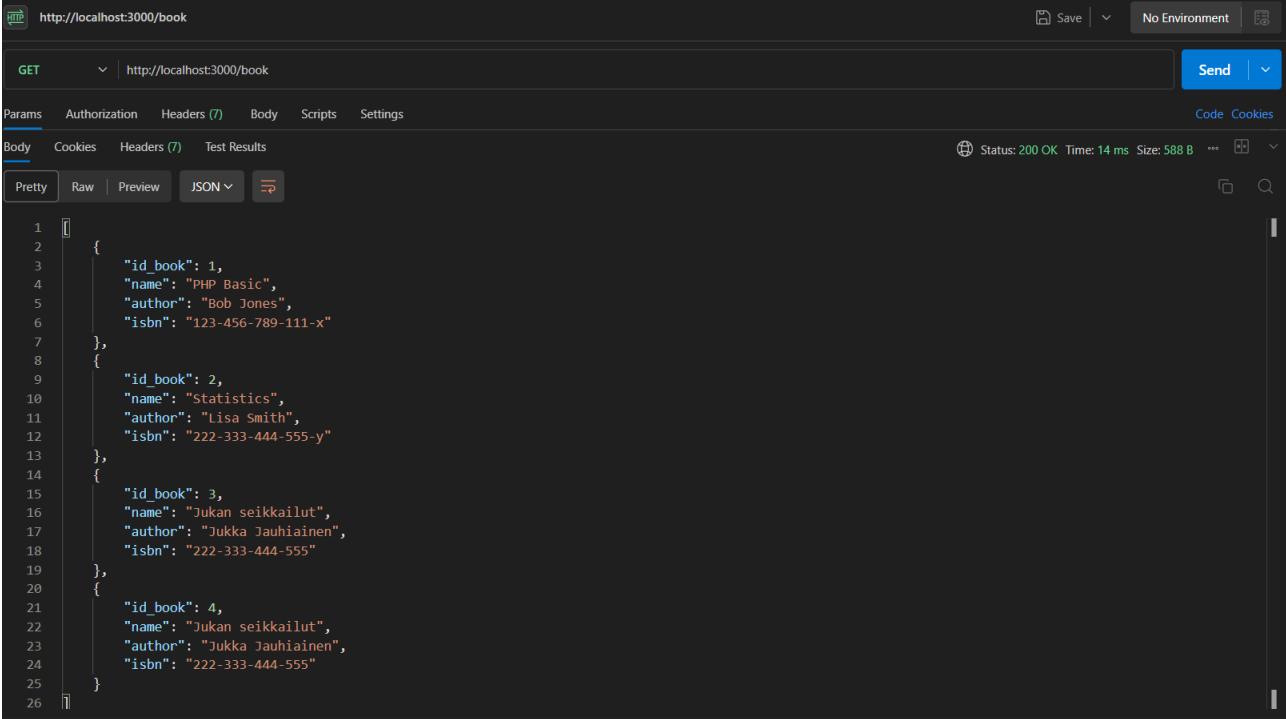


20: Tietokantayhteys ja CRUD Nodella ja Expressillä

Tee tauluihin Expressillä ja Nodella CRUD-operaatiot (Create Read Update Delete). Testaa kaikien toiminta Postmanilla.

