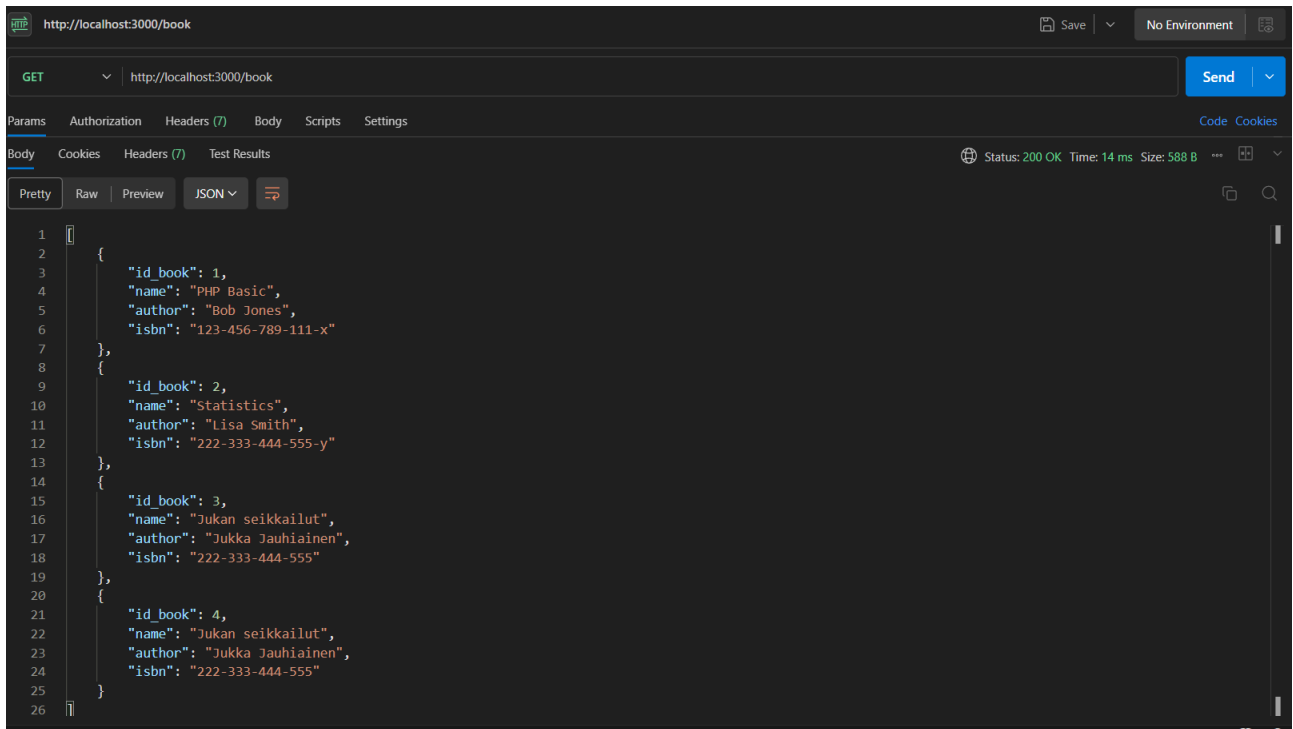


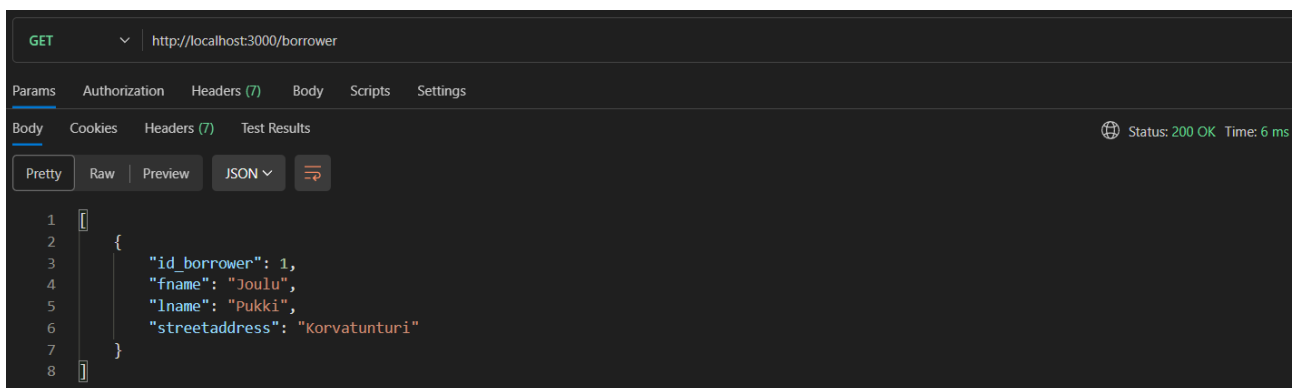
20: Tietokantayhteys ja CRUD Nodella ja Expressillä

