

# DEVI project

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# Chapter 1

## Introduction

# Chapter 2

## Database

# Chapter 3

## Error pages

### 3.1 Error 418 Teapot

**route:** `/teapot`

This error shows up when the HTCPCP requests returns an error.

## Chapter 4

# DEVI Queries

### 4.1 Description

# Chapter 5

## Sheets Module

### 5.1 Description



# Chapter 6

## Pages Module

### 6.1 Description

Graphical representation of data or forms to insert.

### 6.2 Table

#### 6.2.1 table

##### Description

Table with limited amount of columns.

**This component cannot be combined with any other!**

##### Body parameters

**columns:** column to show, If you put '\*' show all columns

##### Example body:

```
1  {
2      "columns": [
3          "name",
4          "price",
5          "category"
6      ]
7  }
```

#### 6.2.2 extendedTable

##### Description

Table with limited amount of columns and after click row it's redirects to another page.

This component cannot be combined with any other!

**Body parameters**

**columns:** column to show, If you put '\*' show all columns

**onRowClick:** target page

**Example body:**

```
1  {
2      "columns": [
3          "name",
4          "lastName",
5          "address"
6      ],
7      "onRowClick": "clientView"
8  }
```

## 6.3 Forms

## 6.4 Views

# Chapter 7

## Commands

### 7.1 Admin

Commands to administrate system. **NOT for user!**

#### 7.1.1 /admin/addNewCompany

##### Description

Add new company to system.

##### METHOD: PUT

##### Body parameters

**name:** name of company and database

**email:** company email

**user:** user name for first user

**pass:** password for first user

**key:** admin key

**Return:** NULL

##### Example body:

```
1  {
2      "name": "myCompany",
3      "email": "mycompanygmail.com",
4      "user": "admin",
5      "pass": "1qazXSW@",
6      "key": "<PASTEadminKEYhere>"
7  }
```

## 7.2 SIN

**SIN** (Securry Indentyfication Number) - token to indentyfication user. It store user ip, user browser agent, user name and DB name. This number have 5 minutes time of live. Every call of **/getSIN** extends this time by next 5 minutes. You may have only one SIN per user.

### 7.2.1 /getSIN

#### Description

Get SIN from server or when you have it extend it expire time.

**METHOD: POST**

#### Haeder parameters

**User-Agent:** browser name (It's automaticly added by our browser)

#### Body parameters

**user:** user name

**pass:** user password

**db:** admin key

#### Return:

**sin:** your SIN

#### Example body:

```
1  {
2      "user": "admin",
3      "pass": "1qazXSW@",
4      "db": "myCompany"
5  }
```

#### Example response:

```
1  {
2      "sin": "<yourSIN>"
3  }
```

### 7.2.2 /dropSIN

#### Description

Drop your SIN from server. It work like logout.

**METHOD: DELETE**

#### Body parameters

**SIN:** SIN number

**Return:** NULL

#### Example body:

```

1  {
2      "sin": "<yourSIN>"
3  }

```

## 7.3 Tables

### 7.3.1 /tables

#### Description

Returns the names of all tables.

**METHOD: POST**

#### Body parameters

**SIN:** SIN number

#### Return:

**tables:** array with tables names

#### Example body:

```

1  {
2      "sin": "<yourSIN>"
3  }

```

#### Example response:

```

1  {
2      "tables": [
3          "clients",
4          "employees",
5          "products"
6      ]
7  }

```

### 7.3.2 /tables/add

#### Description

Add new table.

Name parameter cannot start with "log\_" or "system\_" or "dic\_"

**METHOD: PUT**

#### Body parameters

**name:** table name

**SIN:** SIN number

**Return:** NULL

#### Example body:

```

1  {
2      "name": "suppliers",
3      "sin": "<yourSIN>"
4  }

```

### 7.3.3 /tables/<table>/addColumn

#### Description

Add new column to table.

'ID' is not allowed name of column.

