Midterm API Project - COMP229 Winter 2024

Project Overview

Your mission, should you choose to accept it, is to implement the missing logic for managing a collection of books via an API. The server is already set up and running on port `8080`, with an array of books ready for you to manipulate.

Endpoints:

- **GET /api/items** - Retrieve the full list of books.
- **GET /api/items/search?title=[partial title name]** - Retrieve books by a partial title match.
- **GET /api/items/:id** - Retrieve a book by its index (ID).
- **POST /api/items** - Add a new book to the collection.
- **PUT /api/items/:id** - Update a book by its index (ID).
- **DELETE /api/items/:id** - Remove a book from the collection by its index (ID).

The array of books is already defined for you in the `server.js` file, but **you need to implement the logic** for each API endpoint.
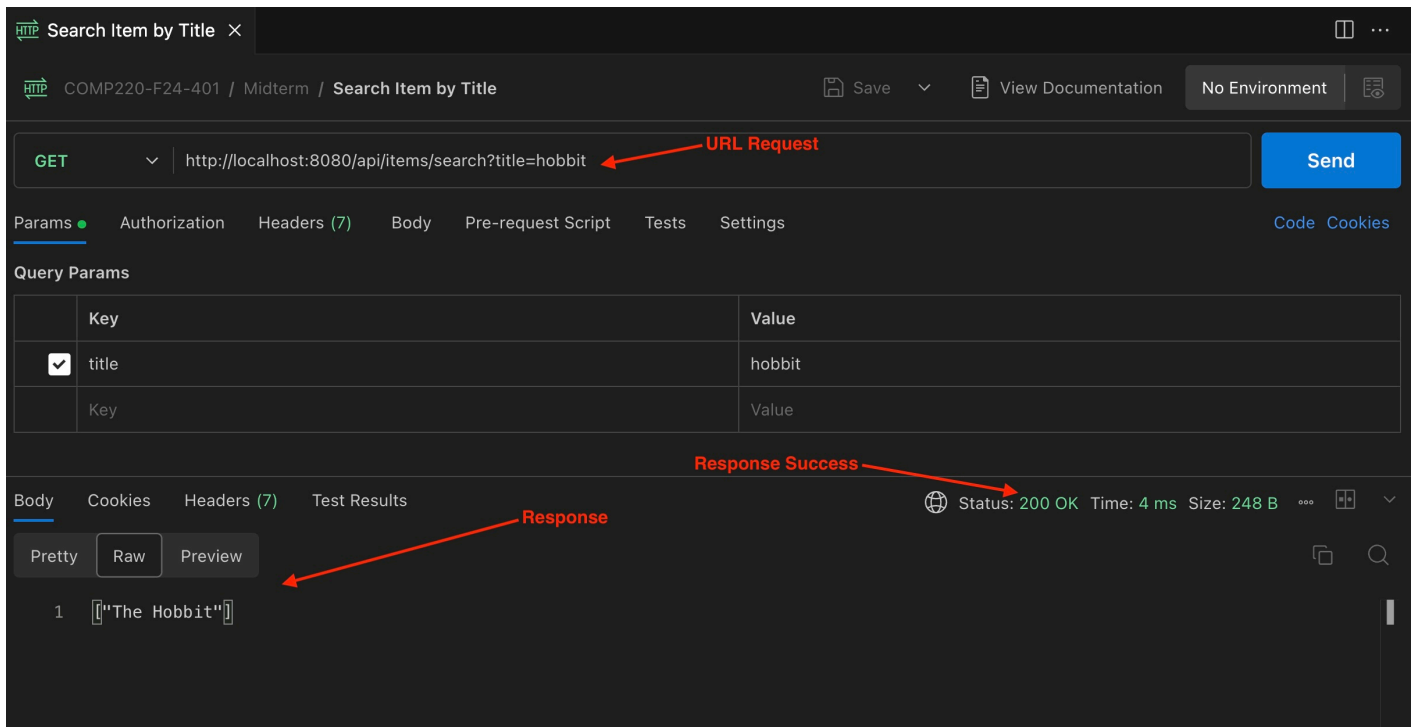
Array Example:

Below is an example of the array you'll be working with:

```javascript
// Array of strings (books)
let books = ['The Hobbit', '1984', 'To Kill a Mockingbird', 'Moby Dick', 'Pride and Prejudice'];
```

Postman Test Example:

Here's an example of what your Postman test should look like when successfully testing your API:

Setup Instructions

1. **Clone the repository from GitHub:**

   Link to repository: https://github.com/CENT-COL/COMP229-F24-MIDTERM

2. **Install dependencies:**

   Run the following command in the root folder to install necessary Node.js packages:

   ```
   npm install
   ```

3. **Run the server:**

   Start the server by running:

   ```
   node server
   ```

   The server will be running on port `8080`.

4. **Test the API:**

   Use API testing tools like Postman, Thunder Client, or similar to test your API implementation. You should:

   - Make a request to each API endpoint.
   - Provide the necessary request body where applicable (for POST and PUT).
   - Capture the successful response in a screenshot.

Submission Requirements

1. **Screenshots:**

   Provide **clear screenshots** of your API tests, showing the following:
   - The API request.
   - The request body (where applicable).
   - The successful response.

2. **Code Submission:**

   Include your code in a **.zip** file, and provide a **GitHub link to your repository containing the project.** Make sure all screenshots are clearly visible and organized in your submission.

Good luck!

Remember, write clean code, validate your inputs, and handle errors gracefully. May your code be bug-free!