GET



HTTP <http://localhost:3000/book>

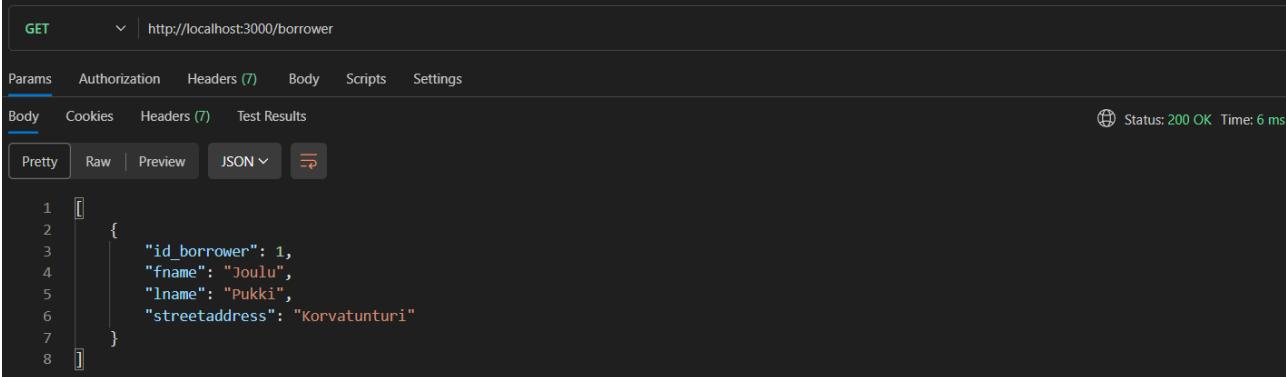
GET | http://localhost:3000/book

Params Authorization Headers (7) Body Scripts Settings

Body Cookies Headers (7) Test Results

Pretty Raw Preview JSON ↻

```
1 [  
2 {  
3   "id_book": 1,  
4   "name": "PHP Basic",  
5   "author": "Bob Jones",  
6   "isbn": "123-456-789-111-x"  
7 },  
8 {  
9   "id_book": 2,  
10  "name": "Statistics",  
11  "author": "Lisa Smith",  
12  "isbn": "222-333-444-555-y"  
13 },  
14 {  
15  "id_book": 3,  
16  "name": "Jukan seikkailut",  
17  "author": "Jukka Jauhainen",  
18  "isbn": "222-333-444-555"  
19 },  
20 {  
21  "id_book": 4,  
22  "name": "Jukan seikkailut",  
23  "author": "Jukka Jauhainen",  
24  "isbn": "222-333-444-555"  
25 }]  
26 ]
```



HTTP <http://localhost:3000/borrower>

GET | http://localhost:3000/borrower

Params Authorization Headers (7) Body Scripts Settings

Body Cookies Headers (7) Test Results

Pretty Raw Preview JSON ↻

```
1 [  
2 {  
3   "id_borrower": 1,  
4   "fname": "Joulu",  
5   "lname": "Pukki",  
6   "streetaddress": "Korvatunturi"  
7 }]  
8 ]
```

POST

The screenshot shows the Postman interface with a successful POST request to `http://localhost:3000/borrower`. The request body contains three fields: `fname` (Petteri), `lname` (Punakuono), and `streetaddress` (Porokatu 6). The response status is 200 OK, time 94 ms, size 343 B. The terminal shows the command `node ./book_borrower start` was run.

```
[{"id": 1, "fname": "Petteri", "lname": "Punakuono", "streetaddress": "Porokatu 6"}]
```

The browser screenshot shows the URL `localhost:3000/borrower`. The page displays the inserted data: [{ "id_borrower": 1, "fname": "Joulu", "lname": "Pukki", "streetaddress": "Korvatunturi" }, { "id_borrower": 2, "fname": "Petteri", "lname": "Punakuono", "streetaddress": "Porokatu 6" }]

The screenshot shows the Postman interface with a successful POST request to `http://localhost:3000/book`. The request body contains three fields: `name` (Pikku), `author` (Kalle), and `isbn` (666-666-666-666). The response status is 200 OK, time 19 ms, size 288 B. The terminal shows the command `node ./book_borrower start` was run.

```
[{"id": 6, "name": "Pikku", "author": "Kalle", "isbn": "666-666-666-666"}]
```

```
[{"id": 6, "name": "Pikku", "author": "Kalle", "isbn": "666-666-666-666"}]
```

PUT

HTTP <http://localhost:3000/book/6>

PUT [▼](#) | http://localhost:3000/book/6

Params Authorization Headers (9) **Body** Scripts Settings

none form-data x-www-form-urlencoded raw binary GraphQL

Key	Value
<input checked="" type="checkbox"/> name	Iso
<input checked="" type="checkbox"/> author	Kalle
<input checked="" type="checkbox"/> isbn	666-666-666-666

Body Cookies Headers (7) Test Results

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS POSTMAN CONSOLE

```
PS C:\Users\seppa\25KURSSIT\Tietokannat25\viikko7\book_borrower> nodemon start
[
  {
    id_book: 3,
    name: 'Jukan seikkailut',
    author: 'Jukka Jauhainen',
    isbn: '222-333-444-555'
  },
  {
    id_book: 4,
    name: 'Jukan seikkailut',
    author: 'Jukka Jauhainen',
    isbn: '222-333-444-555'
  },
  {
    id_book: 5, name: null, author: null, isbn: null
  },
  {
    id_book: 6, name: 'Iso', author: 'Kalle', isbn: '666-666-666-666'
  }
]
GET /book 200 1.928 ms - 472
```