Allowed types:

- INT - integer
- TEXT - text
- DATETIME - date and time
- TIME - time
- DATE - date
- FLOAT - floating point number
- BOOL - true/false value
- KEY - key for relations with other table

#### METHOD: PUT

#### URL parameters

**table:** table name

#### Body parameters

**name:** column name

**type:** column type.

**SIN:** SIN number

**\*reference:** name table of reference. Only for KEY

\* - optional

**Return:** NULL

#### Example body:

```

1  {
2      "name": "price",
3      "type": "INT",
4      "sin": "<yourSIN>"
5  }

```

```

1  {
2      "name": "client",
3      "type": "KEY",
4      "references": "clients",
5      "sin": "<yourSIN>"
6  }

```

### 7.3.4 /tables/<table>/insert

#### Description

Insert new row into table

**METHOD:** PUT

#### URL parameters

**table:** table name

#### Body parameters

**data:** assoc array key is named like column

**SIN:** SIN number

The name of the column you are inserting the value into is name of parameter.

You can insert more than one value, but only one row. Values you do not send will be set to NULL.

**Return:** NULL

#### Example body:

```

1  {
2      "data":
3      {
4          "name": "Bob",
5          "lastName": "Smith",
6          "phone": "123987465"
7      },
8      "sin": "<yourSIN>"
9  }

```

### 7.3.5 /tables/<table>/update/<columnID>

#### Description

Update row.

**METHOD:** POST

#### URL parameters

**table:** table name

**columnID:** column ID

#### Body parameters

**SIN:** SIN number

**data:** assoc array key is named like column

**Return:** NULL

**Example body:**

```
1  {
2      "data":
3      {
4          "name": "Bob",
5          "lastName": "Smith",
6          "phone": "987123456 "
7      },
8      "sin": "<yourSIN>"
9  }
```

### 7.3.6 /tables/<table>/delete/<columnID>

#### Description

Delete row.

**METHOD:** DELETE

#### URL parameters

**table:** table name

**columnID:** column ID

#### Body parameters

**SIN:** SIN number

**Return:** NULL

**Example body:**

```
1  {
2      "sin": "<yourSIN>"
3  }
```

### 7.3.7 /tables/<table>/select/<columnID>

#### OUTDATED

#### Description

Select row.

**METHOD:** POST

#### URL parameters

**table:** table name

**columnID:** column ID

#### Body parameters

**SIN:** SIN number



**Return:** Name of cell is name of parameter

### 7.3.8 /tables/<table>/select/all

#### Description

Select all row from table.

**METHOD:** POST

#### URL parameters

**table:** table name

#### Query parameters

**\*limit:** records per page

**\*page:** page number

**\*orderBy:** column name

**\*orderByType:** ASC/DESC

**\*** - optional

#### Body parameters

**SIN:** SIN number

**\*query:** array: key - column name; value - your parameter

#### Return:

**Legend:** array contain name of all columes

**Types:** array contain type of all columes. Each value is array with values order like columns at Legend parameter.

Next parameters name 'row' and it number (starts from 0). Each value is array with values order like columns at Legend parameter.

#### Example body:

```
1  {
2      "sin": "<yourSIN>"
3  }
```

```
1  {
2      "query":
3      {
4          "name": "Bob",
5          "lastName": "Smith"
6      },
7      "sin": "<yourSIN>"
8  }
```

#### Example response:

```
1  {
2      "Legend": [
3          "name",
```

```

4         "lastName",
5         "phone"
6     ],
7     "Types": [
8         "TEXT",
9         "TEXT",
10        "INT"
11    ],
12    "row0": [
13        "Bob",
14        "Smith",
15        "123098822"
16    ],
17    "row1": [
18        "Anna",
19        "Smith",
20        "123788822"
21    ],
22    "row2": [
23        "Bob",
24        "Smith",
25        "111222333"
26    ],
27    "row4": [
28        "Tom",
29        "White",
30        "111222333"
31    ],
32 }

```

### 7.3.9 /tables/<table>/alter

#### Description

Change name and type of column.

