

# Manual Test Plan

## Prerequisites

1. Python Compiler
2. Python Version 3.9.0
3. PyCharm IDE
4. MongoDB Atlas
5. IntelliJ IDE
6. React.js
7. npm version 6.14.4

## Environment Setup and configurations

- Mac OS environment
- Environment variables
  - **PASSWORD** to connect to the database
  - **FLASK\_APP** to indicate where the api is configured
  - **FLASK\_ENV** to indicate production environment
- Conduct manual testing by manually validating each functionality by creating and executing test cases. (<https://reqtest.com/testing-blog/gui-testing-tutorial/>)

## Operations and the results

### WEB APPLICATION

- The web application uses React - an open-source, front end, JavaScript library
- The UI is designed to easily send api requests and view their responses in visual or tabular formats
- In order to view the web app locally, you must concurrently start the server and the start react scripts
- Run `flask run` in one terminal window

```
(venv) Aayushis-MacBook-Pro:assignment2 aayushi$ flask run
* Serving Flask app "src.api.py" (lazy loading)
* Environment: development
* Debug mode: on
* Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
* Restarting with stat
* Debugger is active!
* Debugger PIN: 168-976-829
```

- Run `npm start` in another terminal window within the web-app directory

```
(venv) Aayushis-MacBook-Pro:web-app aayushi$ npm start

> web-app@0.1.0 start /Users/aayushi/Desktop/cs242git/assignment2/src/web-app
> react-scripts start

i [wds]: Project is running at http://10.183.2.185/
i [wds]: webpack output is served from
i [wds]: Content not from webpack is served from /Users/aayushi/Desktop/cs242git/assignment2/src/web-app/
i [wds]: 404s will fallback to /
Starting the development server...
Compiled with warnings.
```

- The web app can be accessed locally at <http://localhost:3000/> and will look like upon launch

### Goodreads CRUD App

#### API Input

Book ID

GET Book

Author ID

GET Author

Search Query

GET Search

#### API Response

## Test Items

### WEB APPLICATION

1. Check if GET Book form option works
  - a. Check valid input (1)
    - i. Enter 3735293 in the **Book ID** field and click **GET Book**
    - ii. Make sure the details are rendered in a tabular format (success)

#### API Response

Book URL	Title	Book ID	ISBN	Author URL	Author
<a href="https://www.goodreads.com/book/show/3735293-clean-code">https://www.goodreads.com/book/show/3735293-clean-code</a>	Clean Code: A Handbook of Agile Software Craftsmanship	3735293	9780132350884	<a href="https://www.goodreads.com/author/show/45372.Robert_C_Martin">https://www.goodreads.com/author/show/45372.Robert_C_Martin</a>	Robert C. Martin

- b. Check invalid input (2)
    - i. Enter 123 in the **Book ID** field and click **GET Book**
    - ii. Make sure the response is “ID not found.” (success)

#### API Response

ID not found.

2. Check if GET Author form option works
  - a. Check valid input (3)
    - i. Enter 45372 in the **Author ID** field and click **GET Author**
    - ii. Make sure the details are rendered in a tabular format (success)

#### API Response

Author URL	Name	Author ID	Rating	Rating Count	Review Count	Image URL	Related Auth
<a href="https://www.goodreads.com/author/show/45372.Robert_C_Martin">https://www.goodreads.com/author/show/45372.Robert_C_Martin</a>	Robert C. Martin	45372	4.34	29251	1924	<a href="https://images.gr-assets.com/authors/1490470967p5/45372.jpg">https://images.gr-assets.com/authors/1490470967p5/45372.jpg</a>	<a href="https://www.g">https://www.g</a>

- b. Check invalid input (4)
  - i. Enter 123 in the **Author ID** field and click **GET Author**
  - ii. Make sure the response is “ID not found.” (success)

### API Response

ID not found.

