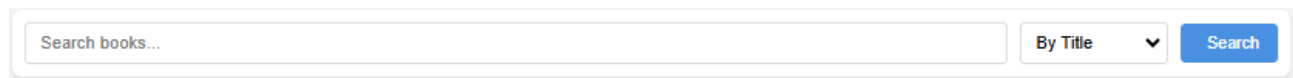
**Add New Book**

Book Title: 30      Select Author:      Fantasy      Add Book

Image 16 : Books adding form

## 6.2 Book research

An administrator can search books based on the title, the author, or the genre with the search box.



Search books...      By Title      Search

## 6.3 Books list

An administrator can see all books with their authors, their genre, the maximum booking time as well as the available status of a book and the delete button to delete a book from the list.

ID	Title	Author	Genre	Max Booking Time	Status	Actions
12	A Clash of Kings	George R.R. Martin	Fantasy	14 days	<input checked="" type="checkbox"/>	Delete
2	A Game of Thrones	George R.R. Martin	Fantasy	14 days	<input type="checkbox"/>	Delete
10	American Gods	Neil Gaiman	Fantasy	14 days	<input type="checkbox"/>	Delete
14	Death on the Nile	Agatha Christie	Mystery	7 days	<input type="checkbox"/>	Delete
9	Foundation	Isaac Asimov	Science Fiction	14 days	<input type="checkbox"/>	Delete
11	Harry Potter and the Chamber of Secrets	J.K. Rowling	Fantasy	14 days	<input type="checkbox"/>	Delete
1	Harry Potter and the Sorcerer's Stone	J.K. Rowling	Fantasy	14 days	<input type="checkbox"/>	Delete
15	IT	Stephen King	Horror	10 days	<input checked="" type="checkbox"/>	Delete

Image 17 : Books list

## 6.4 Statistics dashboard

An administrator has a dashboard with statistics like a graph with the most booked books, the genre engagement, and the number of cancellations to be able to satisfy users with their favorite authors, genres, etc.

### 6.4.1 Most booked books

An administrator can change the time limit like 7 days or all time.

Last 7 days ▼



Image 18 : Most booked books (7 days)

All time ▼

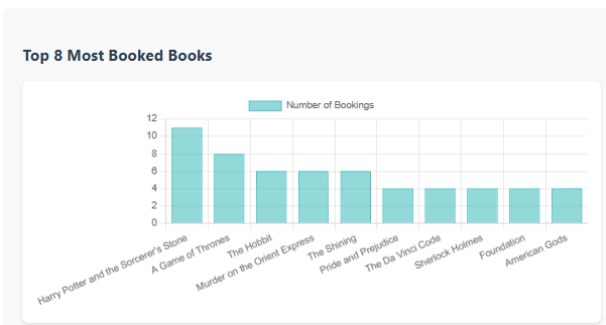


Image 19 : Most booked books (all time)

### 6.4.2 Genre engagement

An administrator can see the genre with the highest engagement rate in a circular graph.

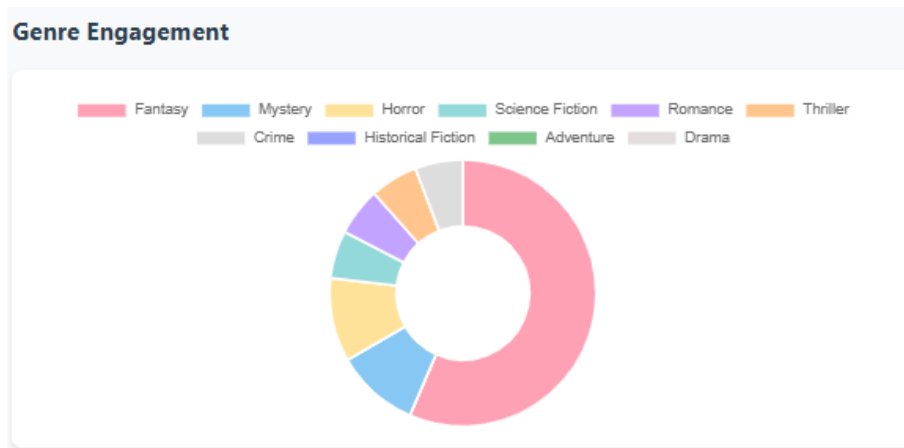


Image 20 : Genre engagement graph

### 6.4.3 Cancellation statistics

This part gives for an administrator the cancellation rate for all the bookings.

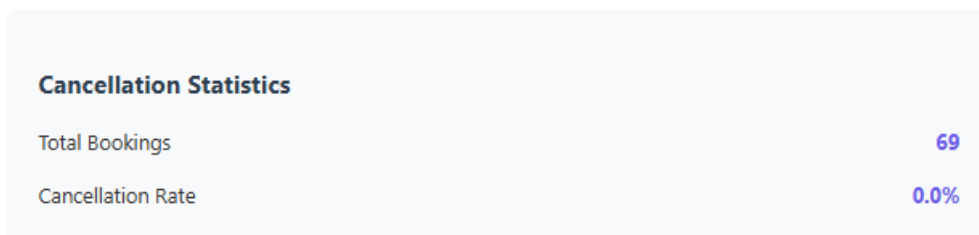


Image 21 : Cancellation rate

## 7 Unit tests

To run unit tests, in the project directory, open the terminal and type.

**npm run test** (Windows)  
**npm run test-l** (macOS, Linux)

```
D:\201_2\binder-genielogiciel>npm run test

> test
> set PROJECT_ROOT=%cd% && meteor test --full-app --driver-package meteortesting:mocha

[[[[[ Tests ]]]]]

=> Started proxy.
=> Started HMR server.
=> Started MongoDB.
=> Linted your app. No linting errors.
I20250203-19:34:59.036(1)?
I20250203-19:34:59.190(1)? -----
I20250203-19:34:59.193(1)? --- RUNNING APP SERVER TESTS ---
I20250203-19:34:59.193(1)? -----
I20250203-19:34:59.194(1)?
I20250203-19:34:59.473(1)?
I20250203-19:34:59.478(1)?
I20250203-19:34:59.490(1)? Connected to the booking_app database.
I20250203-19:34:59.500(1)? Meteor Server Methods
I20250203-19:34:59.503(1)?   ✓ can get all books
I20250203-19:34:59.507(1)?   ✓ can handle errors all books
I20250203-19:34:59.508(1)?   ✓ can get book by ID
I20250203-19:34:59.509(1)?   ✓ can get bookings by user ID
I20250203-19:34:59.513(1)?   ✓ can handle errors book by ID
I20250203-19:34:59.513(1)?   ✓ can get genre by ID
I20250203-19:34:59.515(1)?   ✓ can get all genres
I20250203-19:34:59.516(1)?   ✓ can get user by email
I20250203-19:34:59.516(1)? Binder
I20250203-19:34:59.517(1)?   ✓ package.json has correct name
I20250203-19:34:59.518(1)?   ✓ server is not client
I20250203-19:34:59.518(1)?
I20250203-19:34:59.518(1)? 10 passing (74ms)
I20250203-19:34:59.518(1)?
```

Image 22 : Unit tests

---

## 8 Authors

NathanAnto

mariethoz

VinceCor

UnalKulekci

fylis



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