

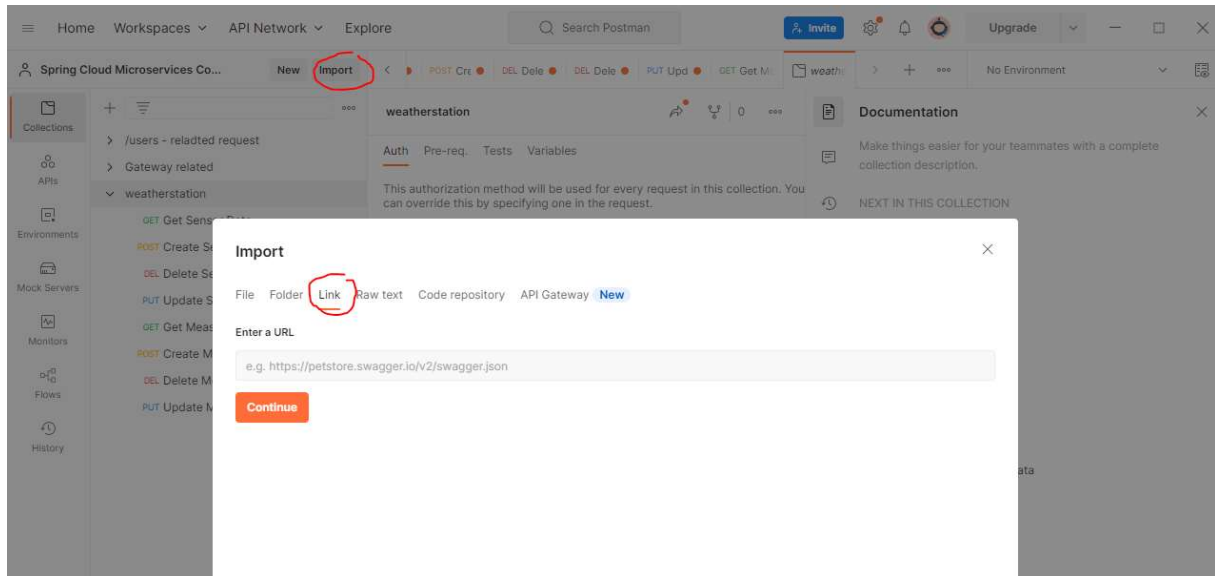
Durchführung Beispiele

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Alle Ausgaben sind mit Postman durchgeführt.

Folgend finden Sie einen Link, den man in Postman einspielen kann und dadurch alle Vorlagen für die Durchführung der Abfragen erhalten kann.

<https://www.getpostman.com/collections/b6d2e73dd7bc6d54f141>



CREAT

Anlegen Sensor:

The screenshot shows a REST client interface with a POST request to `http://localhost:8082/sensors`. The request body is a JSON object:

```
1 {
2   "name": "sensor_bedroom",
3   "location": "Sankt Veit",
4   "active": true,
5   "sensorType": "INDOOR"
6 }
```

The response is displayed in the bottom pane, showing a 201 status code and a JSON object with links to the created sensor and its measurements:

```
1 {
2   "name": "sensor_bedroom",
3   "location": "Sankt Veit",
4   "active": true,
5   "sensorType": "INDOOR",
6   "_links": {
7     "self": {
8       "href": "http://192.168.1.141:49725/sensors/4"
9     },
10    "sensor": {
11      "href": "http://192.168.1.141:49725/sensors/4"
12    },
13    "measurements": {
14      "href": "http://192.168.1.141:49725/sensors/4/measurements"
15    }
16  }
17 }
```

Ausgabe Datenbank:

The screenshot shows a database management tool interface. The SQL query editor contains the following queries:

```
1 select * from measurements
2
3 select * from sensors
```

The Data Output pane displays a table with the following data:

	id [PK] bigint	active boolean	location character varying (255)	name character varying (255)	sensor_type integer
1	2	true	Langenlois	sensor_garden	1
2	3	true	Pinkafeld	sensor_bathroom	0
3	4	true	Sankt Veit	sensor_bedroom	0

Anlegen Messung:

POST http://localhost:8082/measurements Send

Params Authorization Headers (10) **Body** Pre-request Script Tests Settings Cookies

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

```
1 {
2   "sensor": "http://192.168.1.141:49725/sensors/4",
3   "timeStamp": "2018-01-13T17:09:42.411",
4   "temperature": 18.1,
5   "humidity": 70.12
6 }
```

