

Manual Test Plan

Test Version

Branch: assignment-2.2

Environment Setup & Configuration

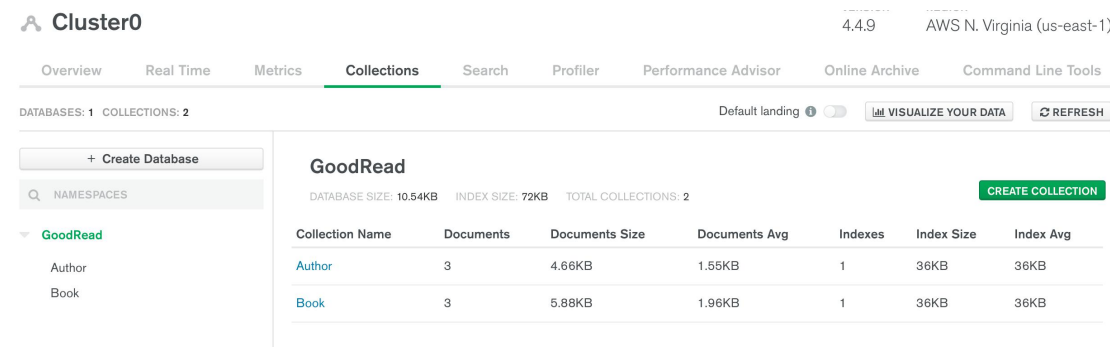
For front-end app:

- Node.js with version higher than 14.18 required
- Ensure package.json exist in good-read-app folder
- To install all dependencies, run “npm install” in good-read-app folder
- Google Chrome is preferred browser for test

For back-end server:

- Python 3.6 or above is required
- Use pip install to ensure following packages are installed:
dotenv, pymongo, certifi, argparse, unittest, bs4, requests
- IDE: Pycharm
- Sign up a mongodb account and create a cluster for cloud database:

Click name of cluster and create a database in collections tab like below:



The screenshot shows the MongoDB Atlas interface for a cluster named 'Cluster0'. The 'Collections' tab is selected, displaying the 'GoodRead' database. The database has a size of 10.54KB, an index size of 72KB, and 2 total collections. The collections are 'Author' and 'Book'. The 'Author' collection has 3 documents, a size of 4.66KB, an average document size of 1.55KB, 1 index, and an index size of 36KB. The 'Book' collection has 3 documents, a size of 5.88KB, an average document size of 1.96KB, 1 index, and an index size of 36KB. A 'CREATE COLLECTION' button is visible in the top right corner of the collections list.

Collection Name	Documents	Documents Size	Documents Avg	Indexes	Index Size	Index Avg
Author	3	4.66KB	1.55KB	1	36KB	36KB
Book	3	5.88KB	1.96KB	1	36KB	36KB

Create .env file and put connection link including your password and user name inside like below:

```
MONGODB_KEY=mongodb+srv://<user name>:<password>@cluster0.cnswy.mongodb.net/myFirstDatabase?retryWrites=true&w=majority
```

json_file folder should exist in src folder which includes valid json file example for this scraper.

Usage

For front-end app:

- Type “npm start” to start app in browser(<http://localhost:3000/api>)
- Type “npm run build” to build for production

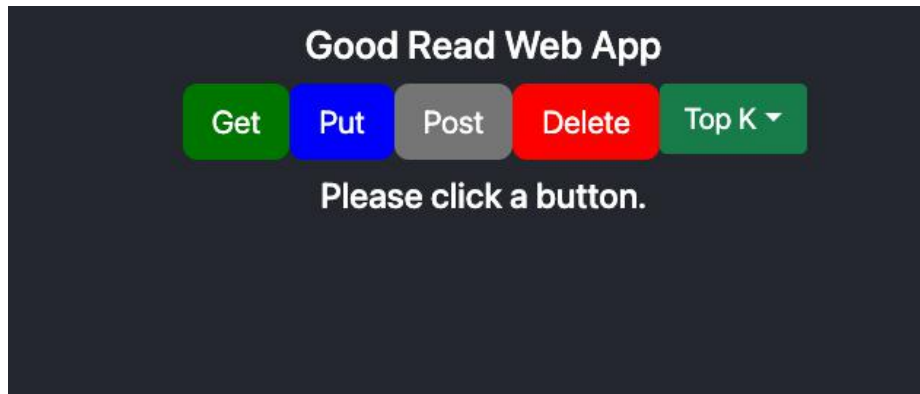
For back-end server:

- Type python web-api.py to start server(<http://127.0.0.1:5000/>)

