

# Book API Project Documentation

## Introduction:

This is a basic RESTful API built using Node.js and Express. The API manages a collection of books and supports CRUD (Create, Read, Update, Delete) operations. It stores the books in memory (no database is used).

## API Endpoints:

GET /books: Retrieve a list of all books.

POST /books: Create a new book. Requires 'title' and 'author' in the request body.

PUT /books/:id: Update an existing book by ID. Requires 'title' and 'author' in the request body.

DELETE /books/:id: Delete a book by ID.

## Sample Requests and Responses:

POST /books (Create a new book):

Request Body:

```
{  
  "title": "Book 3",  
  "author": "Author3"  
}
```

Response:

HTTP/1.1 201 Created

```
{  
  "id": 3,  
  "title": "Book 3",
```

```
"author": "Author3"
}
```

#### Error Handling:

If a request does not provide the required fields (e.g., title or author), the server responds with a 400 Bad Request status and a message indicating which fields are missing. For example:

#### Response:

HTTP/1.1 400 Bad Request

```
{
  "error": "Title and author are required"
}
```

#### Instructions for Running Locally:

1. Clone or download the repository.
2. Install dependencies by running 'npm install'.
3. Start the server by running 'npm start'.
4. The server will run on <http://localhost:3000>.
5. Use tools like Postman or curl to test the API.