- 3. Check if GET Author form option works
  - a. Check valid input (5)
    - i. Enter book.book\_id:27 in the **Search Query** field and click **GET Search**
    - ii. Make sure the details are rendered in a tabular format (success)

### API Response

Book URL	Title	Book ID	ISBN
https://www.goodreads.com/book/show/7183279-metaprogramming-ruby	Metaprogramming Ruby	7183279	978193
https://www.goodreads.com/book/show/2278064.Design_Patterns_in_Ruby	Design Patterns in Ruby	2278064.Design_Patterns_in_Ruby	978032
https://www.goodreads.com/book/show/10790276-courageous	Courageous	10790276	123456
https://www.goodreads.com/book/show/50274.The_Room	The Room	50274.The_Room	978071
https://www.goodreads.com/book/show/46227.Ask_the_Dust	Ask the Dust	46227.Ask_the_Dust	978006
https://www.goodreads.com/book/show/127784.JFK	JFK: Reckless Youth	127784.JFK	978051

- b. Check invalid input (6)
  - i. Enter book.book\_id:123 in the **Search Query** field and click **GET Search**
  - ii. Make sure an empty table is rendered (success)

### API Response

Book URL	Title	Book ID	ISBN	Author URL	Author	Rating	Rating Count	Review Count	Image URL	Similar Books
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4. Check if PUT Book form option works

- a. Check valid input (7)
  - i. Enter 10790276 in the **Book ID** field and {"ISBN": "1234567890"} in the **JSON Input** field and click **PUT Book**
  - ii. Make sure the details are rendered in a tabular format with the updated information (success)

### API Response

Book URL	Title	Book ID	ISBN	Author URL	Author	Rating
https://www.goodreads.com/book/show/10790276-courageous	Courageous	10790276	1234567890	https://www.goodreads.com/author/show/4862.Randy_Alcorn	Randy Alcorn	4.5

5. Check if PUT Author form option works

- a. Check valid input (8)
  - i. Enter 24586 in the **Author ID** field and {"review\_count": "1234567890"} in the **JSON Input** field and click **PUT Book**
  - ii. Make sure the details are rendered in a tabular format with the updated information (success)

### API Response

Author URL	Name	Author ID	Rating	Rating Count	Review Count	Image URL
https://www.goodreads.com/author/show/24586.Karen_Tei_Yamashita	Karen Tei Yamashita	24586	3.68	4800	1234567890	https://images.gr-assets.com/authors/1294348946p5/24586.jpg

6. Check if DELETE Book option works

- a. Check valid input (9)
  - i. Enter 54668652 in the **Book ID** field and click **DELETE Book**
  - ii. Make sure the response is "Successfully deleted book." (success)

### API Response

Successfully deleted book.

7. Check if DELETE Author option works

- a. Check valid input (10)

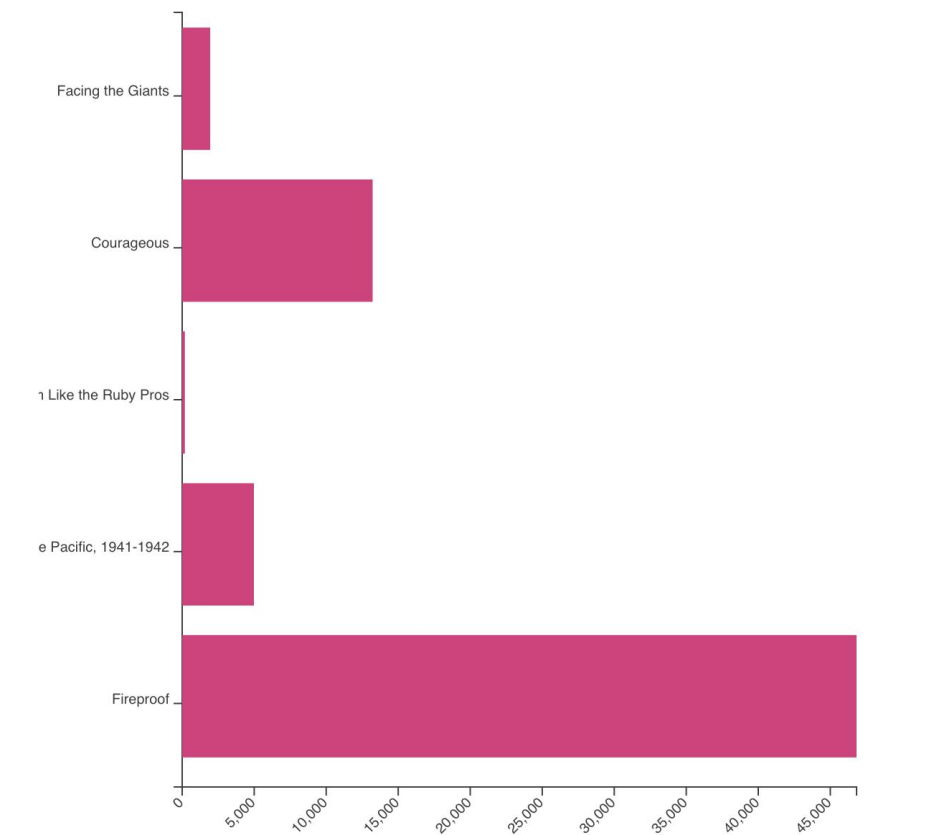
- i. Enter 295142 in the **Author ID** field and click **DELETE Author**
- ii. Make sure the response is “Successfully deleted author.” (success)

## API Response

Successfully deleted author.