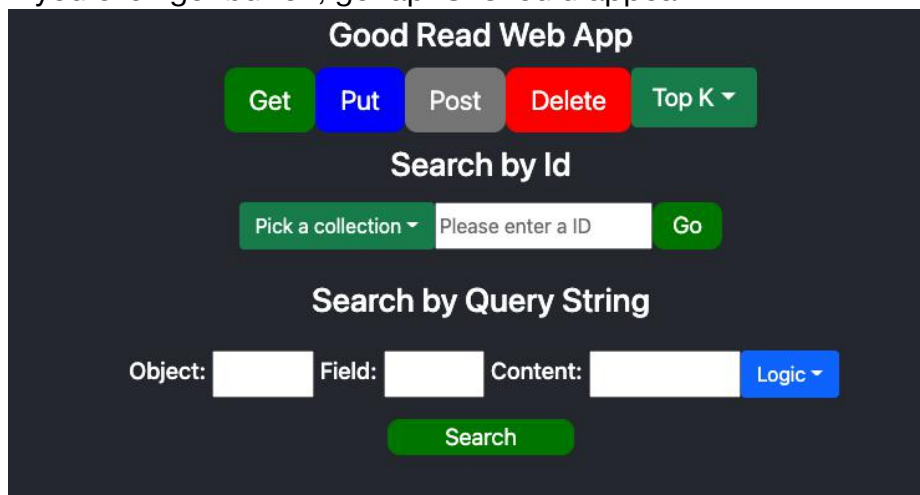
Test Process

(1) Test mode button

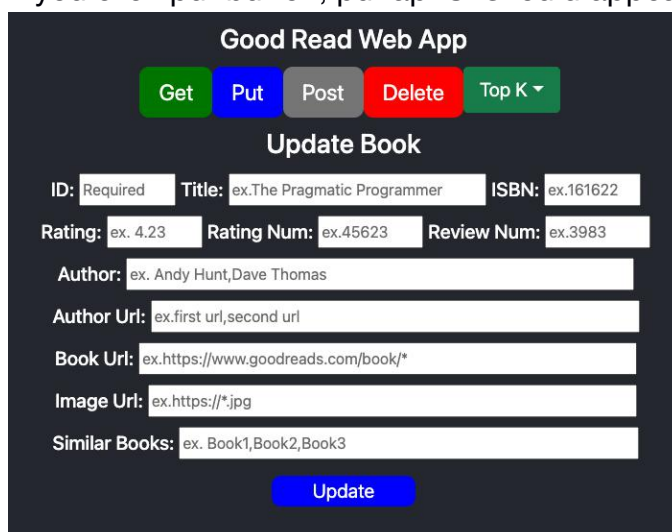
After app start in server, following UI page should appear:



If you click get button, get api UI should appear:



If you click put button, put api UI should appear:



Update Author

ID: Name:

Rating: Rating Num: Review Num:

Main Page Url:

Image Url:

Author Books:

Related Authors:

If you click post button, post api UI should appear:

Good Read Web App

Post Book

ID: Title: ISBN:

Rating: Rating Num: Review Num:

Author:

Author Url:

Book Url:

Image Url:

Similar Books:

Post Author

ID: Name:

Rating: Rating Num: Review Num:

Main Page Url:

Image Url:

Author Books:


Related Authors:

Scrape Information

Book: Author:

Start Book Url:

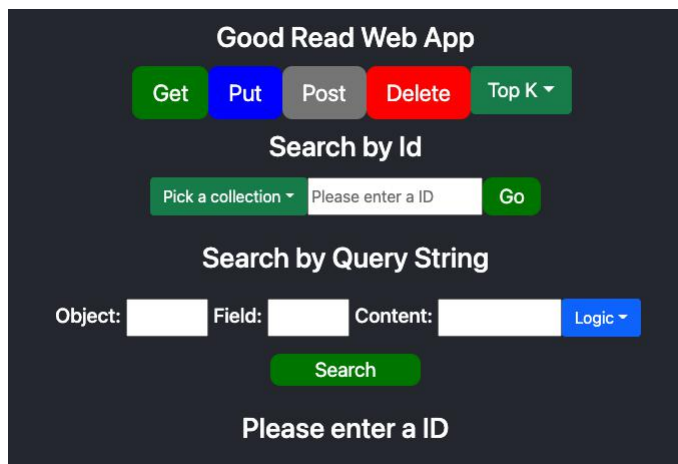
If you click delete button, delete api UI should appear:



The screenshot shows the 'Delete by Id' interface. At the top, there's a header 'Good Read Web App' and a row of buttons: 'Get' (green), 'Put' (blue), 'Post' (grey), 'Delete' (red), and 'Top K' (green with a dropdown arrow). Below this, the title 'Delete by Id' is centered. Underneath, there's a row with a green button 'Pick a collection', a white input field 'Please enter a ID', and a red button 'Delete'.

