User Manual

Book Management System

Author: Tim Mailman
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1. Project Overview

The Book Management System is a web service application that allows a user to keep track of books in a database.

1.1. Scope

The user is able to create, read, update and delete books from a database. The user can view fields such as title, author, inventory, and price. The application is built using Java and Spring Boot.

1.2. Benefits and Values

The application allows a retail store or individual to keep inventory of their books. Some benefits of this application include:

- prevent the user from ordering too many books
- view inventory to know when to order more books
- relate fields to one another (see what author wrote what book)
- set and update the price of a book
- remove a book from the database

1.3. Platform Requirements

The application in its current condition requires a user to run it as a java application. Either using a Java Development Kit, or a Java Runtime Environment. The user must also be able to connect and browse the network that the application connects to.

The application also has some administrative features that require the use of a RESTful application such as Postman to make specific calls to the database.

2. Use Cases

What follows is a description of the use-case view of the software architecture. The images that follow are a visual representation of a user of the Book Management System preforming its functions.

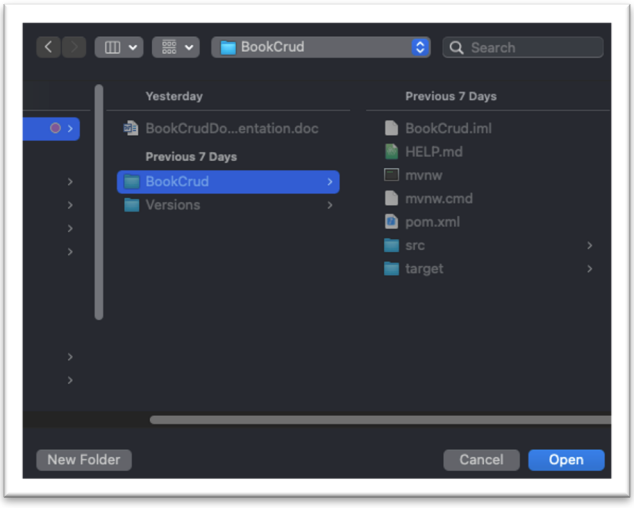
2.1. Run the Application

A user preforming the necessary steps to run and view the application

Preconditions	Platform requirements met
Steps	1. Open runtime/development application 2. With runtime/development application, open 'BookCrud' application 3. Run BookCrudApplication.java 4. Open browser 5. Enter URL 'localhost:8080/' in address bar
Postconditions	Application running