- 8. Check if Render Visualization option works (Top k Books)
  - a. Check for small k (11)
    - i. Enter 5 in the **Top k Books** field and click **Render Visualization**
    - ii. Make sure the response is a bar chart visualization of the top 5 books with accurate rating count numbers (success)

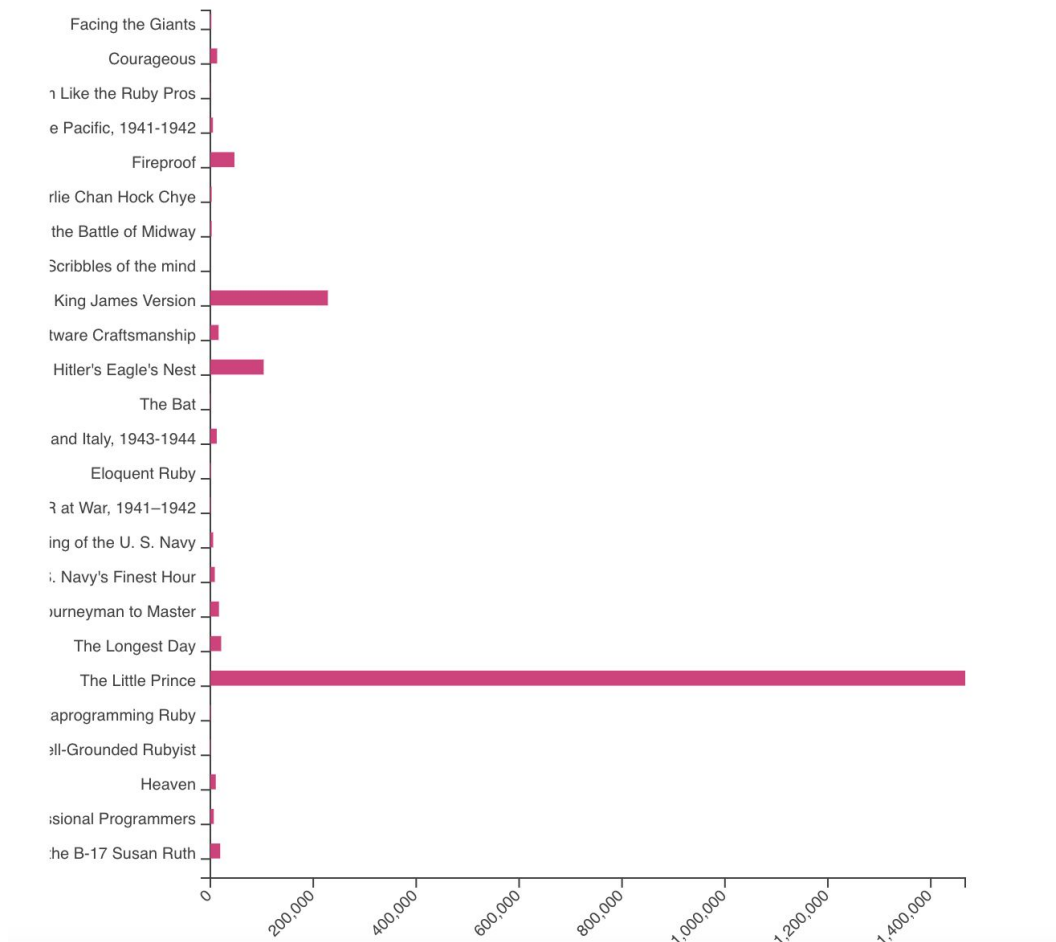
## API Response



b. Check for larger k (12)

- i. Enter 25 in the **Top k Books** field and click **Render Visualization**
- ii. Make sure the response is a bar chart visualization of the top 25 books with accurate rating count numbers (success)

