

MatDeck - Work with MySQL database

Inner join

- 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 display software *Name* from 'software' table and company *Name* from 'company' table where *Number* value in both tables are the same.

Inner join query

The task is to establish the connection to MySQL Database, to display Name value from 'software' table and company *Name* from 'company' table on rows which Number value is the same on both tables.

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

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

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

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

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

```
PortVal := 3306
```

Connection Parameters

Query Strings

```
quVal := "SELECT software.Name as 'Software', company.Name as 'Company' FROM"
```

```
quVal += " software JOIN company ON software.Number = company.Number"
```

Connecting To Database

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

Display 'software and 'company' tables Data

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

```
dat1 := db_query(conn, "SELECT * FROM company")
```

dat =

Name	Number
"NewSoftware"	157
"NewSoftware"	157
"ThirdSoftware"	628
"MatDeck"	1
"OtherSoftwares"	999
"NewSoftware"	157

dat1 =

id	Name	Number
1	"LabDeck"	1
2	"Company 1"	157
3	"Company 2"	456
4	"Company 3"	628
5	"Company 4"	999
6	"Company 5"	1258

Display inner join query results

```
dat2 := db_query(conn, quVal)
```

dat2 =

Software	Company
"NewSoftware"	"Company 1"
"NewSoftware"	"Company 1"
"ThirdSoftware"	"Company 3"
"MatDeck"	"LabDeck"
"OtherSoftwares"	"Company 4"
"NewSoftware"	"Company 1"

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

```
1 // MatDeck program for select query using join (inner join) in MySQL
2 database
3 // Connecting to the server
4 conn := db_connect("mysql", "Name", "localhost", 3306, "test_user",
5 "Test123", "matdeck")
6 // Print all from table 'software'
7 print(db_query(conn, "SELECT * FROM software"))
8 print("\n")
9
10 // Print all from table 'company'
11 print(db_query(conn, "SELECT * FROM company"))
12 print("\n")
13
14 // Select query with inner join
15 print(db_query(conn, "SELECT software.Name as 'Software', company.Name as
16 'Company' FROM software JOIN company ON software.Number =
17 company.Number"))
18 // Disconnecting from the server
19 db_close(conn)
```

Output

MatDeck Console

```
["NewSoftware" 157]
["NewSoftware" 157]
["ThirdSoftware" 628]
["MatDeck" 1]
["OtherSoftwares" 999]

[1 "LabDeck" 1]
[2 "Company 1" 157]
[3 "Company 2" 456]
[4 "Company 3" 628]
[5 "Company 4" 999]
[6 "Company 5" 1258]

["MatDeck" "LabDeck"]
["NewSoftware" "Company 1"]
["NewSoftware" "Company 1"]
["ThirdSoftware" "Company 3"]
["OtherSoftwares" "Company 4"]
```