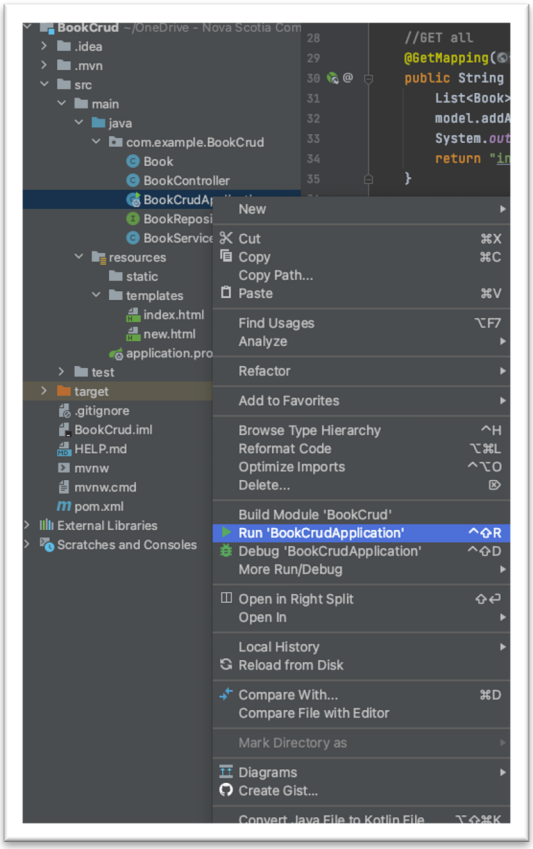
Open runtime/development application

With runtime/development application, open 'BookCrud' application

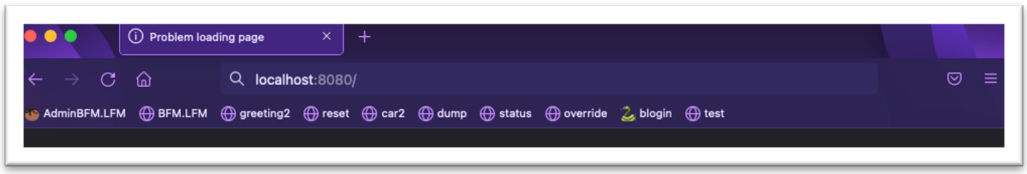


Book Management System

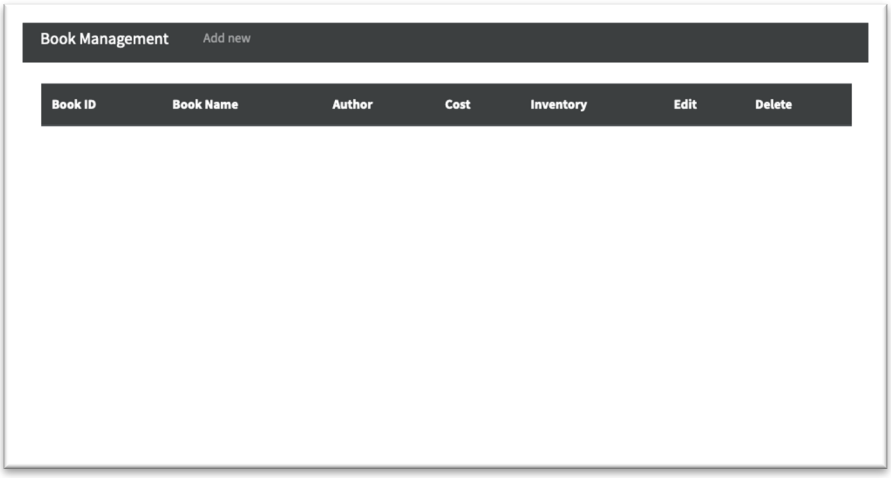
Run BookCrudApplication.java



Open browser



Enter URL 'localhost:8080/' in address bar

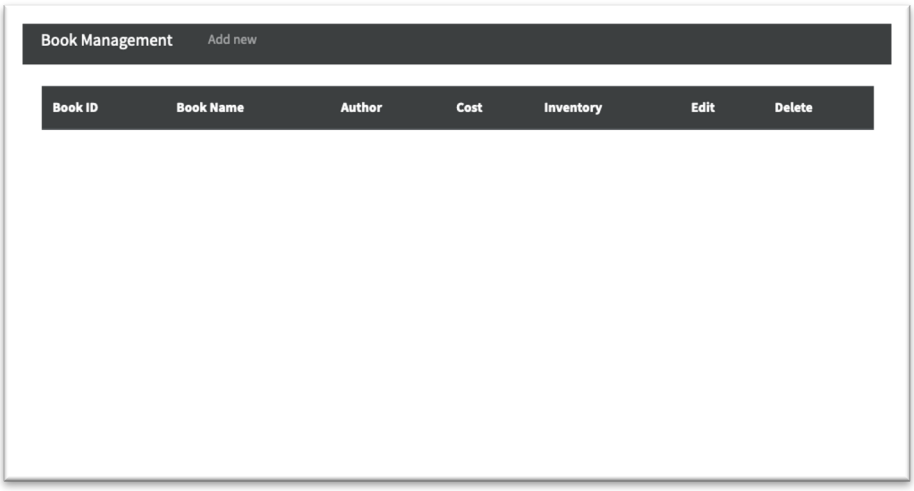


2.2. Create New Book

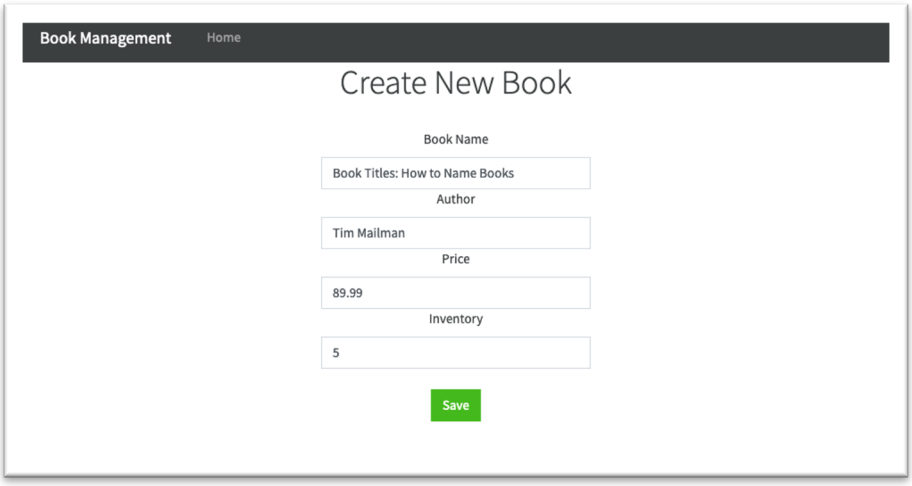
User adds a new book to the application

Preconditions	App Running
Steps	1. User clicks “Add new” 2. User enters respected data into the fields 3. User clicks save
Postconditions	Book entered into app

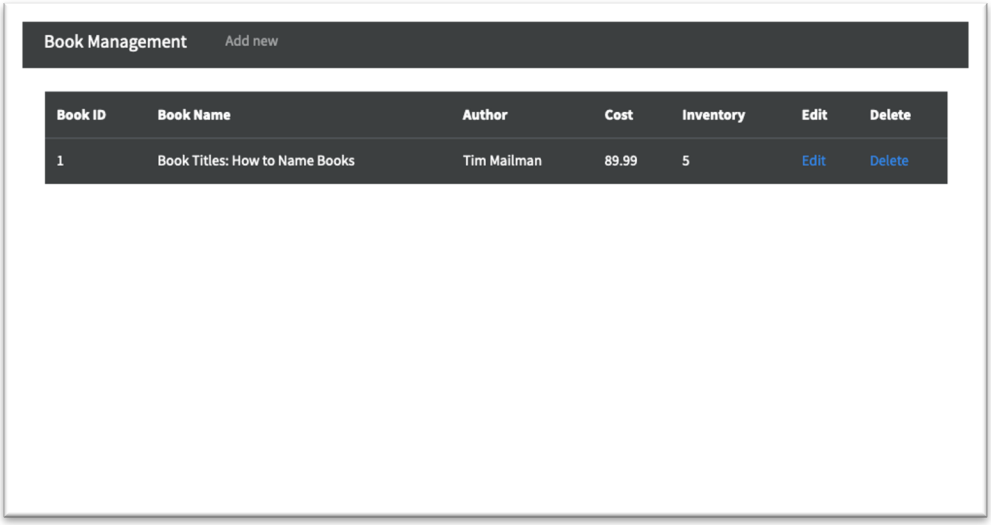
User clicks “Add new”