HTTP <http://localhost:3000/borrower/1>

PUT [▼](#) | http://localhost:3000/borrower/1

Params Authorization Headers (9) **Body** Scripts Settings

none form-data x-www-form-urlencoded raw binary GraphQL

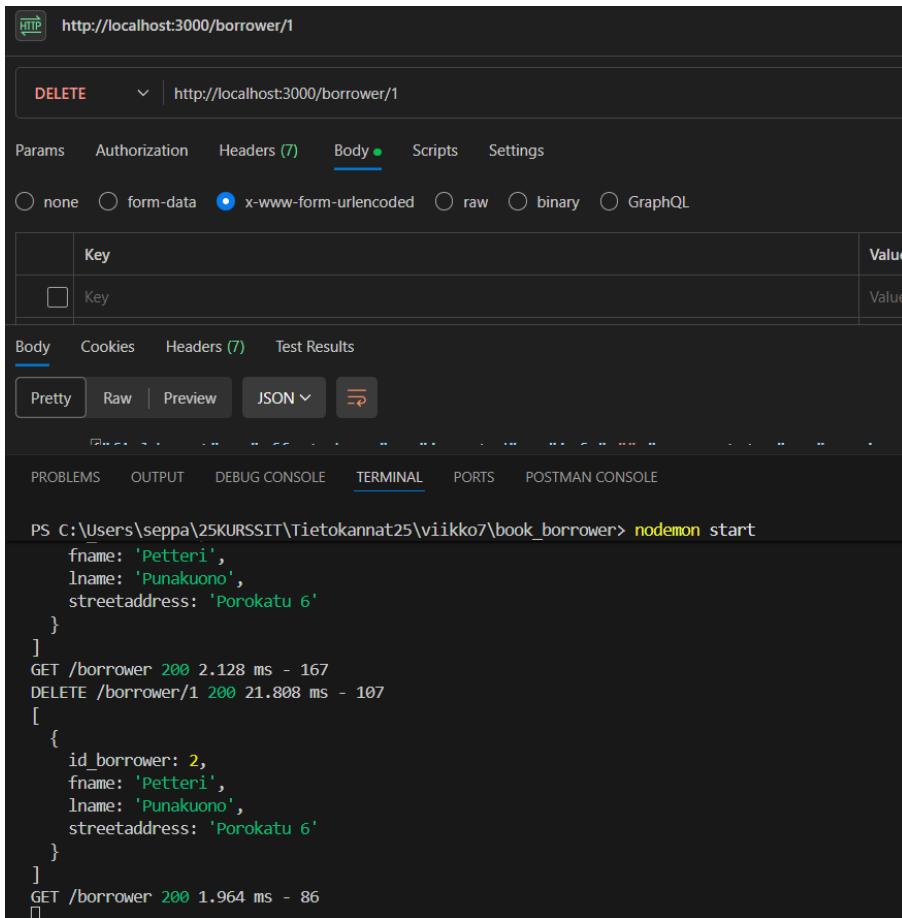
Key	Value
<input checked="" type="checkbox"/> fname	Joulu
<input checked="" type="checkbox"/> lname	Kuusi
<input checked="" type="checkbox"/> streetaddress	Korvatunturi

Body Cookies Headers (7) Test Results

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS POSTMAN CONSOLE

```
PS C:\Users\seppa\25KURSSIT\Tietokannat25\viikko7\book_borrower> nodemon start
GET /book 304 18.935 ms - -
[
  {
    id_borrower: 1,
    fname: 'Joulu',
    lname: 'Kuusi',
    streetaddress: 'Korvatunturi'
  },
  {
    id_borrower: 2,
    fname: 'Petteri',
    lname: 'Punakuono',
    streetaddress: 'Porokatu 6'
  }
]
GET /borrower 200 2.128 ms - 167
```

