

## Introduction



Welcome to "Efficient Inventory Management System: A Real-time Spring Boot Project." This book is designed to be your comprehensive guide to developing a cutting-edge inventory management system using the powerful and versatile Spring Boot framework. Whether you are a seasoned developer, a tech enthusiast, or a business professional looking to optimize your organization's inventory processes, this book will equip you with the knowledge and skills needed to create a reliable and scalable solution.

# **Objective**



Development of Book inventory Management Portal -The portal is designed to address the challenges associated with manual bookkeeping, offering a comprehensive solution that caters to the specific needs of book-related businesses, libraries, and educational institutions.

### **Database Schema:**

#### ▼ ER Diagram

https://prod-files-secure.s3.us-west-2.amazonaws.com/31282dbc-a 6a3-454c-930f-bedcf45363ec/ee369a4c-1b25-4f4c-9f25-8d7c002 6c008/BookInventoryManagement.pdf

#### ▼ MySQL Script file

createBOOK.sql
table\_wise.sql

# **REST API Design:**

All REST API requests and responses follow the JSON format. The project employs standard HTTP status codes (200, 201, 400, 404, 401, 500, 505) appropriately in response objects to convey the outcome of API requests.

## **Http Status Code:**

HTTP Status Code	Error Response
400	Bad Request
401	Unauthorized
404	Not Found
500	Internal Server Error
505	HTTP Version Not Supported

# Working with GitHub:

#### **▼** Create a New Repository on GitHub:

- Log in to your GitHub account.
- Click on the "+" icon in the top right corner and select "New repository."
- Provide a name, description, and other relevant details.

#### **▼** Fork the Repository:

- Go to the GitHub page of the repository you want to contribute to.
- Click on the "Fork" button in the upper right corner of the page.

#### **▼** Clone Your Forked Repository:

Clone your forked repository to your local machine.

git clone https://github.com/your-username/repository.git

#### ▼ Make Changes, Commit, and Push:

- Make the necessary changes to the code.
- Stage and commit your changes.

```
git add .
git commit -m "Your descriptive commit message"
git push
```

#### **▼** Create a Pull Request:

- Go to the GitHub page of your forked repository.
- Switch to the branch you just pushed.
- Click on the "New Pull Request" button.

#### **▼** Review and Merge:

- Describe your changes and submit the pull request.
- The repository owner or maintainers will review your changes.

#### **▼** Update Your Fork (Optional):

To keep your fork up-to-date with the original repository, fetch and merge changes.

```
git fetch upstream
git merge upstream/main
```

# **Endpoints**

### **Endpoints**

Aa Endpoint	<pre>% HTTP Verb/Method</pre>	= Description	≡ SuccessResponse	= Errorresponse
_ /api/author/ post _	POST	Add new Author object in DB	{   "code":   "POSTSUCCESS",   "message": "Author   added successfully" }	{   "code": ADDFAILS",  "message":Author already exist" }
_ /api/author/{ authorId} _	GET	Get author object with given Author ID	Author object	
_ /api/author/f irstname/{fir stname}	GET	Get author with given first name	Author object	
_ /api/author/l astname/{la stname}	GET	Get author with given last name	Author object	
_	PUT	Update first		

Aa Endpoint	<pre>% HTTP Verb/Method</pre>	■ Description	≡ SuccessResponse	= Errorresponse
/api/author/ update/first name/{auth orld}		name for the given Author ID		
_ /api/author/ update/lastn ame/{author ld}	PUT	Update last name for the given Author ID		
_ /api/author/ books/{auth orld} _	GET	Get all books of an author	{Books}	
– <u>/api/publish</u> er/post –	POST	Add new publisher object	{   "code":   "POSTSUCCESS",   "message":   "Publisher added   successfully" }	{   "code": ADDFAILS",   "message":Publ er already exist" }
– <u>/api/publish</u> ers –	GET	Get all publishers	{Publisher}	
_ /api/publish er/{publishe rld}	GET	Get publisher object with given ID	Publisher	
_ <u>/api/publish</u> er/name/{na	GET	Get publisher object with given	Publisher	

	& HTTP		=	=
Aa Endpoint	Verb/Method	<b>■</b> Description	SuccessResponse	Errorresponse
<u>me}</u>		name		
_ /api/publish er/city/{city}	GET	Get all publishers in a city	{Publisher}	
_ /api/publish er/update/st ate/{publish erld}	GET	Get all publishers with given state name	{Publisher}	
_ /api/publish er/update/ci ty/{publisher ld}	PUT	Update the publisher's name with given id		
- /api/publish er/update/n ame/{publis herld}	PUT	Update the publisher's city with given id		
- /api/publish er/state/{sta te} -	PUT	Update the publisher's state with given state		
<u>Untitled</u>				
/api/book/p ost	POST	Add new Book object in DB	{ "code": "POSTSUCCESS",	{   "code": ADDFAILS",

Aa Endpoint	<pre>% HTTP Verb/Method</pre>	<b>■</b> Description	SuccessResponse "message": "Book	Errorresponse
			added successfully" }	already exist"
/api/books/	GET	Get all book object	{Books}	
/api/book/{is bn}	GET	Get Book Object	Book	
/api/book/titl e/{title}	GET	Get Book Object with title	Book	
/api/book/ca tegory/{cate gory}	GET	Get Books of given category	{Books}	
/api/book/p ublisher/{pu blisherId}	GET	Get Books published by a publisher	{Books}	
/api/book/u pdate/title/{i sbn}	PUT	Update title of Book object with given ISBN		
Update title of Book object with given ISBN	PUT	Update description of Book object with given ISBN		
/api/book/u pdate/categ ory/{isbn}	PUT	Update category of Book object with given ISBN		
/api/book/u pdate/editio n/{isbn}	PUT	Update edition of Book object with given ISBN		

