

# Python - Work with SQLite database

## Select data from table

- Level: Basic

In this example, we illustrate how Python can be used within MatDeck to work with SQLite databases. SQLite does not need to be installed, users can work and practice from the moment MatDeck is installed. First we will use the sqlite3 library to establish a connection to the database with a given name and after that we will select and print the table data.

## Select table data

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

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

```
Connection Parameters
```

## Code

```
1 #py
2 import sqlite3
3
4 # Connecting to the server
5 conn = sqlite3.connect(DatVal)
6
7 # Preparing a cursor object
8 cursorObj=conn.cursor()
9
10 print("Displaying Name column from 'Software' table:")
11
12 # Selecting the query and displaying the Name column data
13 cursorObj.execute("SELECT Name FROM Software")
14 records = cursorObj.fetchall()
15 for row in records:
16     print(row)
17
18 print("Displaying data from 'Software' table where Number value is bellow
19 500:")
20
21 # Selecting the query and displaying all the rows where the Number value
22 is below 500
23 cursorObj.execute("SELECT * FROM Software WHERE Number < 500")
24 records = cursorObj.fetchall()
25 for row in records:
26     print(row)
27
28 # Disconnecting from the server
29 conn.close()
30 ###
```

## Output

cmd C:\WINDOWS\system32\cmd.exe

```
C:\Users\Milos\Desktop\Python Examples\py_db4>python.exe "C:/Users/Milos
Displaying Name column from 'Software' table:
('NewSoftware',)
('NewSoftware',)
('SecondSoftware',)
('ThirdSoftware',)
('MatDeck',)
('OtherSoftwares',)
Displaying data from 'Software' table where Number value is bellow 500:
('NewSoftware', 157)
('NewSoftware', 157)
('SecondSoftware', 24)
('MatDeck', 1)

C:\Users\Milos\Desktop\Python Examples\py_db4>PAUSE
Press any key to continue . . .
```