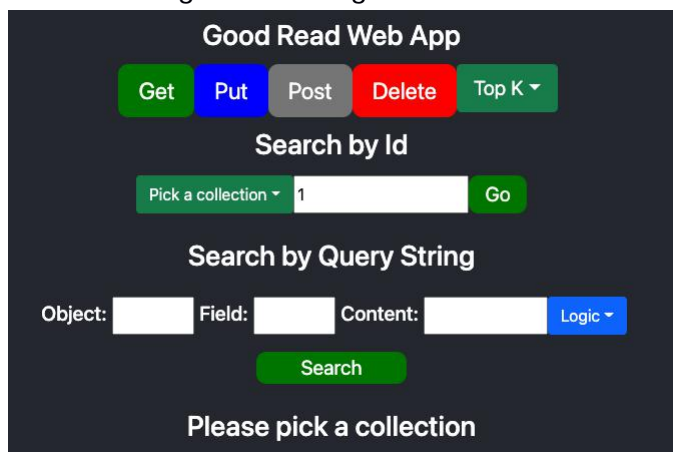
(2) Test get mode search by Id buttons

If you directly click the go button, error message should appear:



The screenshot shows the 'Search by Id' interface. At the top, there's a header 'Good Read Web App' and a row of buttons: 'Get' (green), 'Put' (blue), 'Post' (grey), 'Delete' (red), and 'Top K' (green with a dropdown arrow). Below this, the title 'Search by Id' is centered. Underneath, there's a row with a green button 'Pick a collection', a white input field 'Please enter a ID', and a green button 'Go'. Below this, there's a section 'Search by Query String' with three input fields: 'Object:', 'Field:', and 'Content:', followed by a blue button 'Logic'. Below this, there's a green button 'Search'. At the bottom, there's a message 'Please enter a ID'.

After adding a id in input bar, with out picking a collection, clicking go button should show following error message:



The screenshot shows the 'Search by Id' interface. At the top, there's a header 'Good Read Web App' and a row of buttons: 'Get' (green), 'Put' (blue), 'Post' (grey), 'Delete' (red), and 'Top K' (green with a dropdown arrow). Below this, the title 'Search by Id' is centered. Underneath, there's a row with a green button 'Pick a collection', a white input field containing '1', and a green button 'Go'. Below this, there's a section 'Search by Query String' with three input fields: 'Object:', 'Field:', and 'Content:', followed by a blue button 'Logic'. Below this, there's a green button 'Search'. At the bottom, there's a message 'Please pick a collection'.

Collection pick bar should work correctly as following examples:

Good Read Web App

Get Put Post Delete Top K ▾

Search by Id

book ▾ 1 Go

Search by Query String

Object: Field: Content: Logic ▾

Search

Please pick a collection

Good Read Web App

Get Put Post Delete Top K ▾

Search by Id

author ▾ 1 Go

Search by Query String

Object: Field: Content: Logic ▾

Search

Please pick a collection

(3) Test get mode search by query string buttons
Logical pick button should contain four choices:

Good Read Web App

Get Put Post Delete Top K ▾

Search by Id

author ▾ 1 Go

Search by Query String

Object: Field: Content: Logic ▾

Search

Given query string is not valid

NOT
AND
OR

If blank space is clicked, button should show string: logic:

Good Read Web App

Get Put Post Delete Top K ▾

Search by Id

author ▾ 1 Go

Search by Query String

Object: Field: Content: Logic ▾

Search

Given query string is not valid

If NOT is clicked, button should show string: NOT:

Good Read Web App

Get Put Post Delete Top K ▾

Search by Id

author ▾ 1 Go

Search by Query String

Object: Field: Content: NOT ▾

Search

Given query string is not valid

If AND is clicked, button should show string: AND, and second query string input UI should appear:

Search by Query String

Object: Field: Content: AND ▾

Object: Field: Content:

Search

If OR is clicked, button should show string: OR, and second query string input UI should appear:

Object: Field: Content: OR ▾

Object: Field: Content:

Search

(4) Test get mode search id function:

If non valid id or not exist id is provided, error message should appear:

Search by Id

author

Search by Query String

Object: Field: Content:

Object: Field: Content:

Author not exists

Search by Id

author

Search by Query String

Object: Field: Content:

Object: Field: Content:

Author Id should be an integer value

If a correct and existing id is provided, app should render api response correctly:

Search by Id

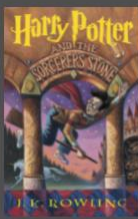
book

Search by Query String

Object: Field: Content:

Object: Field: Content:

Search Result:



Harry Potter and the Sorcerer's Stone(id: 3)

Average rating: 4.47 · 7930036 ratings · 124970 reviewers

Authors: J.K. Rowling.