**METHOD:** POST

#### URL parameters

**table:** table name

#### Body parameters

**name:** actual name of column

**newName:** new name of column. If you would not change name send actual

**newType:** new type of column. If you would not change type send actual

**SIN:** SIN number

**Return:** NULL

**Example body:**

```

1  {
2      "name": "pirec",
3      "newName": "price",
4      "newType": "INT",
5      "sin": "<yourSIN>"
6  }

```

### 7.3.10 /tables/<table>/rename

#### Description

Rename table.

**METHOD: POST**

#### URL parameters

**table:** table name

#### Body parameters

**name:** new name of table

**SIN:** SIN number

**Return:** NULL

#### Example body:

```

1  {
2      "name": "products",
3      "sin": "<yourSIN>"
4  }

```

### 7.3.11 /tables/<table>/dropColumn

#### Description

Delete column.

**METHOD: DELETE**

#### URL parameters

**table:** table name

#### Body parameters

**name:** name of column

**SIN:** SIN number

**Return:** NULL

#### Example body:

```

1  {
2      "name": "phone",
3      "sin": "<yourSIN>"
4  }

```

### 7.3.12 /tables/<table>/dropTable

#### Description

Delete table.

**METHOD:** DELETE

#### URL parameters

**table:** table name

#### Body parameters

**SIN:** SIN number

**Return:** NULL

**Example body:**

```
1  {
2      "sin": "<yourSIN>"
3  }
```

### 7.3.13 /tables/DictionaryAdd

#### Description

Add dictionary table.

**METHOD:** PUT

#### Body parameters

**name:** table name

**SIN:** SIN number

**Return:** NULL

**Example body:**

```
1  {
2      "name": "status",
3      "sin": "<yourSIN>"
4  }
```

## 7.4 Search

### 7.4.1 /search/<phrase>

#### Description

Search phrase in all tables.

**METHOD:** POST

#### URL parameters

**phrase:** phrase

#### Body parameters

**SIN:** SIN number

**Return:**

Returning array named as table containing data like /tables/<table>/select/all

**Example body:**

```
1  {
2      "sin": "<yourSIN>"
3  }
```

**Example response:**

```
1  {
2      "clients":{
3          "Legend": [
4              "name",
5              "lastName",
6              "phone"
7          ],
8          "Types": [
9              "TEXT",
10             "TEXT",
11             "INT"
12         ],
13         "row0":[
14             "Bob",
15             "Smith",
16             "123098822"
17         ],
18         "row2":[
19             "Bob",
20             "Smith",
21             "111222333"
22         ]
23     },
24     "suppliers":{
25         "Legend": [
26             "name",
27             "lastName",
28             "phone",
29             "company",
30             "email"
31         ],
32         "Types": [
33             "TEXT",
34             "TEXT",
35             "INT"
36         ],
37         "row0":[
38             "Bob",
39             "Smith",
```

```

40         "123098822",
41         "superFactory",
42         "contact@superFactory.com"
43     ],
44 },
45 }
```

## 7.5 Client

Commands for managing client account

### 7.5.1 /client/addAccount

#### Description

Add new account. **It work only when you have 'ACCOUNT' privilege**

Available privileges:

- READ - you can read data (G,T,S,P)
- UPADTE - you can update data (G,T,S)
- DELETE - you can delete data (G,T)
- MODIFY - you can modify structure of table (when it is global privilege you can also create table) (G,P)
- ACCOUNT - you can create and manage accounts (only in global section) (G)
- NONE - you do not have any privilege (G,T,S,P)
- ALL - you do not have all privilege (G,T,S,P)

