Python - Display MySQL Table Rows & Columns

This module guides you how to issue a SQL SELECT Query from Python application to retrieve MySQL table data.

We are using MySQL Connector Python to select data from MySQL table.

To perform a SQL SELECT query from Python, you need to follow these simple steps:

1) Use previously installed MySQL Connector Python.

```
import mysql.connector
```

2) Establish MySQL database Connection from Python.

```
mydb = mysql.connector.connect(

  host     = 'localhost',
  database = 'student'
  user     = 'root',
  password = '',
)
```

3) Define and execute the SELECT query using **cursor.execute()** method.

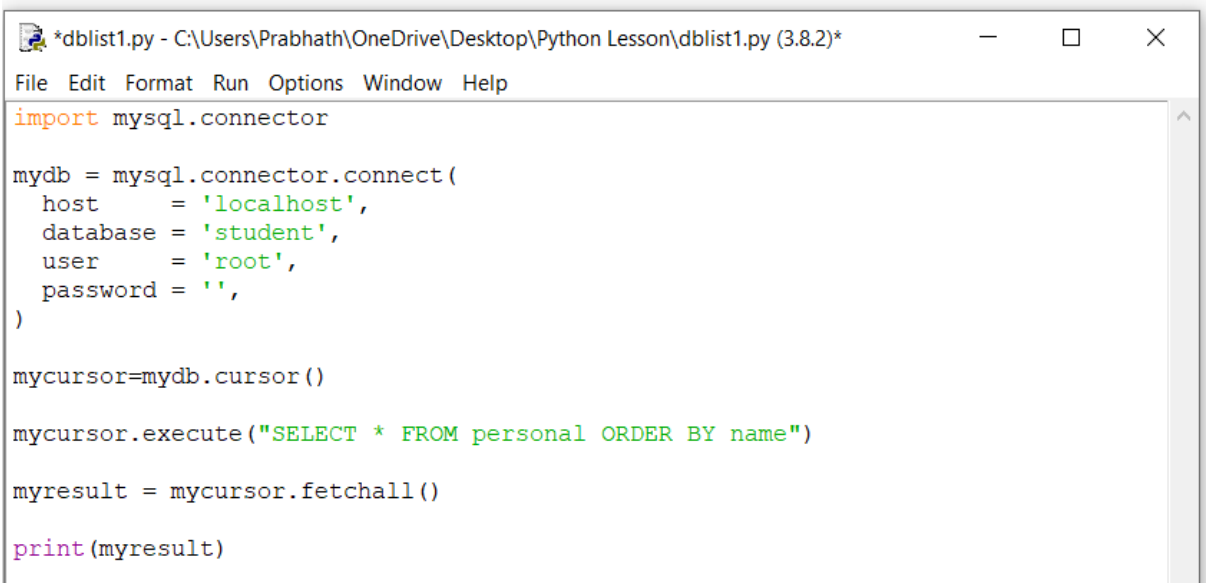
```
mycursor = mydb.cursor()
mycursor.execute("SELECT * FROM personal")
```

4) Get result from cursor object using a **cursor.fetchall().**

```
myresult = mycursor.fetchall()
```

5) Print result using **print()**

Complete python code is given as below. Save the program as **dblist1**



Output of the above program is

```
===== RESTART: C:/Users/Prabhath/OneDrive/Desktop/Python Lesson/dblist1.py =====
[('001', 'Tharindu'), ('002', 'Supun'), ('003', 'Bhagya'), ('004', 'Sachini'), ('005', 'Hiruni'),
('006', 'Janani'), ('007', 'Pasindu'), ('008', 'Lahiru'), ('009', 'Isuru'), ('010', 'Fathima')]
>>>
```

Ln: 165 Col: 4

To get the output line by line, change last `print(myresult)` with a for loop:

```
For x in myresult:
    print(x)
```

Save it as **dblist2** and output as

```
============== RESTART: C:/Users/Prabhath/OneDrive/Desktop/Python Lesson/dblist1.py =============
('001', 'Tharindu')
('002', 'Supun')
('003', 'Bhagya')
('004', 'Sachini')
('005', 'Hiruni')
('006', 'Janani')
('007', 'Pasindu')
('008', 'Lahiru')
('009', 'Isuru')
('010', 'Fathima')
>>>
```

Further modify the `print(x)` statement to print '`Index Number`.' and '`Name`'.

```
for x in myresult:
    print('Index Number: ', x[0], 'Name: ', x[1])
```

and output

```
===== RESTART: C:\Users\Prabhath\OneDrive\Desktop\Python Lesson\dblist1.py =====
Index Number:  001 Name:  Tharindu
Index Number:  002 Name:  Supun
Index Number:  003 Name:  Bhagya
Index Number:  004 Name:  Sachini
Index Number:  005 Name:  Hiruni
Index Number:  006 Name:  Janani
Index Number:  007 Name:  Pasindu
Index Number:  008 Name:  Lahiru
Index Number:  009 Name:  Isuru
Index Number:  010 Name:  Fathima
>>>
```

Slightly better version

```
print('Index', 'Name')
for x in myresult:
    print(x[0],' ', x[1])
```

with output

```
===== RESTART: C:\Users\Prabhath\OneDrive\Desktop\Python Lesson\dblist1.py =====
Index Name
001   Tharindu
002   Supun
003   Bhagya
004   Sachini
005   Hiruni
006   Janani
007   Pasindu
008   Lahiru
009   Isuru
010   Fathima
>>>
```

Output with alphabetical order of names

Use ORDER BY statement to get the output in particular order.

```
mycursor.execute("SELECT * FROM personal ORDER BY name")

myresult = mycursor.fetchall()

print('Index', 'Name')
for x in myresult:
    print(x[0],' ', x[1])
```

```
===== RESTART: C:\Users\Prabhath\OneDrive\Desktop\Python Lesson\dblist1.py =====
Index Name
003   Bhagya
010   Fathima
005   Hiruni
009   Isuru
006   Janani
008   Lahiru
007   Pasindu
004   Sachini
002   Supun
001   Tharindu
>>>
```