Authors Url: https://www.goodreads.com/author/show/1077326.J_K_Rowling

ISBN: null

Similar Books: "The Hunger Games (The Hunger Games, #1)" "Twilight (The Twilight Saga, #1)" "The Fault in Our Stars" "The Hobbit, or There and Back Again" "Divergent (Divergent, #1)" "The Lightning Thief (Percy Jackson and the Olympians, #1)" "To Kill a Mockingbird" "Pride and Prejudice" "The Great Gatsby" "The Lion, the Witch and the Wardrobe (Chronicles of Narnia, #1)" "Catching Fire (The Hunger Games, #2)" "A Game of Thrones (A Song of Ice and Fire, #1)" "Harry Potter and the Chamber of Secrets: Sheet Music for Flute with CD" "The Diary of a Young Girl" "Charlotte's Web" "The Fellowship of the Ring (The Lord of the Rings, #1)" "Angels & Demons (Robert Langdon, #1)" "1984" "Eragon (The Inheritance Cycle, #1)" "Fifty Shades of Grey (Fifty Shades, #1)"

Book Url: https://www.goodreads.com/book/show/3.Harry_Potter_and_the_Sorcerer_s_Stone

Image Url: https://i.gr-assets.com/images/S/compressed.photo.goodreads.com/books/1474154022/3_S/475_.jpg

Search by Id

author 153394 Go


Search by Query String

Object: Field: Content: OR

Object: Field: Content:

Search

Search Result:



Suzanne Collins(id: 153394)

Average rating: 4.25 · 13167776 ratings · 443050 reviewers

Author Books: "The Hunger Games (The Hunger Games, #1)" "Catching Fire (The Hunger Games, #2)" "Mockingjay (The Hunger Games, #3)" "The Ballad of Songbirds and Snakes (The Hunger Games, #4)" "The Hunger Games Trilogy Boxset (The Hunger Games, #1-3)" "Gregor the Overlander (Underland Chronicles, #1)" "Gregor and the Code of Claw (Underland Chronicles, #5)" "Gregor and the Curse of the Warmbloods (Underland Chronicles, #3)" "SAMPLER ONLY: Catching Fire (The Hunger Games, #2)" "Gregor and the Prophecy of Bane (Underland Chronicles, #2)" "Gregor and the Marks of Secret (Underland Chronicles, #4)" "Gregor the Overlander Box Set (Underland Chronicles, #1-4)" "ハンガー・ゲーム (上)" "Year of the Jungle" "When Charlie McButton Lost Power" "The Hunger Games: Four Book Collection" "ハンガー・ゲーム2 燃え広がる炎 Vol. 1 (The Hunger Games, #2)" "Hunger Games tome 1 - extrait offert" "ハンガー・ゲーム2 燃え広がる炎 Vol. 2 (The Hunger Games, #2)" "ハンガー・ゲーム (下)" "12" "ハンガー・ゲーム3 上 (ハンガー・ゲーム #3.1)" "Gregor The Underground Chronicles 6-Pack Boxed Gift Set: Books #1-5 Plus an Exclusive Journal" "W pierścieniu ognia. Igrzyska śmierci. Tom 2" "ハンガー・ゲーム3 下 (ハンガー・ゲーム #3.2)" "The Ballad of Songbirds and Snakes & The Hunger Games Mockingjay By Suzanne Collins 2 Books Collection Set" "THE HUNGER GAMES TRILOGY INCLUDES AN EXCLUSIVE JOURNAL AND BOOKMARK" "The Hunger Games" "Gregor Yeralti Gunlukleri" "Igrzyska śmierci. Tom 1"

Related Authors: "Rick Riordan" "Cassandra Clare" "James Dashner" "J.R.R. Tolkien" "Stephanie Meyer" "J.K. Rowling" "John Green" "Veronica Roth" "E.L. James"

Main Page Url: https://www.goodreads.com/author/show/153394.Suzanne_Collins

Image Url: <https://images.gr-assets.com/authors/1630199330p5/153394.jpg>

(5) Test get mode query string search function:

Any type of invalid query string should make error message appear to remind user to change format:

Search by Query String

Object: not book Field: not field Content: asewqd Logic

Search

Given query string is not valid

Search by Query String

Object: book Field: id Content: > 123 AND

Object: author Field: asdw Content: < 345

Search

Given query string is not valid

Valid query result should be rendered after search button is clicked:

Search by Query String

Object: author Field: rating Content: > 4.2 AND

Object: author Field: rating Content: < 4.26

Search

Search Result:



Steve McConnell(id: 3307)

Average rating: 4.21 · 11850 ratings · 541 reviewers

Author Books: "Code Complete" "Rapid Development: Taming Wild Software Schedules" "Software Estimation: Demystifying the Black Art" "Software Project Survival Guide" "Professional Software Development: Shorter Schedules, Higher Quality Products, More Successful Projects, Enhanced Careers" "After the Gold Rush: Creating a True Profession of Software Engineering" "More Effective Agile" "Software Engineering Classics: Software Project Survival Guide/ Debugging the Development Process/ Dynamics of Software Development" "A Birder's Guide to Alabama" "Kôdo Konpurito: 003.Kanzenna Puroguramingu O Mezashite Maikurosofuto Kôshiki" "Kôdo Konpurito: 001.Kanzenna Puroguramingu O Mezashite Maikurosofuto Kôshiki" "Sofutôea Mitsumori: Ningetsu No Anmokuchi O Tokiaku" "Sofutôea Mitsumori: Ningetsu No Anmokuchi O Tokiaku"

Related Authors: "Andy Hunt" "Alan Cooper" "Michael C. Feathers" "Kent Beck" "Martin Fowler" "Eric Freeman" "Tom DeMarco" "Robert C. Martin" "Erich Gamma" "Joshua Bloch" "Scott Meyers" "Thomas H. Cormen" "Eric Evans" "Brian W. Kernighan" "Peter Seibel" "Douglas Crockford" "Frederick P. Brooks Jr." "Harold Abelson" "Jocko Willink"

Main Page Url: https://www.goodreads.com/author/show/3307.Steve_McConnell

Image Url: unknown



Suzanne Collins(id: 153394)

Average rating: 4.25 · 13167776 ratings · 443050 reviewers

Author Books: "The Hunger Games (The Hunger Games, #1)" "Catching Fire (The Hunger Games, #2)" "Mockingjay (The Hunger Games, #3)" "The Ballad of Songbirds and Snakes (The Hunger Games, #0)" "The Hunger Games Trilogy Boxset (The Hunger Games, #1-3)" "Gregor the Overlander (Underland Chronicles, #1)" "Gregor and the Code of Claw (Underland Chronicles, #5)" "Gregor and the Curse of the Warmbloods (Underland Chronicles, #3)" "SAMPLER ONLY: Catching Fire (The Hunger Games, #2)" "Gregor and the Prophecy of Bane (Underland Chronicles, #2)" "Gregor and the Marks of Secret (Underland Chronicles, #4)" "Gregor the Overlander Box Set (Underland Chronicles, #1-4)" "ハンガー・ゲーム (上)" "Year of the Jungle" "When Charlie McButton Lost Power" "The Hunger Games: Four Book Collection" "ハンガー・ゲーム2 燃え広がる炎 Vol. 1 (The Hunger Games, #2)" "Hunger Games tome 1 - extrait offert" "ハンガー・ゲーム2 燃え広がる炎 Vol. 2 (The Hunger Games, #2)" "ハンガー・ゲーム (下)" "12" "ハンガー・ゲーム3 上 (ハンガー・ゲーム #3.1)" "Gregor The Underground Chronicles 6-Pack Boxed Gift Set: Books #1-5 Plus an Exclusive Journal" "W pierścieniu ognia. Igrzyska śmierci. Tom 2" "ハンガー・ゲーム3 下 (ハンガー・ゲーム #3.2)" "The Ballad of Songbirds and Snakes & The Hunger Games Mockingjay By Suzanne Collins 2 Books Collection Set" "THE HUNGER GAMES TRILOGY INCLUDES AN EXCLUSIVE JOURNAL AND BOOKMARK" "The Hunger Games" "Gregor Yeraliti Gunlukleri" "Igrzyska śmierci. Tom 1"

Related Authors: "Rick Riordan" "Cassandra Clare" "James Dashner" "J.R.R. Tolkien" "Stephenie Meyer" "J.K. Rowling" "John Green" "Veronica Roth" "E.L. James"

Main Page Url: https://www.goodreads.com/author/show/153394.Suzanne_Collins

Image Url: <https://images.gr-assets.com/authors/1630199350p5/153394.jpg>

(6) Test put mode update book button:

All input bar should contain hint about input format.