	& HTTP		=	=
Aa Endpoint	Verb/Method	■ Description	SuccessResponse	Errorresponse
/api/book/u pdate/publis her/{isbn}	PUT	Update publisher Object of Book object with given ISBN		
<u>AUTH</u>				
₩ <u>New</u> <u>Endpoint</u>				
₩ <u>New</u> Endpoint				
<u>Code</u>				
/api/state/po st	POST	Add new state object	{   "code":   "POSTSUCCESS",   "message": "State   added successfully" }	{   "code": ADDFAILS",   "message":State already exist" }
<u>/api/states</u>	GET	Get all states	{State}	
_ /api/state/up date/name/{ stateId}	GET	Get state with given state ID	State	
_ /api/state/{s tateId} _	PUT	Update state's name with given state ID		
_ <u>/api/reviewe</u> <u>r/post</u> _	POST	Add new reviewer object	{ "code": "POSTSUCCESS", "message": "Reviewer added successfully" }	{   "code": ADDFAILS",   "message":Review er already exist" }

Aα Endpoint	<pre>% HTTP Verb/Method</pre>	<b>■</b> Description	= SuccessResponse	= Errorresponse
_ /api/reviewe r/employedb y/{reviewerl d}	GET	Get reviewer with given id	Reviewer	
_ /api/reviewe r/name/{revi ewerld}	PUT	Update first name with given Id		
_ /api/reviewe r/{reviewerl d}	PUT	Update employedby with given Id		
_ /api/user/po st _	POST	Add new user object	{   "code":   "POSTSUCCESS",   "message": "User   added successfully" }	{   "code":   ADDFAILS",   "message":User   already exist" }
_ /api/user/{u serId}	GET	Get user with given id	User	
_ /api/user/up date/phonen umber/{user ld}	PUT	Update first name with given Id		
_ /api/user/up	PUT	Update last name with		

Aa Endpoint	<pre>% HTTP Verb/Method</pre>	□ Description	= SuccessResponse	= Errorresponse
date/lastna me/{userId}	versymetriou	given ld		
_ /api/user/up date/firstna me/{userId}	PUT	Update phone number with given Id		
_ /api/bookrev iew/post _	POST	Add new book review object	{ "code": "POSTSUCCESS", "message": "Book Reviewer added successfully" }	{   "code": ADDFAILS",   "message":Book Reviewer already exist" }
/api/bookrev iew/{isbn}	GET	Get book review with given id	Book Review	
_ /api/bookrev iew/update/r ating/{isbn}	PUT	Update rating with given Id		
_ /api/bookrev iew/update/ comments/{i sbn}.	PUT	Update comments with given Id		
_ <u>/api/inventor</u> <u>y/post</u> _	POST	Add new inventory object	{   "code":   "POSTSUCCESS",   "message":   "Inventory added   successfully" }	{   "code": ADDFAILS",  "message":Invento ry already exist" }

Aa Endpoint	<pre>% HTTP Verb/Method</pre>	<b>=</b> Description	≡ SuccessResponse	= Errorresponse
_ /api/inventor y/update/pu rchased/{inv entoryId}	GET	Get Inventory with given id	Inventory	
_ /api/inventor y/{inventoryl d}	PUT	Update purchased with given Id		
_ /api/bookco ndition/post _	POST	Add new book condition object	{ "code": "POSTSUCCESS", "message": "Book Condition added successfully" }	{   "code": ADDFAILS",   "message":Book condition already exist" }
_ /api/bookco ndition/upda te/price/{ran ks}	GET	Get book condition with given ranks	Book condition	
_ /api/bookco ndition/upda te/fullDescri ption/{ranks }	PUT	Update description with given ranks		
_ /api/bookco ndition/upda te/descriptio	PUT	Update full description with		

Aa Endpoint	<pre>% HTTP Verb/Method</pre>	■ Description	<b>=</b> SuccessResponse	= Errorresponse
n/{ranks}		given ranks		
_ /api/bookco ndition/{ran ks}	PUT	Update price with given ranks		
_ <u>/api/categor</u> <u>y/post</u> _	POST	Add new category object	String: category added successfully	
- /api/categor y/update/de scription/{ca tld}	GET	Get category with given id	Category	
_ <u>/api/categor</u> <u>y/{catId}</u> _	PUT	Update description with given Id	Category	
_ /api/shoppin gcart/post _	POST	Add new shopping cart object	String: Shopping cart added successfully	
/api/ shoppingcar t /{userId}	GET	Get cart with given id	Shopping cart	
/api/ shoppingcar t /update/isbn /{userId}	PUT	Update isbn with given Id	Shopping cart	

Aa Endpoint	<pre>% HTTP Verb/Method</pre>	<b>■</b> Description	<b>≡</b> SuccessResponse	= Errorresponse
_ /api/purchas elog/post _	POST	Add new purchaselog object	String: Purchase Log added successfully	
_ /api/purchas elog/{userId }.	GET	Get purchase log for the given userid	Purchase Log	
_ /api/purchas elog/update/ inventoryid/{ userId}	PUT	Update inventory ld of purchase log given user id	Purchase log	
_ <u>/api/permrol</u> <u>e/post</u> _	POST	Add new permrole object	{   "code":   "POSTSUCCESS",   "message": "Perm Role added successfully" }	{   "code": ADDFAILS",   "message":Perm Role already exist" }
_ /api/permrol e/update/pe rmeole/{role number}	GET	Get permrole object for the given rollnumber	Permrole object	
_ /api/permrol e/{rolenumb er}	PUT	Update perm role of a given role number		