

## Project code

```
from flask import Flask, jsonify, request
```

```
app = Flask(__name__)
```

```
# Create some sample data
```

```
books = [  
    {"id": 1, "title": "Book 1", "author": "Author 1"},  
    {"id": 2, "title": "Book 2", "author": "Author 2"},  
    {"id": 3, "title": "Book 3", "author": "Author 3"}  
]
```

```
# GET /books - Get all books
```

```
@app.route('/books', methods=['GET'])
```

```
def get_books():
```

```
    return jsonify(books)
```

```
# GET /books/{id} - Get a specific book
```

```
@app.route('/books/<int:book_id>', methods=['GET'])
```

```
def get_book(book_id):
```

```
    book = next((book for book in books if book['id'] == book_id), None)
```

```
if book:
    return jsonify(book)
return jsonify({'message': 'Book not found'}), 404
```

# POST /books - Add a new book

```
@app.route('/books', methods=['POST'])
```

```
def add_book():
```

```
    data = request.get_json()
```

```
    new_book = {
```

```
        'id': len(books) + 1,
```

```
        'title': data['title'],
```

```
        'author': data['author']
```

```
    }
```

```
    books.append(new_book)
```

```
    return jsonify(new_book), 201
```

# PUT /books/{id} - Update a book

```
@app.route('/books/<int:book_id>', methods=['PUT'])
```

```
def update_book(book_id):
```

```
    data = request.get_json()
```

```
    book = next((book for book in books if book['id'] == book_id), None)
```

```
    if book:
```

```
    book['title'] = data['title']
    book['author'] = data['author']
    return jsonify(book)
return jsonify({'message': 'Book not found'}), 404
```

# DELETE /books/{id} - Delete a book

```
@app.route('/books/<int:book_id>', methods=['DELETE'])
def delete_book(book_id):
    global books
    books = [book for book in books if book['id'] != book_id]
    return jsonify({'message': 'Book deleted'})
```

# Run the application

```
if __name__ == '__main__':
    app.run(debug=True)
```