

MatDeck - Work with SQLite database

Inserting data into table

- Level: Basic

In this example, we illustrate how MatDeck can be used to work with SQLite databases. To save time and energy, SQL databases come installed with MatDeck. We will use the `db_connect()` function to establish a connection to the database, and the `db_query()` function to insert data into the table and to list the table data.

Inserting into the table using the `db_query()` function

The task is to establish a connection to the SQLite Database, to insert data into the table and to print all the table data.

```
DVal := "sqlite"
```

Connection Parameters

```
DatVal := "sqlite_database.db"
```

Query String

```
quVal := "INSERT INTO Software (Name, Number) VALUES ('NewSoftware', 157)"
```

Connecting To Database

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

List of All Table Data

```
dat := db_query(conn, "SELECT * FROM Software")
```

`dat =`

Name	Number
"NewSoftware"	157
"NewSoftware"	157
"NewSoftware"	157
"SecondSoftware"	24
"ThirdSoftware"	624
"MatDeck"	1

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

```
1 // A MatDeck program to insert data into tables in a SQLite database using
2 the db_query() function
3
4 // Connecting to the server
5 conn := db_connect("sqlite", "Name", "", 0, "", "", "sqlite_database.db")
6
7 // Preparing the query and values to insert into the table (Insert One
8 Row)
9 queVal := "INSERT INTO Software (Name, Number) VALUES ('NewSoftware',157)"
10 // Inserting Into the Query (Insert One Row)
11 db_query(conn, queVal)
12
13 // Printing all the data from the Software table after a single row insert
14 print(db_query(conn, "SELECT * FROM Software"))
15
16 // Preparing the query and values to insert into the table (Multiple Rows
17 At Once)
18 queVal += ",('SecondSoftware',24),('ThirdSoftware',624),('MatDeck',1),
19 ('OtherSoftwares',999)"
20 // Inserting Into the Query (Multiple Rows At Once)
21 db_query(conn, queVal)
22
23 // Printing all the data from the table called software after a multiple
24 rows insert
25 print(db_query(conn, "SELECT * FROM Software"))
26
27 // Disconnecting from the server
28 db_close(conn)
```

Output

MatDeck Console

```
["NewSoftware" 157]
["NewSoftware" 157]
["SecondSoftware" 24]
["ThirdSoftware" 624]
["MatDeck" 1]
["OtherSoftwares" 999]
|
```