Body Cookies Headers (7) Test Results 201 Created 36 ms 647 B Save Response

Pretty Raw Preview Visualize JSON

```
1 {
2   "timeStamp": "2018-01-13T17:09:42.411",
3   "temperature": 18.1,
4   "humidity": 70.12,
5   "_links": {
6     "self": {
7       "href": "http://192.168.1.141:49725/measurements/9"
8     },
9     "measurement": {
10      "href": "http://192.168.1.141:49725/measurements/9"
11    },
12    "sensor": {
13      "href": "http://192.168.1.141:49725/measurements/9/sensor"
14    }
15  }
16 }
```

Ausgabe Datenbank

Database-swvs/postgres@PostgreSQL 14

Query Query History Scratch Pad

```
1 select * from measurements
2
3 select * from sensors
```

Data Output Messages Notifications

	id [PK] bigint	humidity double precision	temperature double precision	time_stamp timestamp without time zone	sensor_id bigint
1	4	12.12	12.1	2018-01-13 17:09:42.411	[null]
2	8	12	12.1	2018-01-13 17:09:42.411	2
3	9	70.12	18.1	2018-01-13 17:09:42.411	4

Sensor 2 löschen:

DELETE

▼

http://localhost:8082/sensors/2

Send

▼

Params

Authorization

Headers (6)

Body

Pre-request Script

Tests

Settings

Cookies

Query Params

KEY	VALUE	DESCRIPTION	...	Bulk Edit
Key	Value	Description		

Ausgabe Datenbank:

Query Query History Scratch Pad x

```

1 select * from measurements
2
3 select * from sensors

```

Data Output Messages Notifications

	id [PK] bigint	active boolean	location character varying (255)	name character varying (255)	sensor_type integer
1	3	true	Pinkafeld	sensor_bathroom	0
2	4	true	Sankt Veit	sensor_bedroom	0

Messung 4 Löschen:

DELETE ⌵ http://localhost:8082/measurements/4 Send ⌵

Params Authorization Headers (6) Body Pre-request Script Tests Settings Cookies

Query Params

KEY	VALUE	DESCRIPTION	...	Bulk Edit
Key	Value	Description		

Body Cookies Headers (4) Test Results 204 No Content 18 ms 153 B Save Response ⌵

Pretty Raw Preview Visualize Text ⌵ 📄 🔍

1

Ausgabe Datenbank:

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Query Query History ↗ Scratch Pad × ↗

```
1 select * from measurements
2
3 select * from sensors
```

Data Output Messages Notifications ↗

	Id [PK] bigint	humidity double precision	temperature double precision	time_stamp timestamp without time zone	sensor_id bigint
1	9	70.12	18.1	2018-01-13 17:09:42.411	4
2	10	70.12	17.1	2019-01-13 17:09:42.411	3
3	11	70.12	18.1	2019-05-13 17:09:42.411	3

UPDATE

Update Sensor 1:

The screenshot shows a REST client interface with a PUT request to `http://localhost:8082/sensors/1`. The request body is a JSON object:

```
{
  "name": "sensor_garden",
  "location": "Pinkafeld",
  "active": true,
  "sensorType": "OUTDOOR"
}
```

The response is a JSON object with the following structure:

```
{
  "name": "sensor_garden",
  "location": "Pinkafeld",
  "active": true,
  "sensorType": "OUTDOOR",
  "_links": {
    "self": {
      "href": "http://192.168.1.141:49725/sensors/5"
    },
    "sensor": {
      "href": "http://192.168.1.141:49725/sensors/5"
    },
    "measurements": {
      "href": "http://192.168.1.141:49725/sensors/5/measurements"
    }
  }
}
```

Ausgabe Datenbank:

The screenshot shows a database query tool interface. The query history contains the following SQL queries:

```
1 select * from measurements
2
3 select * from sensors
```

The data output shows a table with the following columns and data:

	id [PK] bigint	active boolean	location character varying (255)	name character varying (255)	sensor_type integer
1	3	true	Pinkafeld	sensor_bathroom	0
2	4	true	Sankt Veit	sensor_bedroom	0
3	5	true	Pinkafeld	sensor_garden	1

Update Messung 9:

The screenshot shows a REST client interface with a PUT request to `http://localhost:8082/measurements/9`. The request body is a JSON object with the following fields:

```
1 {
2   "sensor": "http://192.168.1.141:60061/sensors/1",
3   "timeStamp": "2022-01-13T17:09:42.411",
4   "temperature": 15.1,
5   "humidity": 12.00
6 }
```

The response is a 200 OK status with a response time of 39 ms and a body size of 641 B. The response body is a JSON object with the following fields:

```
1 {
2   "timeStamp": "2022-01-13T17:09:42.411",
3   "temperature": 15.1,
4   "humidity": 12.0,
5   "_links": {
6     "self": {
7       "href": "http://192.168.1.141:49725/measurements/9"
8     },
9     "measurement": {
10      "href": "http://192.168.1.141:49725/measurements/9"
11    },
12    "sensor": {
13      "href": "http://192.168.1.141:49725/measurements/9/sensor"
14    }
15  }
16 }
```