## API Response



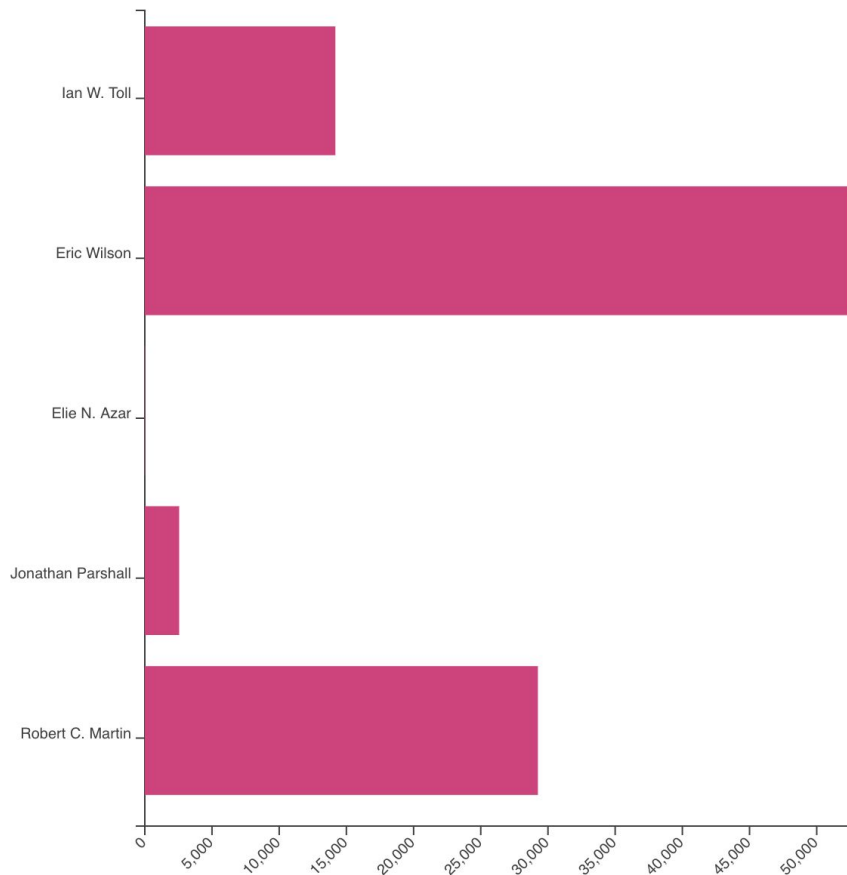


9. Check if Render Visualization option works (Top k Authors)

a. Check for small k (13)

- i. Enter 5 in the **Top k Authors** field and click **Render Visualization**
- ii. Make sure the response is a bar chart visualization of the top 5 authors with accurate rating count numbers (success)