User enters respected data into the fields



User clicks save

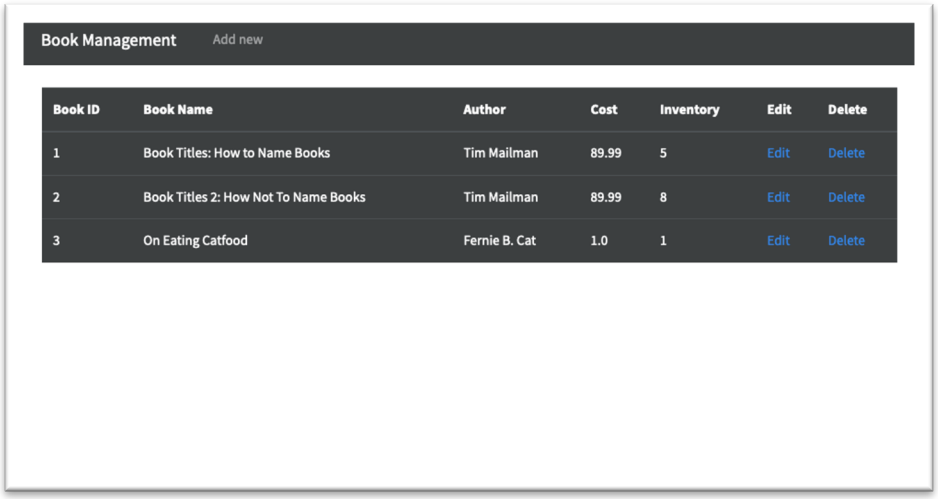


2.3. View Entered Books

User viewing the entered books. This is dependent on the database containing at least 1 book entry. Otherwise, no books will show.

Preconditions	At least 1 book entered
Steps	1. Run the application 2. View fields
Postconditions	Data entered into program

View fields

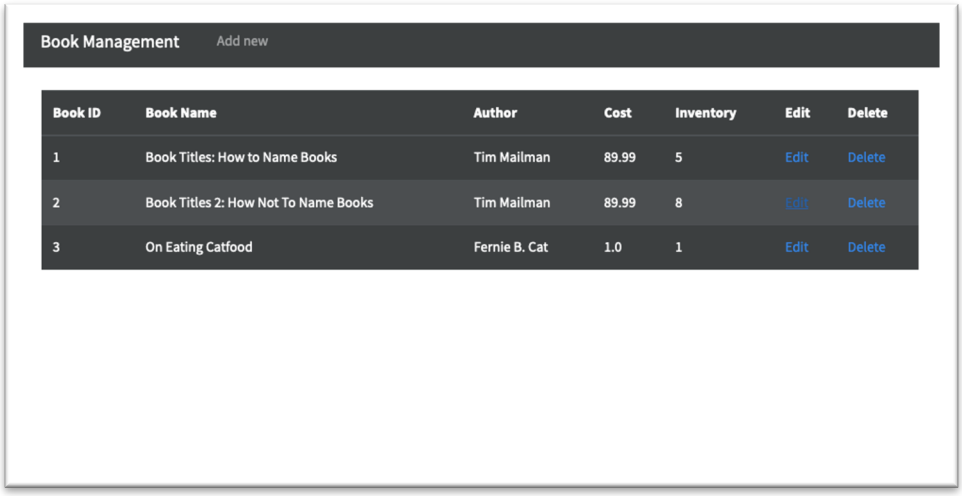


2.4. Use Case Update Book Details

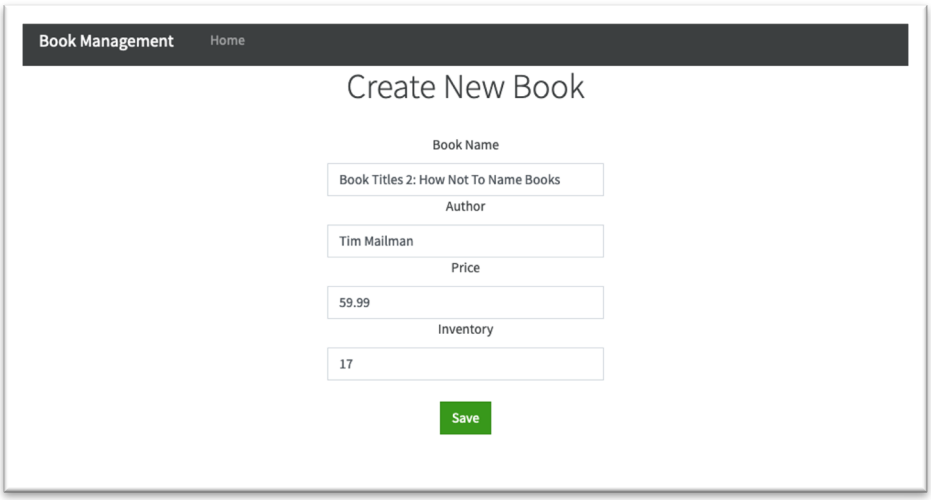
The user can select a book to update. The user may update the book name, author, cost, or inventory of the book.