Tee tauluihin Expressillä ja Nodella CRUD-operaatiot (**C**reate **R**ead **U**pdate **D**elese). Testaa kaiken toiminta Postmanilla.

GET



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



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

POST

http://localhost:3000/borrower

Save

No Environment

POSThttp://localhost:3000/borrower

Send

ParamsAuthorizationHeaders (9)BodyScriptsSettingsCode

none

form-data

x-www-form-urlencoded

raw

binary

GraphQL

☒

fname

☒

lname

☒

streetaddress

Key

Value

Petteri

Punakuono

Porokatu 6

BodyCookiesHeaders (7)Test Results

+

Status: 200 OKTime: 94 msSize: 343 B

...

Code

PrettyRawPreviewJSON

```
1 {
2   "fieldCount": 0,
3   "affectedRows": 1,
4   "insertId": 2,
5   "info": "",
6   "serverStatus": 2,
7   "warningStatus": 0,
8   "changedRows": 0
9 }
```

PROBLEMSOUTPUTDEBUG CONSOLETERMINALPORTSPOSTMAN CONSOLE

node + - - -

PS C:\Users\seppa\25KURSSIT\Tietokannat25\viikko7\book_borrower> node . start
}
}
GET /borrower 200 2.091 ms - 82
POST /borrower 200 2.241 ms - 210
[nodemon] restarting due to changes...
[nodemon] starting node ./bin/www start
POST /borrower 200 60.785 ms - 107

← → ↺

localhost:3000/borrower

OAMK

Oamkilaisille - oamk

Lukkarikone

Moodle

Kaunista koodia ✓

[
 {
 "id_borrower": 1,
 "fname": "Joulu",
 "lname": "Pukki",
 "streetaddress": "Korvatunturi"
 },
 {
 "id_borrower": 2,
 "fname": "Petteri",
 "lname": "Punakuono",
 "streetaddress": "Porokatu 6"
 }
]

http://localhost:3000/book

Save

No Environment

POSThttp://localhost:3000/book

Send

ParamsAuthorizationHeaders (9)BodyScriptsSettingsCode

none

form-data

x-www-form-urlencoded

raw

binary

GraphQL

☒

name

☒

author

☒

isbn

Key

Value

Pikku

Kalle

666-666-666-666

BodyCookiesHeaders (7)Test Results

+

Status: 200 OKTime: 19 msSize: 288 B

...

Code

PROBLEMSOUTPUTDEBUG CONSOLETERMINALPORTSPOSTMAN CONSOLE

node + - - -

PS C:\Users\seppa\25KURSSIT\Tietokannat25\viikko7\book_borrower> node . start
{ id_book: 5, name: null, author: null, isbn: null },
{
 id_book: 6,
 name: 'Pikku',
 author: 'Kalle',
 isbn: '666-666-666-666'
}
}
GET /book 200 1.863 ms - 474
[

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

PUT

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 Jauhiainen',
  isbn: '222-333-444-555'
},
{
  id_book: 4,
  name: 'Jukan seikkailut',
  author: 'Jukka Jauhiainen',
  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
[]
```

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
<input type="checkbox"/> Key	Value


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
<input type="checkbox"/> Key	Value

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 Jauhiainen',
    isbn: '222-333-444-555'
  },
  {
    id_book: 4,
```