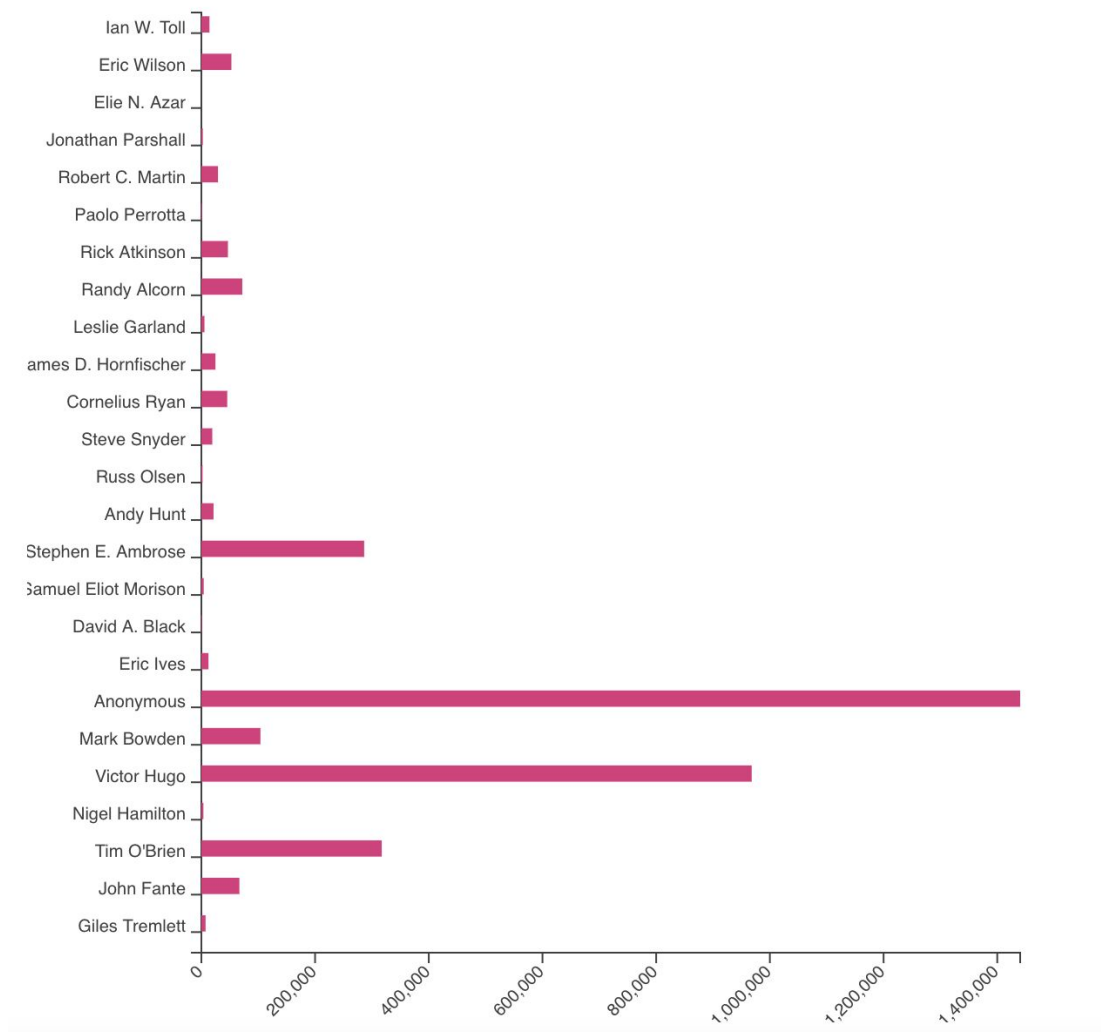
## API Response



b. Check for larger k (14)

- i. Enter 25 in the **Top k Authors** field and click **Render Visualization**
- ii. Make sure the response is a bar chart visualization of the top 25 authors with accurate rating count numbers (success)

## API Response



10. Check if website has a responsive layout

a. Change the screen view to half the size (15)

- i. Make sure elements resize with viewport changes and without horizontal overflow (success)

The screenshot shows the Goodreads CRUD App interface at half size. It includes a 'DELETE Book' button, an 'Author ID' input field with a 'DELETE Author' button, a 'Top k Books' input field with a 'Render Visualization' button, and a 'Top k Authors' input field with a 'Render Visualization' button.

## API Response

ID not found.

b. Change the screen view to iPhone 5 (320 x 568 pt) device (16)

- i. Make sure elements resize with viewport changes and without horizontal overflow and is readable (success)

The screenshot shows the Goodreads CRUD App interface on an iPhone 5 device. It includes a 'GET Book' button, a 'GET Author' button, and a 'GET Search' button. The interface is titled 'Goodreads CRUD App' and 'API Input'.

- c. Change the screen view to iPhone 12 Pro Max (428x926 pt) device (17)
  - i. Make sure elements resize with viewport changes and without horizontal overflow and is readable (success)

Goodreads CRUD App

API Input

Book ID

123

GET Book

Author ID

GET Author

Search Query


GET Search

Book ID

JSON Input

POST Book

- 11. Check if POST Book option works
  - a. Check valid input (18)
    - i. Enter single json book object in the **Json Input** field and click **POST Book**
    - ii. Make sure the response is “Successfully posted book.” (success)
- 12. Check if POST Books option works
  - a. Check valid input (19)
    - i. Enter array of json book objects in the **Json Input** field and click **POST Books**
    - ii. Make sure the response is “Successfully posted books.” (success)
- 13. Check if POST Author option works
  - a. Check valid input (20)
    - i. Enter single json author object in the **Json Input** field and click **POST Author**
    - ii. Make sure the response is “Successfully posted author.” (success)
- 14. Check if POST Authors option works
  - a. Check valid input (21)

- 
- i. Enter array of json author objects in the **Json Input** field and click **POST Authors**
  - ii. Make sure the response is “Successfully posted authors.” (success)