Use Case Name	Update book
Preconditions	At least 1 book entered
Steps	1. User clicks on 'Edit' for the book row they wish to edit 2. Updates any/all fields they wish to update 3. User clicks the 'Save' button
Postconditions	User updated a book with new information

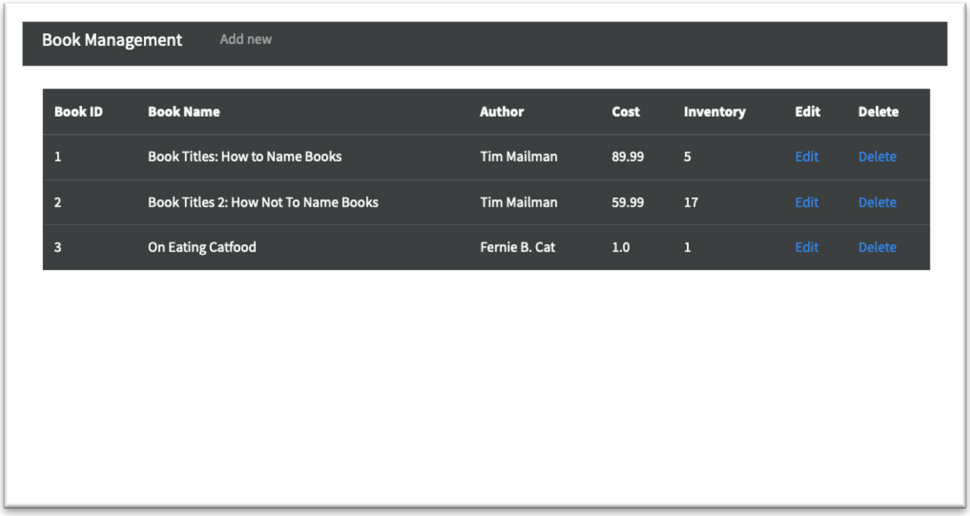
User clicks on 'Edit' for the book row they wish to edit



update any/all fields they wish to update and clicks the green 'Save' button



Row 2 now updated with a new price and inventory count

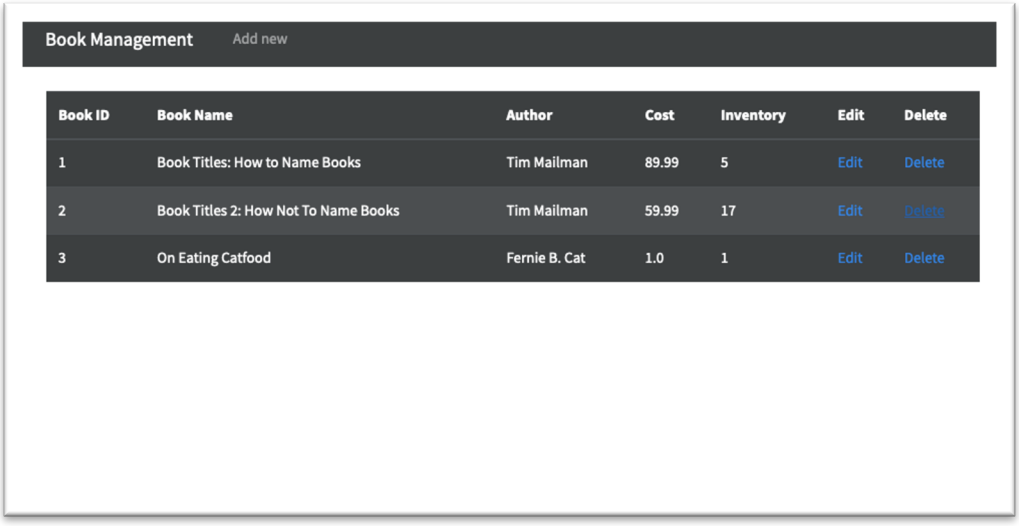


2.5. Deleting a Book

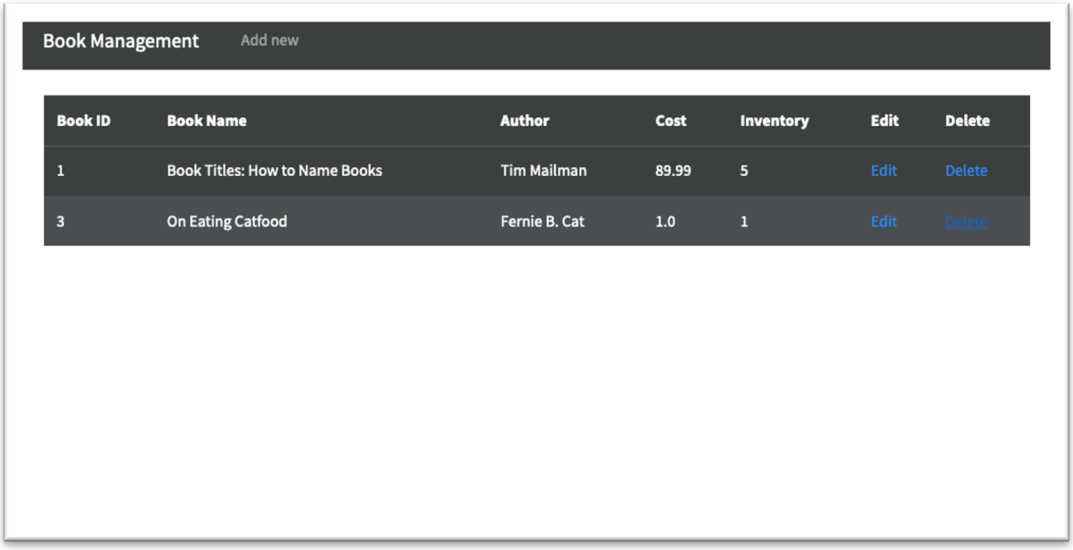
The user chooses a book to remove from the list.

