Connect to MySQL using PyMySQL in Python

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In this article, we will discuss how to connect to the **MySQL** database **remotely** or **locally** using Python. In below process, we will use **PyMySQL** module of Python to connect our database.

What is PyMySQL?

This package contains a pure-Python MySQL client library, based on PEP 249.

Requirements :

MySQL Server – one of the following :

- MySQL >= 5.5
- MariaDB >= 5.5

Installation :

This module does not come built-in with Python. You have to install it externally. To install this type the below command in the terminal.

```
pip install PyMySQL
```

Connecting to MySQL

The proper way to get an instance of this class is to call **connect()** method. This method establishes a connection to the MySQL database and accepts several arguments:

Parameters :

- *host – Host where the database server is located*
- *user – Username to log in as*
- *password – Password to use*

Example 1: Let's connect to the MySQL server.

Python3

```python
import pymysql

def mysqlconnect():
    # To connect MySQL database
    conn = pymysql.connect(
        host='localhost',
        user='root',
        password = "pass",
        db='College',
        )

    cur = conn.cursor()
    cur.execute("select @@version")
    output = cur.fetchall()
    print(output)

    # To close the connection
    conn.close()

# Driver Code
if __name__ == "__main__" :
    mysqlconnect()
```

Output :

```
(('5.7.30-0ubuntu0.18.04.1',),)
```

Example 2: Let's try to access a table from the database

Table used:

```
+-----------------+-------------------------------------+-----------+-----------+-------+-----------+
| NAME            | BRANCH                              | ROLL      | SECTION   | AGE   | Roll_no   |
+-----------------+-------------------------------------+-----------+-----------+-------+-----------+
| Ritam Barik     | Information Technology              | 1706254   | IT-3      | 21    |        1  |
| Rishi Kumar     | Information Technology              | 1706253   | IT-3      | 23    |        2  |
| Rituraj Saha    | Information Technology              | 1706256   | IT-3      | 20    |        3  |
| S.K. Anirban    | Computer Science and Engineering    | 1706271   | CSE-5     | 21    |        5  |
| Soumya Das      | Computer Science and Engineering    | 1706273   | CSE-2     | 21    |       55  |
+-----------------+-------------------------------------+-----------+-----------+-------+-----------+
5 rows in set (0.00 sec)
```

Python3

```python
import pymysql

def mysqlconnect():
    # To connect MySQL database
    conn = pymysql.connect(
        host='localhost',
        user='root',
        password = "pass",
        db='College',
        )

    cur = conn.cursor()

    # Select query
    cur.execute("select * from STUDENT")
    output = cur.fetchall()

    for i in output:
        print(i)

    # To close the connection
    conn.close()

# Driver Code
if __name__ == "__main__" :
    mysqlconnect()
```

Output:

```
('Rishi Kumar', 'Information Technology', 1706253, 'IT-3', 23, 2)
('Rituraj Saha', 'Information Technology', 1706256, 'IT-3', 20, 3)
('S.K. Anirban', 'Computer Science and Engineering', 1706271, 'CSE-5', 21, 5)
('Soumya Das', 'Computer Science and Engineering', 1706273, 'CSE-2', 21, 55)
```

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