Update Book

ID: Required

Title: ex.The Pragmatic Programmer

ISBN: ex.161622

Rating: ex. 4.23

Rating Num: ex.45623

Review Num: ex.3983

Author: ex. Andy Hunt,Dave Thomas

Author Url: ex.first url,second url

Book Url: ex.https://www.goodreads.com/book/*

Image Url: ex.https://*.jpg

Similar Books: ex. Book1,Book2,Book3

Update

If no book id is provided, update button should trigger error message to appear:

Update

Please provide a book id

(7) Test put mode update book function:

If user give a id that is not exist in database, error message should appear:

Update Book

ID: Title: ISBN:

Rating: Rating Num: Review Num:

Author:

Author Url:

Book Url:

Image Url:

Similar Books:

Book not exists

If incorrect format is provided for a entity, error message should appear:

Provided data is not in correct format

If correct format input is provided, put process should success:

Update Book

ID: Title: ISBN:

Rating: Rating Num: Review Num:

Author:

Author Url:

Book Url:

Image Url:

Similar Books:

Put success

(8) Test put mode author buttons:

All input bar should contain hint about input format.

Update Author

ID: Name:

Rating: Rating Num: Review Num:

Main Page Url:

Image Url:

Author Books:

Related Authors:

If no author id is provided, update button should trigger error message to appear:

Please provide a author id

(9) Test put mode author functions:

If user give a id that is not exist in database, error message should appear:

Update Author

ID: 1

Name: ex.Andy Hunt

Rating: 3.2

Rating Num: ex.45623

Review Num: ex.3983

Main Page Url: ex.https://www.goodreads.com/author/*

Image Url: ex.https://*.jpg

Author Books: ex. Book1,Book2,Book3

Related Authors: ex. Author1,Author2,Author3

Update

Author not exists

If incorrect format is provided for a entity, error message should appear:

Update

Provided data is not in correct format

If correct format input is provided, put process should success:

Update Author

ID: 2815

Name: Andy Hunt

Rating: ex. 4.23

Rating Num: ex.45623

Review Num: ex.3983

Main Page Url: ex.https://www.goodreads.com/author/*

Image Url: ex.https://*.jpg

Author Books: ex. Book1,Book2,Book3

Related Authors: ex. Author1,Author2,Author3

Update

Put success

(10) Test post mode book button

If no id is provided, append button should give correct error message:

Post Book

ID: Required

Title: ex.The Pragmatic Programmer

ISBN: ex.161622

Rating: ex. 4.23

Rating Num: ex.45623

Review Num: ex.3983

Author: ex. Andy Hunt,Dave Thomas

Author Url: ex.first url,second url

Book Url: ex.https://www.goodreads.com/book/*

Image Url: ex.https://*.jpg

Similar Books: ex. Book1,Book2,Book3

Apend

Delete

Post

Please provide a book id

If no info has been append to the list, delete and post button should give error message:

Post Book

ID: Required Title: ex.The Pragmatic Programmer ISBN: ex.161622

Rating: ex. 4.23 Rating Num: ex.45623 Review Num: ex.3983

Author: ex. Andy Hunt,Dave Thomas

Author Url: ex.first url,second url

Book Url: ex.https://www.goodreads.com/book/*

Image Url: ex.https://*.jpg

Similar Books: ex. Book1,Book2,Book3

Append Delete Post

No book in list right now.

(11) Test post mode book fuction

After append button is clicked, all info in input bar should be collected and add to list, and then input bar should all become empty for another input:

Post Book

ID: Required Title: ex.The Pragmatic Programmer ISBN: ex.161622

Rating: ex. 4.23 Rating Num: ex.45623 Review Num: ex.3983

Author: ex. Andy Hunt,Dave Thomas

Author Url: ex.first url,second url

Book Url: ex.https://www.goodreads.com/book/*

Image Url: ex.https://*.jpg

Similar Books: ex. Book1,Book2,Book3

Append Delete Post

Book (id: 1) added to list.

After delete button is clicked, last added info should be removed from list:

Append Delete Post

Book (id: 1) removed from list.

If list is not empty, post button should post all info to back end server and give success response or error message:

Append Delete Post

Post success

Append Delete Post

Data is not in correct format

(12) Test post mode author button

If no id is provided, append button should give correct error message:

Post Author

ID: Name:

Rating: Rating Num: Review Num:

Main Page Url:

Image Url:

Author Books:

Related Authors:

Please provide a author id

If no info has been append to the list, delete and post button should give error message:

Post Author

ID: Name:

Rating: Rating Num: Review Num:

Main Page Url:

Image Url:

Author Books:

Related Authors:

No author in list right now.