Preconditions	• At least 1 book entered
Steps	1. User clicks ‘Delete’ of the book they wish to remove
Postconditions	Book no longer exists and is not in the list

User clicks ‘Delete’ of the book they wish to remove



Book no longer exists and is not in the list

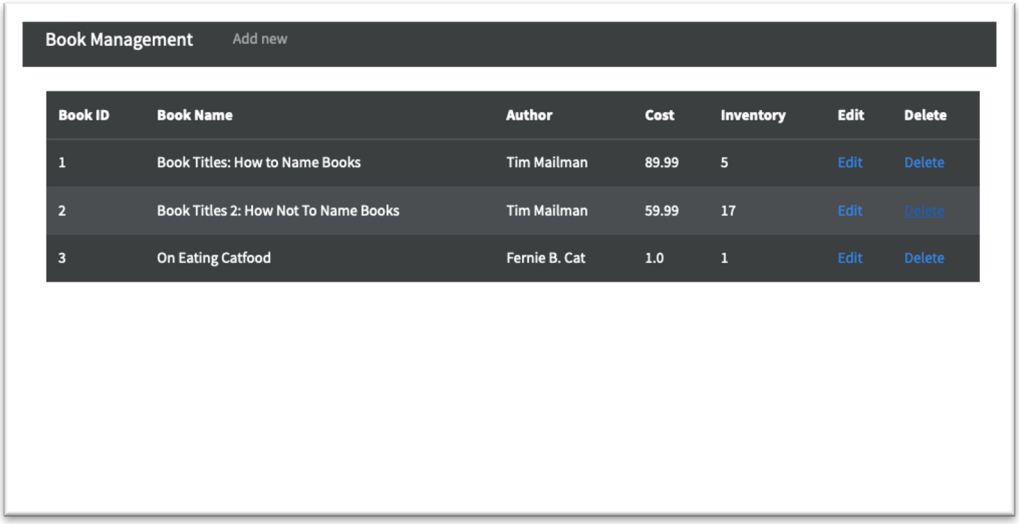


2.6. Administration Delete by ID

Administrator deleting a book record with a DELETE REST request.

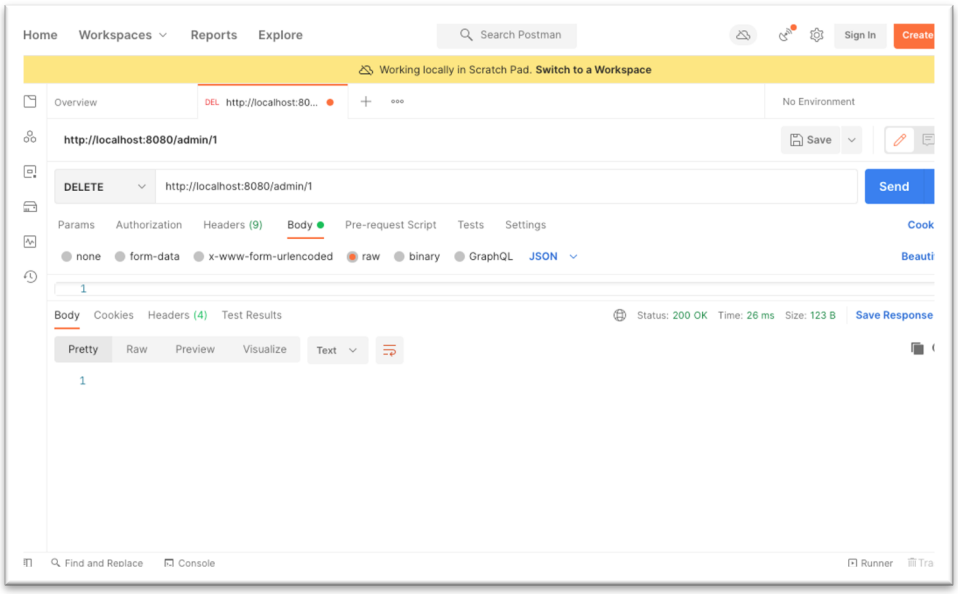
Preconditions	At least 1 book record
Steps	1. Admin enters ID of book to be deleted in URL request (e.g. localhost:8080/admin/1) 2. Sends DELETE request
Postconditions	Book deleted by ID