Ausgabe Datenbank:

The screenshot shows a database query tool interface. The query history shows two queries:

```
1 select * from measurements
2
3 select * from sensors
```

The data output shows the results of the first query, which is a table with 7 columns: `id` (PK), `humidity`, `temperature`, `time_stamp`, and `sensor_id`. The results are as follows:

	id [PK] bigint	humidity double precision	temperature double precision	time_stamp timestamp without time zone	sensor_id bigint
1	10	70.12	17.1	2019-01-13 17:09:42.411	3
2	11	70.12	18.1	2019-05-13 17:09:42.411	3
3	9	12	15.1	2022-01-13 17:09:42.411	4

READ

Alle Sensoren Ausgeben:

GET

http://localhost:8082/sensors

Send

Params

Authorization

Headers (8)

Body

Pre-request Script

Tests

Settings

Cookies

Query Params

KEY	VALUE	DESCRIPTION	...	Bulk Edit
Key	Value	Description		

Body

Cookies

Headers (6)

Test Results

200 OK 18 ms 1.96 KB Save Response

Pretty

Raw

Preview

Visualize

JSON

```
1  {
2    "_embedded": {
3      "sensors": [
4        {
5          "name": "sensor_bathroom",
6          "location": "Pinkafeld",
7          "active": true,
8          "sensorType": "INDOOR",
9          "_links": {
10             "self": {
11               "href": "http://192.168.1.141:49725/sensors/3"
12             },
13             "sensor": {
14               "href": "http://192.168.1.141:49725/sensors/3"
15             },
16             "measurements": {
17               "href": "http://192.168.1.141:49725/sensors/3/measurements"
18             }
19           }
20         },
21         {
22           "name": "sensor_bedroom",
23           "location": "Sankt Veit",
24           "active": true,
25           "sensorType": "INDOOR",
26           "_links": {
27             "self": {
28               "href": "http://192.168.1.141:49725/sensors/4"
29             },
30             "sensor": {
31               "href": "http://192.168.1.141:49725/sensors/4"
32             },
33             "measurements": {
34               "href": "http://192.168.1.141:49725/sensors/4/measurements"
35             }
36           }
37         },
38         {
39           "name": "sensor_garden",
40           "location": "Pinkafeld",
41           "active": true,
42           "sensorType": "OUTDOOR",
43           "_links": {
44             "self": {
45               "href": "http://192.168.1.141:49725/sensors/5"
46             },
47             "sensor": {
48               "href": "http://192.168.1.141:49725/sensors/5"
49             },
50             "measurements": {
51               "href": "http://192.168.1.141:49725/sensors/5/measurements"
52             }
53           }
54         }
55       ]
56     }
57   }
```


Alle Messungen Ausgeben:

GET

http://localhost:8082/measurements

Send

Params

Authorization

Headers (6)

Body

Pre-request Script

Tests

Settings

Cookies

Query Params

KEY	VALUE	DESCRIPTION	...	Bulk Edit
Key	Value	Description		

Body

Cookies

Headers (6)

Test Results

200 OK 18 ms 1.86 KB Save Response

Pretty

Raw

Preview

Visualize

JSON

```
1  {
2    "_embedded": {
3      "measurements": [
4        {
5          "timeStamp": "2019-01-13T17:09:42.411",
6          "temperature": 17.1,
7          "humidity": 70.12,
8          "_links": {
9            "self": {
10              "href": "http://192.168.1.141:49725/measurements/10"
11            },
12            "measurement": {
13              "href": "http://192.168.1.141:49725/measurements/10"
14            },
15            "sensor": {
16              "href": "http://192.168.1.141:49725/measurements/10/sensor"
17            }
18          }
19        },
20        {
21          "timeStamp": "2019-05-13T17:09:42.411",
22          "temperature": 18.1,
23          "humidity": 70.12,
24          "_links": {
25            "self": {
26              "href": "http://192.168.1.141:49725/measurements/11"
27            },
28            "measurement": {
29              "href": "http://192.168.1.141:49725/measurements/11"
30            },
31            "sensor": {
32              "href": "http://192.168.1.141:49725/measurements/11/sensor"
33            }
34          }
35        },
36        {
37          "timeStamp": "2022-01-13T17:09:42.411",
38          "temperature": 15.1,
39          "humidity": 12.0,
40          "_links": {
41            "self": {
42              "href": "http://192.168.1.141:49725/measurements/9"
43            },
44            "measurement": {
45              "href": "http://192.168.1.141:49725/measurements/9"
46            },
47            "sensor": {
48              "href": "http://192.168.1.141:49725/measurements/9/sensor"
49            }
50          }
51        }
52      ]
53    }
54  }
```