

MatDeck - Work with SQLite database

Selecting data from table

- Level: Basic

In this example, we present how MatDeck can be used to work with SQLite databases. We will use the `db_connect()` function to establish a connection to the database, and the `db_query()` function to select and print the table data.

Select table data

The assignment is to establish a connection to the SQLite Database, to select and print the Name column data from table 'Software' at first, and then after that to select and print the data from the table called 'Software' where the Number column value is below 500.

DVal := "sqlite"

Connection Parameters

DatVal := "sqlite_database.db"

Query Strings

quVal1 := "SELECT Name FROM Software"

quVal2 := "SELECT * FROM Software WHERE Number < 500"

Connecting To Database

conn := db_connect(DVal, "Name", "", 0, "", "", DatVal)

List and Display Data Based On Defined Queries

dat := db_query(conn, quVal1)

dat1 := db_query(conn, quVal2)

dat =

Name
"NewSoftware"
"NewSoftware"
"NewSoftware"
"SecondSoftware"
"ThirdSoftware"
"MatDeck"

dat1 =

Name	Number
"NewSoftware"	157
"NewSoftware"	157
"NewSoftware"	157
"SecondSoftware"	24
"MatDeck"	1
"NewSoftware"	157

We could also achieve this task using MatDeck script inside the document.

```
1 // A MatDeck program to select data from tables in SQLite databases
2
3 // Connecting to the server
4 conn := db_connect("sqlite", "Name", "", 0, "", "", "sqlite_database.db")
5
6 // Selecting the query and displaying the Name column data
7 print("Displaying Name column from 'Software' table:\n")
8 print(db_query(conn, "SELECT Name FROM Software"))
9
10 // Selecting the query and displaying all the rows where the Number value
11 // is below 500
12 print("Displaying data from 'Software' table where Number value is below
13 500:\n")
14 print(db_query(conn, "SELECT * FROM Software WHERE Number < 500"))
```

```
13
14
15 // Disconnecting from the server
16 db_close(conn)
```

Output

MatDeck Console

```
Displaying Name column from 'Software' table:
```

```
["NewSoftware"]
["NewSoftware"]
["SecondSotfware"]
["ThirdSoftware"]
["MatDeck"]
["OtherSoftwares"]
```

```
Displaying data from 'Software' table where Number value is bellow 500:
```

```
["NewSoftware" 157]
["NewSoftware" 157]
["SecondSotfware" 24]
["MatDeck" 1]
```