Admin decides which book to delete

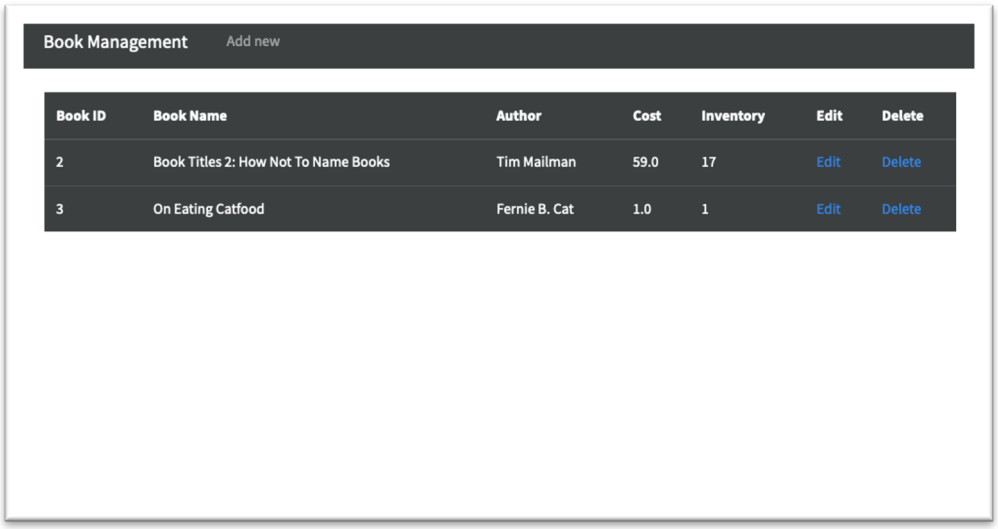


Book Management System

Admin enters ID of book to be deleted in URL request and sends 'DELETE' request



Record now deleted

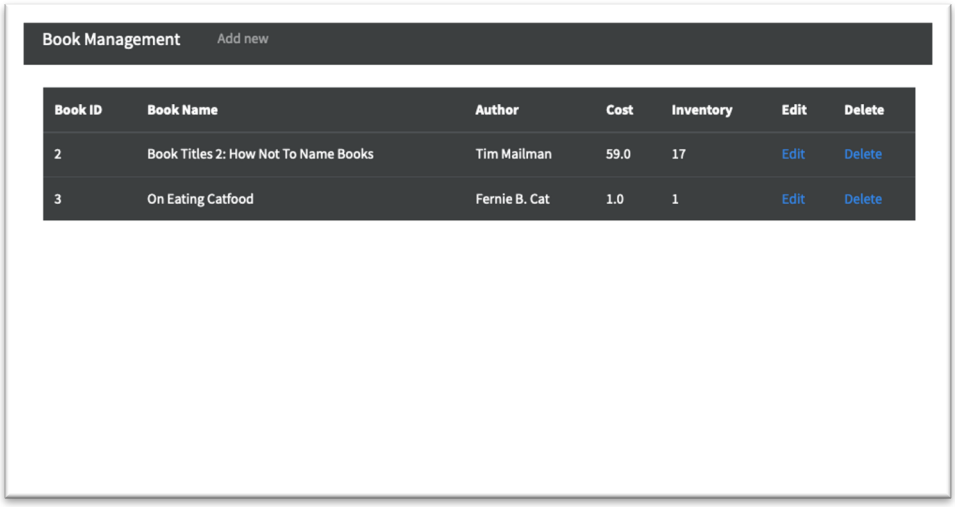


2.7. Administration Delete All Books

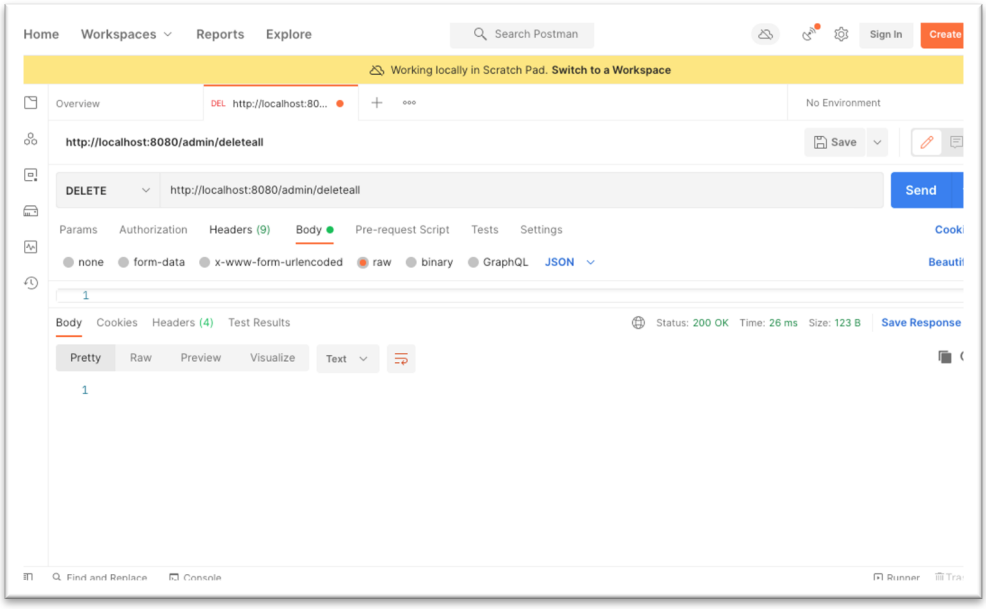
Admin deleting all book records with a DELETE REST request

Preconditions	At least 1 book record
Steps	1. Admin makes a DELETE URL request on the URL map 'deleteall' (e.g. localhost:8080/admin/deleteall)
Postconditions	All book records are deleted