(13) Test post mode author function

After append button is clicked, all info in input bar should be collected and add to list, and then input bar should all become empty for another input:

Post Author

ID: Name:

Rating: Rating Num: Review Num:

Main Page Url:

Image Url:

Author Books:

Related Authors:

Author (id: 1) added to list.

After delete button is clicked, last added info should be removed from list:

Author(id: 1) removed from list.

If list is not empty, post button should post all info to back end server and give success response or error message:

Post success

Append Delete Post

Data is not in correct format

(14) Test post mode scrape button

If not all three input bar is filled with value, start button should trigger corresponding error message:

Scrape Information

Book: Number of books to scrape Author: Number of authors to scrape

Start Book Url: ex.https://www.goodreads.com/book/*

Start

Please enter number of books to scrape

Scrape Information

Book: 1 Author: Number of authors to scrape

Start Book Url: ex.https://www.goodreads.com/book/*

Start

Please enter number of authors to scrape

Scrape Information

Book: 1 Author: 1

Start Book Url: ex.https://www.goodreads.com/book/*

Start

Please enter a url to start

(15) Test post mode scrape function

If correct input is provided, start button should show message that scraper is working and give success response or error message:

Scrape Information

Book: 1 Author: 1

Start Book Url: https://www.goodreads.com/book/show/58128.Head_First_Design

Start

Scraping...

Scrape Information

Book: 1 Author: 1

Start Book Url: https://www.goodreads.com/book/show/58128.Head_First_Design

Start

Scrape success

Scrape Information

Book: Author:

Start Book Uri:

Please provide a good read book url

(16) Test delete mode button

If no collection is selected or no id got, delete button should show error message like below

Delete by Id

Pick a collection ▾ Please enter a ID

Please enter a ID

Delete by Id

book ▾ Please enter a ID

Please enter a ID

Collection bar should work correctly after user pick a collection:

Delete by Id

book ▾ Please enter a ID

Delete by Id

author ▾ Please enter a ID

(17) Test delete mode function

If id does not exist in database, correct error message should appear:

Delete by Id

author ▾ 23412

Author not exists

Delete by Id

book ▾ 23412

Book not exists

If id is valid, delete process should success:

Delete by Id

book ▾ 1

Delete success

Delete by Id

author ▾ 1

Delete success

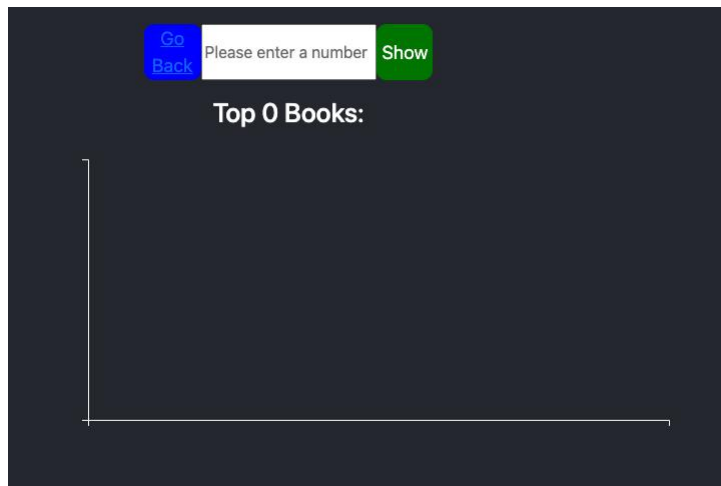
(18) Test top k book button

Top k drop down button should correctly set route to </vis/top-books> after

picking book:

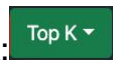
Go back button should correctly set route back to </api>

When no number is provided, show button should show no books:



(19) Test top k author button

Top k drop down button should correctly set route to </vis/top-authors> after picking book:



Go back button should correctly set route back to </api>

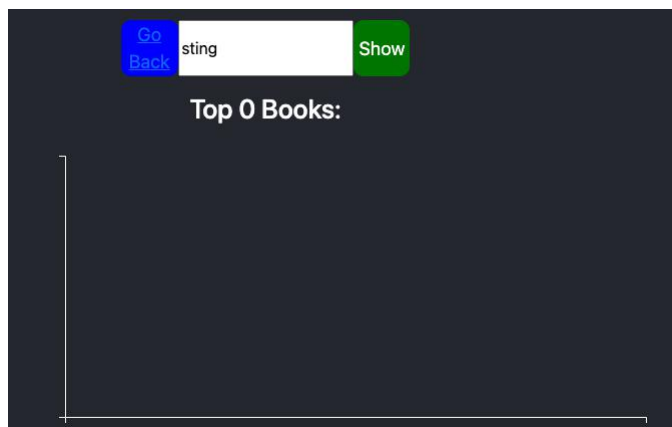


When no number is provided, show button should show no books:

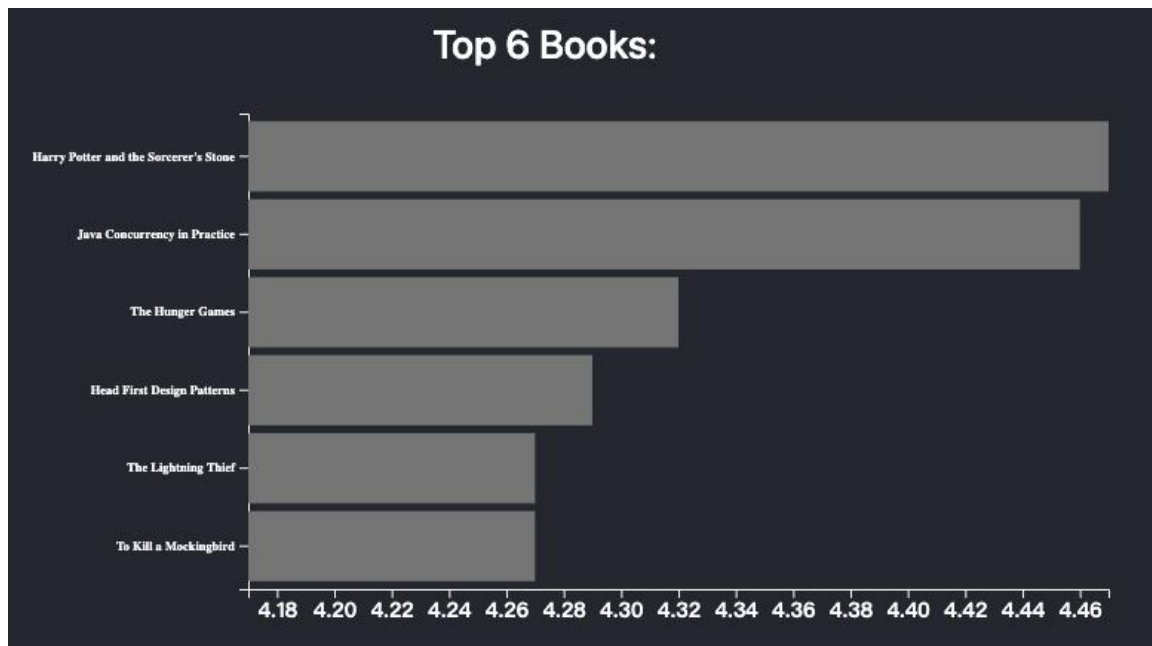


(20) Test top k book function

When invalid string is provided as input, not book result should appear:



When valid string is provided, correct data visualization of book ranking should appear:

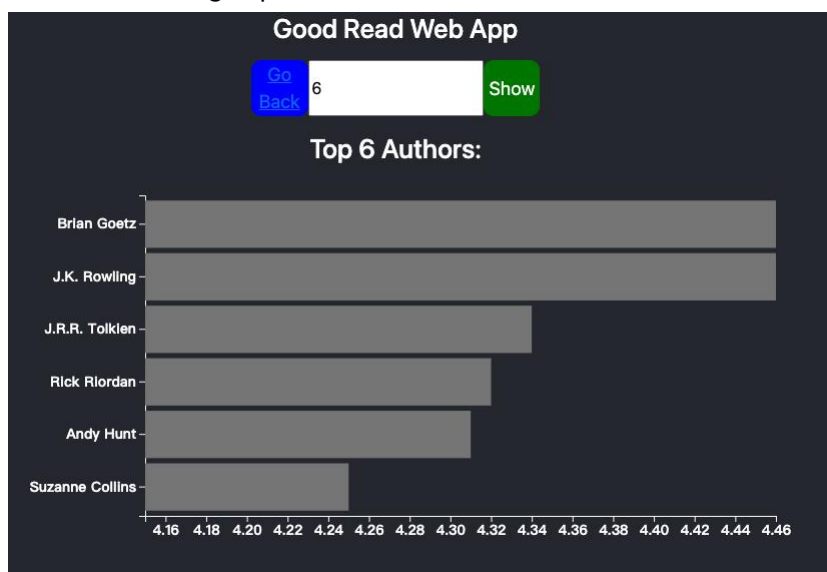


(21) Test top k author function

When invalid string is provided as input, not book result should appear:



When valid string is provided, correct data visualization of book ranking should appear:



(22) Test responsive web page

During all test process above, all pages elements should resize with viewport changes and without horizontal overflow

