

16. Tietokantayhteys ja CRUD Nodella ja Expressillä

GET-metodi:

```
4
5 router.get('/',
6   function (request, response) {
7     book.getAll(function (err, dbResult) {
8       if (err) {
9         response.json(err);
10      } else {
11        console.log(dbResult);
12        response.json(dbResult);
13      }
14    })
15  });
16
```

The screenshot shows a REST client interface with a GET request to `localhost:3000/book` sent successfully. The response is a JSON array of two book objects.

Query Params

KEY	VALUE	DESCRIPTION	...	Bulk Edit
Key	Value	Description		

Body | Cookies | Headers (7) | Test Results

200 OK 56 ms 401 B Save Response

Pretty Raw Preview Visualize 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 }
```

POST-metodi:

```
28  
29 router.post('/',  
30 function(request, response) {  
31   book.add(request.body, function(err, dbResult) {  
32     if (err) {  
33       response.json(err);  
34     } else {  
35       response.json(request.body);  
36     }  
37   });  
38 });  
39
```

POST localhost:3000/book Send

Params Auth Headers (9) **Body** Pre-req. Tests Settings Cookies

x-www-form-urlencoded

<input checked="" type="checkbox"/>	name	Hobitti - Sinne ja takaisin
<input checked="" type="checkbox"/>	author	J.R.R.Tolkien
<input checked="" type="checkbox"/>	isbn	1234

Body 200 OK 14 ms 312 B Save Response

Pretty Raw Preview Visualize JSON

```
1 {  
2   "name": "Hobitti - Sinne ja takaisin",  
3   "author": "J.R.R.Tolkien",  
4   "isbn": "1234"  
5 }
```

PUT-metodi:

```
router.put('/:id',
function(request, response) {
  book.update(request.params.id, request.body, function(err, dbResult) {
    if (err) {
      response.json(err);
    } else {
      response.json(dbResult);
    }
  });
});
```

PUT localhost:3000/book/3 Send

Params Auth Headers (9) **Body** Pre-req. Tests Settings Cookies

x-www-form-urlencoded

	KEY	VALUE	DESCRIPTION	...	Bulk Edit
<input checked="" type="checkbox"/>	name	Taru Sormusten Herrasta			
<input checked="" type="checkbox"/>	author	J.R.R.Tolkien			
<input checked="" type="checkbox"/>	isbn	1233			
	Key	Value	Description		

Body 200 OK 10 ms 383 B Save Response

Pretty Raw Preview Visualize JSON

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

Ennen – jälkeen:

```
[mysql> select * from book;
+-----+-----+-----+-----+
| id_book | name                | author      | isbn                |
+-----+-----+-----+-----+
| 1 | PHP Basic           | Bob Jones   | 123-456-789-111-x |
| 2 | Statistics          | Lisa Smith  | 222-333-444-555-y |
| 3 | NULL                | NULL        | NULL                |
| 4 | Hobitti - Sinne ja takaisin | J.R.R.Tolkien | 1234                |
+-----+-----+-----+-----+
4 rows in set (0,00 sec)

[mysql> select * from book;
+-----+-----+-----+-----+
| id_book | name                | author      | isbn                |
+-----+-----+-----+-----+
| 1 | PHP Basic           | Bob Jones   | 123-456-789-111-x |
| 2 | Statistics          | Lisa Smith  | 222-333-444-555-y |
| 3 | Taru Sormusten Herrasta | J.R.R.Tolkien | 1233                |
| 4 | Hobitti - Sinne ja takaisin | J.R.R.Tolkien | 1234                |
+-----+-----+-----+-----+
4 rows in set (0,00 sec)
```

DELETE-metodi:

```
router.delete('/:id',
function(request, response) {
  book.delete(request.params.id, function(err, dbResult) {
    if (err) {
      response.json(err);
    } else {
      response.json(dbResult);
    }
  });
});
```

DELETE localhost:3000/book/3 Send

Params Auth Headers (7) **Body** Pre-req. Tests Settings Cookies

x-www-form-urlencoded

KEY	VALUE	DESCRIPTION	...	Bulk Edit
Key	Value	Description		

Body 200 OK 18 ms 326 B Save Response

Pretty Raw Preview Visualize JSON

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

Ennen - jälkeen:

```
[mysql> select * from book;
+-----+-----+-----+-----+
| id_book | name                | author    | isbn                |
+-----+-----+-----+-----+
| 1       | PHP Basic           | Bob Jones | 123-456-789-111-x   |
| 2       | Statistics          | Lisa Smith | 222-333-444-555-y   |
| 3       | Taru Sormusten Herrasta | J.R.R.Tolkien | 1233                |
| 4       | Hobitti - Sinne ja takaisin | J.R.R.Tolkien | 1234                |
+-----+-----+-----+-----+
4 rows in set (0,00 sec)

[mysql> select * from book;
+-----+-----+-----+-----+
| id_book | name                | author    | isbn                |
+-----+-----+-----+-----+
| 1       | PHP Basic           | Bob Jones | 123-456-789-111-x   |
| 2       | Statistics          | Lisa Smith | 222-333-444-555-y   |
| 4       | Hobitti - Sinne ja takaisin | J.R.R.Tolkien | 1234                |
+-----+-----+-----+-----+
3 rows in set (0,00 sec)
```