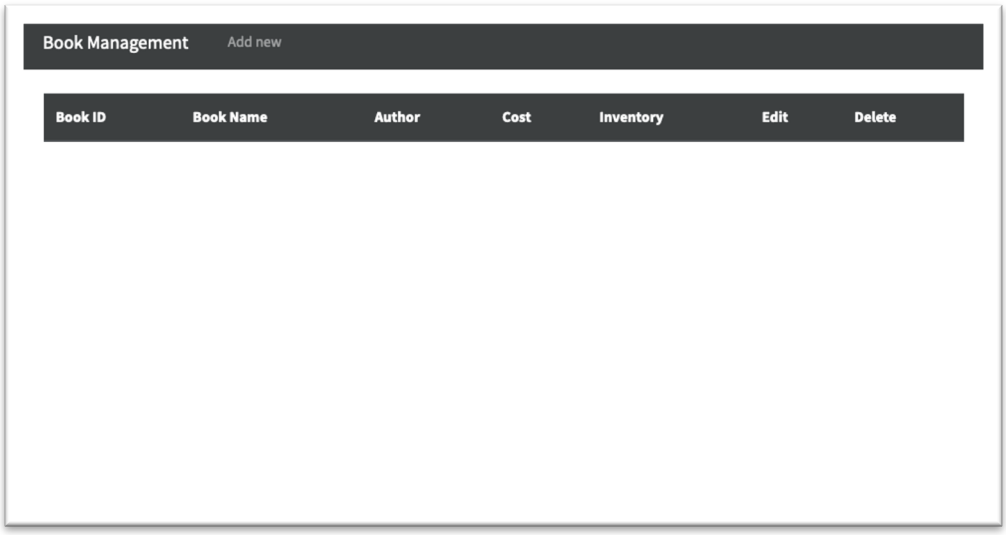
Book Database contains some books



DELETE request to '/admin/deleteall' map



All books removed

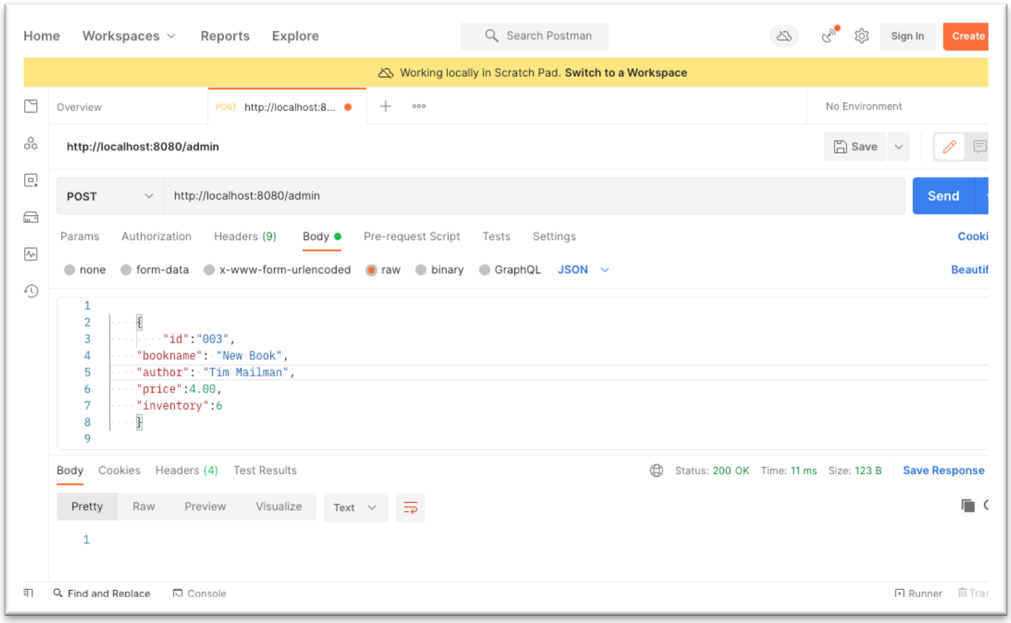


2.8. Administration Post New Book

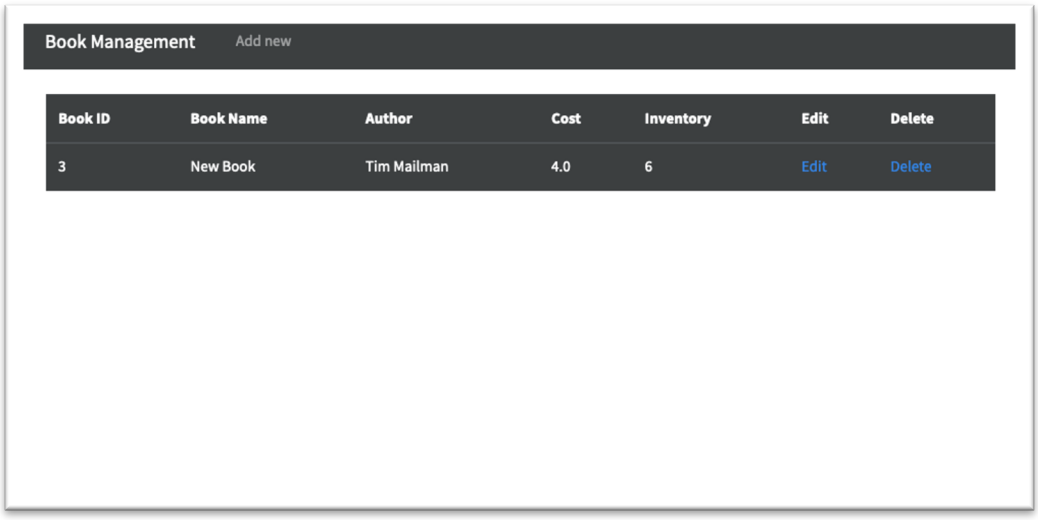
Admin adding a new book with a REST request

Preconditions	Application running
Steps	1. Admin writes in REST controller body of book details 2. Sends POST request
Postconditions	New book entered