#### METHOD: PUT

#### Body parameters

**name:** name for new account

**pass:** password for new account

**permissions:** permissions for new account

**SIN:** SIN number

**Return:** NULL

**Example body:**

```

1      {
2          "name": "bob",
3          "pass": "@WSXzaq1",
4          "permissions": {
5              "global": ["READ"],
6              "tables": {
7                  "clients": ["ALL"],
8                  "suppliers": ["READ", "UPADTE", "DELETE"],
9                  "employees": ["READ"],
10                 "bosses": ["NONE"]
11             },
12             "sheets": {
13                 "sheet1": ["READ", "UPADTE"]
14             },
15             "pages": {
16                 "addClient": ["READ"]
17             }
18         },
19         "sin": "<yourSIN>"
20     }

```

### 7.5.2 /client/changeName

#### Description

Changing name for your. After executing this command you will be logged out!

**METHOD:** POST

#### Body parameters

**name:** new name for your account

**SIN:** SIN number

**Return:** NULL

#### Example body:

```

1      {
2          "name": "bob",
3          "sin": "<yourSIN>"
4      }

```

### 7.5.3 /client/changePass

Changing password for your. After executing this command you will be logged out!

**METHOD:** POST

### Body parameters

**pass:** new password for your account

**SIN:** SIN number

**Return:** NULL

**Example body:**

```
1  {
2      "pass": "@WSXzaq1",
3      "sin": "<yourSIN>"
4  }
```

## 7.6 Sheet

### 7.6.1 /sheets

#### Description

Returns the names of all sheets.

**METHOD:** POST

#### Body parameters

**SIN:** SIN number

**Return:**

**tables:** array with sheets names

**Example body:**

```
1  {
2      "sin": "<yourSIN>"
3  }
```

**Example response:**

```
1  {
2      "sheets": [
3          "clients",
4          "employees",
5          "products"
6      ]
7  }
```

### 7.6.2 /sheets/<sheet>/rename

#### Description

Rename sheet.

**METHOD:** POST

**URL parameters**



**sheet:** sheet name

**Body parameters**

**name:** newName

**SIN:** SIN number

**Return:** NULL

**Example body:**

```
1  {
2      "name": "newName",
3      "sin": "<yourSIN>"
4  }
```

**Example response:**

### 7.6.3 /sheet/<sheet>/update

Update cell in sheet.

**METHOD:** POST

**URL parameters**

**sheet:** sheet name

**Body parameters**

**coord:** coordinate of cell

**value:** cell value

**SIN:** SIN number

**Return:** NULL

**Example body:**

```
1  {
2      "coord": "A2",
3      "value": "=SUM(`products`.`price`)",
4      "sin": "<yourSIN>"
5  }
```

### 7.6.4 /sheet/<sheet>/get

Get sheet with resolved DB functions.

**METHOD:** POST

**URL parameters**

**sheet:** sheet name

**Body parameters**

**SIN:** SIN number

**Return:**

**data:** array contain calculated values from DB

**sheet:** array contain all cells

**Example body:**

```
1  {
2    "sin": "<yourSIN>"
3  }
```

```
1  {
2    "data": {
3      "SUM(`products`.`price`)": 1353.5,
4      "SUM_IF(`products`.`price`,<100)": 630.4,
5      "COUNT(`products`)": 50.0,
6      "AVG(`products`.`price`)": 27.07,
7      "MAX(`products`.`price`)": 310.0,
8      "MIN(`products`.`price`)": 5.0,
9      "COUNT_IF(`products`.`price`,>300)": 1.0
10   },
11   "sheet": {
12     "A1": "=SUM(`products`.`price`)",
13     "B1": "=SUM_IF(`products`.`price`,<100)/AVG(`
      ↪ products`.`price`)",
14     "C2": "17",
15     "C1": "=CELI(MAX(`products`.`price`)/2) + B1",
16     "B5": "=MAX(`products`.`price`)/MIN(`products`.`
      ↪ price`)",
17     "D1": "=MIN(`products`.`price`)",
18     "A2": "=COUNT_IF(`products`.`price`,>300)"
19   }
20 }
```