

## Project Title

### Automated API Testing Using Postman – Simple Book API

## Project Description

This project focuses on testing a public REST API using **Postman**. The selected API is the **Simple Book API**, which provides data about books in JSON format. The main goal of the project is to verify that the API works correctly by using automated tests written in JavaScript in the Postman Tests tab.

The project includes a collection with one request that retrieves a list of books. The API response contains at least six book objects. Several automated tests were created to validate different aspects of the API, such as the HTTP status code, response time, structure of the response, number of elements in the collection, and the presence of specific data.

This project demonstrates practical skills in API testing, understanding REST principles, and writing automated tests. It also shows how Postman can be used as a professional tool for validating backend services. **API Used**

## Simple Book API

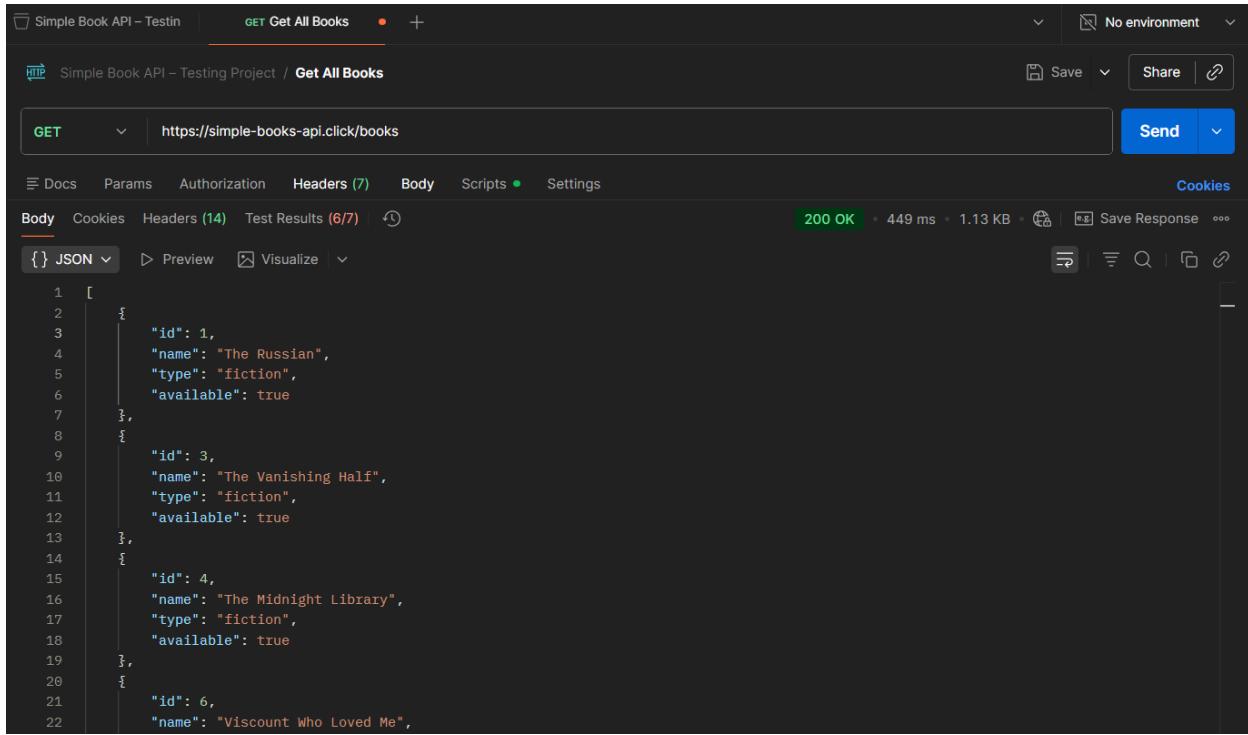
Endpoint: GET <https://simple-books-api.glitch.me/books>

## Implemented Tests

The following automated tests were implemented:

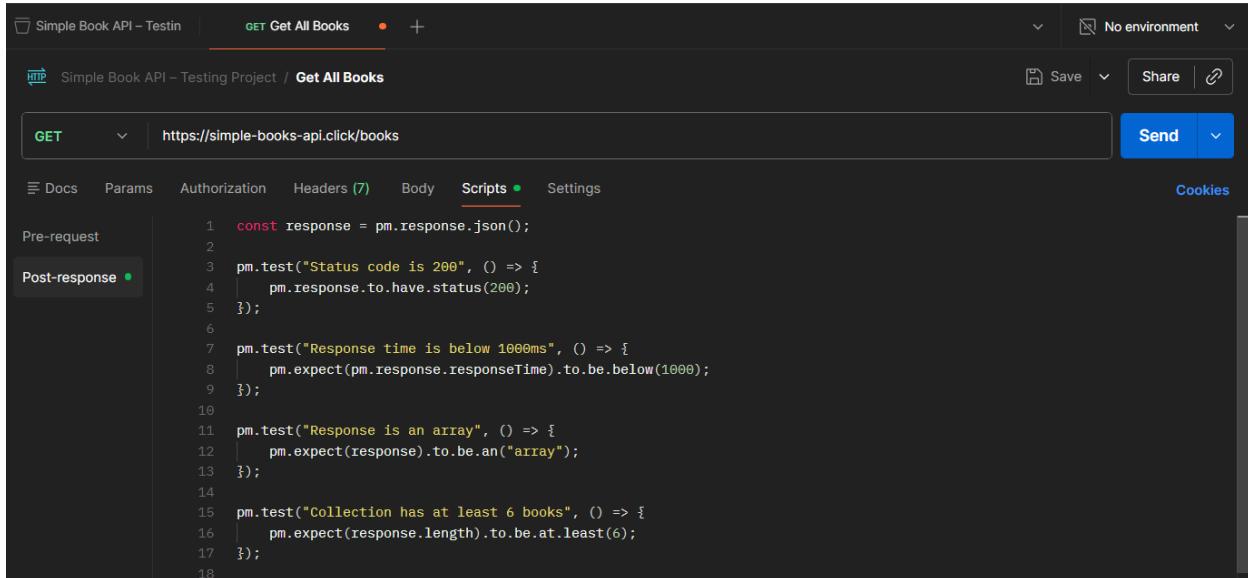
1. Verification that the HTTP status code is **200 (OK)**
2. Validation that the API response time is below **1000 ms**
3. Checking that the response is an **array**
4. Validation that the collection contains **at least 6 books**
5. Checking that each book object contains required fields such as **id** and **name**
6. Verification that a specific book ("The Russian") exists in the response
7. Example of a **failing test** to demonstrate error detection

## Screenshots



The screenshot shows the Postman interface with a successful API call. The URL is `https://simple-books-api.click/books`. The response body is a JSON array of books:

```
1 [  
2 {  
3   "id": 1,  
4   "name": "The Russian",  
5   "type": "fiction",  
6   "available": true  
7 },  
8 {  
9   "id": 3,  
10  "name": "The Vanishing Half",  
11  "type": "fiction",  
12  "available": true  
13 },  
14 {  
15  "id": 4,  
16  "name": "The Midnight Library",  
17  "type": "fiction",  
18  "available": true  
19 },  
20 {  
21  "id": 6,  
22  "name": "Viscount Who Loved Me",  
23 }]
```



The screenshot shows the Postman interface with a script for a POST response test. The script is located under the "Post-response" tab and contains the following code:

```
1 const response = pm.response.json();  
2  
3 pm.test("Status code is 200", () => {  
4   pm.response.to.have.status(200);  
5 });  
6  
7 pm.test("Response time is below 1000ms", () => {  
8   pm.expect(pm.response.responseTime).to.be.below(1000);  
9 });  
10  
11 pm.test("Response is an array", () => {  
12   pm.expect(response).to.be.an("array");  
13 });  
14  
15 pm.test("Collection has at least 6 books", () => {  
16   pm.expect(response.length).to.be.at.least(6);  
17 });  
18
```

```

11 pm.test("Response is an array", () => {
12   pm.expect(response).to.be.an("array");
13 });
14
15 pm.test("Collection has at least 6 books", () => {
16   pm.expect(response.length).to.be.at.least(6);
17 });
18
19 pm.test("First book has id and name", () => {
20   pm.expect(response[0]).to.have.property("id");
21   pm.expect(response[0]).to.have.property("name");
22 });
23
24 pm.test("Book 'The Russian' exists", () => {
25   const names = response.map(b => b.name);
26   pm.expect(names).to.include("The Russian");
27 });
28
29 pm.test("Example failing test", () => {
30   pm.expect(1).to.eql(2);
31 });
32

```

Status	Assertion
PASSED	Status code is 200
PASSED	Response time is below 1000ms
PASSED	Response is an array
PASSED	Collection has at least 6 books
PASSED	First book has id and name
PASSED	Book 'The Russian' exists
FAILED	Example failing test   AssertionError: expected 1 to deeply equal 2

## Tools and Technologies

- Postman
- REST API
- JavaScript (Postman test scripts)
- JSON

## **Conclusion**

This project shows how automated API testing can be performed using Postman. The tests help ensure the correctness, performance, and reliability of the API. The project is suitable for beginners and demonstrates essential skills required in software testing and backend development.

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