Admin writes in REST controller body of book details



New Book entered

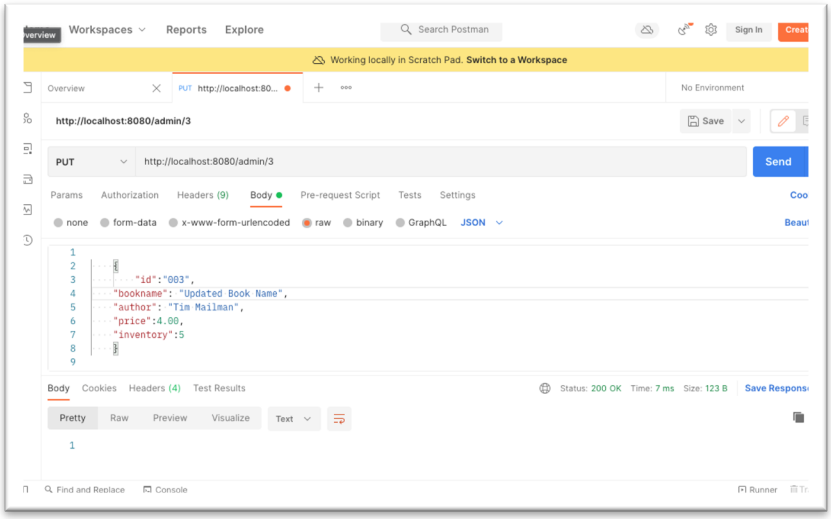


2.9. Administration Update Book

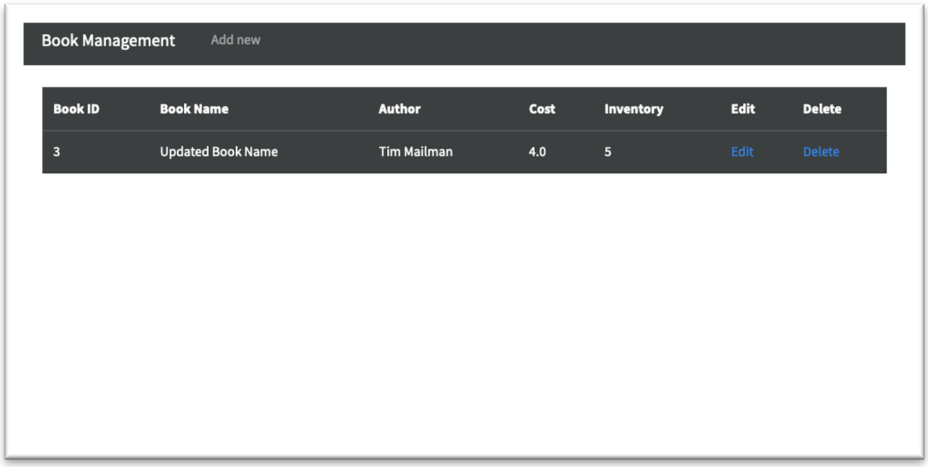
Admin adding a new book with a REST request

Preconditions	At least 1 book entered
Steps	3. Admin writes in REST controller body of book details 4. Sends PUT request
Postconditions	Book updated

Admin writes in REST controller body of book details



Updated result

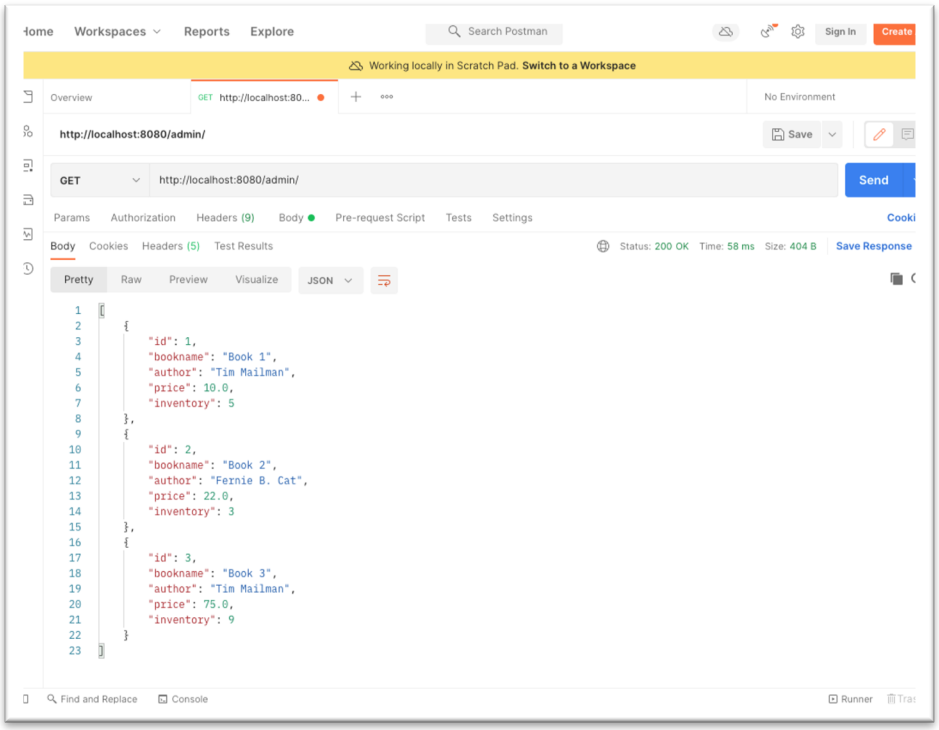


2.10. Administration Get All Books

Admin adding a new book with a REST request

Preconditions	At least 1 book entered
Steps	1. Admin sends GET request to URL(e.g. localhost:8080/admin)
Postconditions	All books in database displayed

Administrator getting all content in database



2.11. Administration Getting One Book By ID

Admin adding a new book with a REST request

Preconditions	At least 1 book entered
Steps	1. Admin sends GET request to URL(e.g. localhost:8080/admin/2)
Postconditions	Book with specified ID is displayed

Administrator getting a Book with the ID of '2'