DELETE



HTTP <http://localhost:3000/borrower/1>

DELETE <http://localhost:3000/borrower/1>

Params Authorization Headers (7) **Body** Scripts Settings

none form-data x-www-form-urlencoded raw binary GraphQL

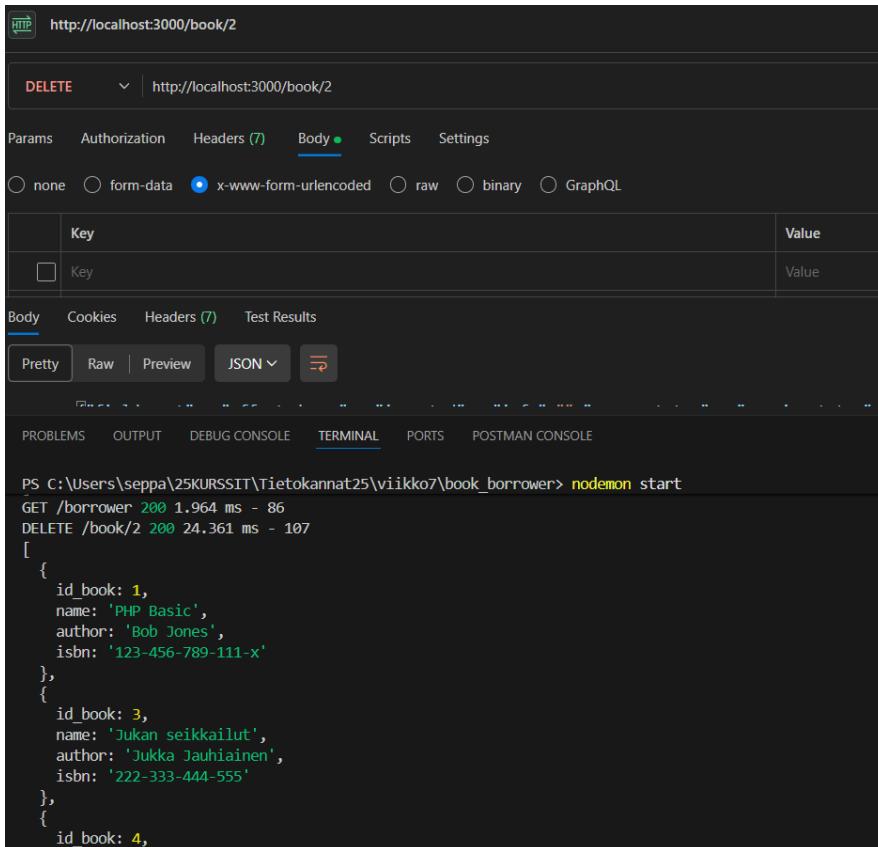
Key	Value
Key	

Body Cookies Headers (7) Test Results

Pretty Raw Preview JSON ↻

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS POSTMAN CONSOLE

```
PS C:\Users\seppa\25KURSSIT\Tietokannat25\viikko7\book_borrower> nodemon start
  fname: 'Petteri',
  lname: 'Punakuono',
  streetaddress: 'Porokatu 6'
}
]
GET /borrower 200 2.128 ms - 167
DELETE /borrower/1 200 21.808 ms - 107
[
  {
    id_borrower: 2,
    fname: 'Petteri',
    lname: 'Punakuono',
    streetaddress: 'Porokatu 6'
  }
]
GET /borrower 200 1.964 ms - 86
◻
```



HTTP <http://localhost:3000/book/2>

DELETE <http://localhost:3000/book/2>

Params Authorization Headers (7) **Body** Scripts Settings

none form-data x-www-form-urlencoded raw binary GraphQL

Key	Value
Key	

Body Cookies Headers (7) Test Results

Pretty Raw Preview JSON ↻

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS POSTMAN CONSOLE

```
PS C:\Users\seppa\25KURSSIT\Tietokannat25\viikko7\book_borrower> nodemon start
GET /borrower 200 1.964 ms - 86
DELETE /book/2 200 24.361 ms - 107
[
  {
    id_book: 1,
    name: 'PHP Basic',
    author: 'Bob Jones',
    isbn: '123-456-789-111-x'
  },
  {
    id_book: 3,
    name: 'Jukan seikkailut',
    author: 'Jukka Jauhainen',
    isbn: '222-333-444-555'
  },
  {
    id_book: 4,
    name: 'Jukan seikkailut',
    author: 'Jukka Jauhainen',
    isbn: '222-333-444-555'
  }
]
```