

MatDeck - Work with MySQL database

Select data from table

- Level: Basic

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

Select table data

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

```
UserVal := "test_user"
```

```
PassVal := "Test123"
```

```
HostVal := "localhost"
```

```
DatVal := "matdeck"
```

```
DVal := "mysql"
```

```
PortVal := 3306
```

Connection Parameters

Query Strings

```
quVal1 := "SELECT Name FROM Software"
```

```
quVal2 := "SELECT · FROM Software WHERE Number < 500"
```

Connecting To Database

```
conn := db_connect(DVal, "Name", HostVal, PortVal, UserVal, PassVal, DatVal)
```

List and Display Data Based On Defined Queries

```
dat := db_query(conn, quVal1)
```

```
dat1 := db_query(conn, quVal2)
```

`dat =`

Name
"NewSoftware"
"NewSoftware"
"ThirdSoftware"
"MatDeck"
"OtherSoftwares"
"NewSoftware"

`dat1 =`

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

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

```
1 // MatDeck program to select data from table 'Software' in MYSQL database
2
3 // Connecting to the server
4 conn := db_connect("mysql", "Name", "localhost", 3306, "test_user",
5 "Test123", "matdeck")
6
7 // Select query and display Name column data
8 print("Displaying Name column from 'Software' table:\n")
9 print(db_query(conn, "SELECT Name FROM Software"))
10
11 // Select query and display all rows where Number value is bellow 500
12 print("Displaying data from 'Software' table where Number value is bellow
13 500:\n")
14 print(db_query(conn, "SELECT * FROM Software WHERE Number < 500"))
15
16 // Disconnecting from the server
17 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]
```