Python MySQL

Python can be used in database applications.

One of the most popular databases is MySQL.

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Install MySQL Driver:

Python needs a MySQL driver to access the MySQL database.

we will use the driver "MySQL Connector".

We recommend that you use PIP to install "MySQL Connector".

PIP is most likely already installed in your Python environment.

Test MySQL Connector:

To test if the installation was successful, or if you already have "MySQL Connector" installed, create a Python page with the following content:

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Create Connection

Start by creating a connection to the database.

Use the username and password from your MySQL database:

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import mysql.connector  
  
mydb = mysql.connector.connect(  
 host="localhost",  
 user="root",  
 password="vijay@123"  
)  
  
print(mydb)

Creating a Database:

To create a database in MySQL, use the "CREATE DATABASE" statement:

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import mysql.connector  
  
mydb = mysql.connector.connect(  
 host="localhost",  
 user="root",  
 password="vijay@123"  
)  
  
mycursor = mydb.cursor()  
  
mycursor.execute("CREATE DATABASE mydatabase")

Creating a Table

To create a table in MySQL, use the "CREATE TABLE" statement.

Make sure you define the name of the database when you create the connection  
  
import mysql.connector  
  
mydb = mysql.connector.connect(  
 host="localhost",  
 user="root",  
 password="vijay@123",  
 database="mydatabase"  
)  
  
mycursor = mydb.cursor()  
  
mycursor.execute("CREATE TABLE customers (name VARCHAR(255), address VARCHAR(255))")  
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#If this page is executed with no error, you have successfully created a database.

Check if Table Exists:

You can check if a table exist by listing all tables in your database with the "SHOW TABLES" statement:

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import mysql.connector  
mydb = mysql.connector.connect(  
 host="localhost",  
 user="root",  
 password="vijay@123",  
 database="mydatabase"  
)

mycursor = mydb.cursor()

mycursor.execute("SHOW TABLES")

for x in mycursor:

print(x)

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Insert Into Table

To fill a table in MySQL, use the "INSERT INTO" statement.

import mysql.connector  
  
mydb = mysql.connector.connect(  
 host="localhost",  
 user="root",  
 password="vijay@123",  
 database="mydatabase"  
)  
  
mycursor = mydb.cursor()  
  
sql = "INSERT INTO customers (name, address) VALUES (%s, %s)"  
val = ("John", "Highway 21")  
  
mycursor.execute(sql, val)  
  
mydb.commit()  
  
print(mycursor.rowcount, "record inserted.")  
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Insert Multiple Rows

To insert multiple rows into a table, use the executemany() method.

The second parameter of the executemany() method is a list of tuples, containing the data you want to insert:

=============================================================  
import mysql.connector  
  
mydb = mysql.connector.connect(  
 host="localhost",  
 user="root",  
 password="vijay@123",  
 database="mydatabase"  
)  
mycursor = mydb.cursor()  
  
sql = "INSERT INTO customers (name, address) VALUES (%s, %s)"  
val = [  
 ('Peter', 'Lowstreet 4'),  
 ('Amy', 'Apple st 652'),  
 ('Hannah', 'Mountain 21'),  
 ('Michael', 'Valley 345'),  
 ('Sandy', 'Ocean blvd 2'),  
 ('Betty', 'Green Grass 1'),  
 ('Richard', 'Sky st 331'),  
 ('Susan', 'One way 98'),  
 ('Vicky', 'Yellow Garden 2'),  
 ('Ben', 'Park Lane 38'),  
 ('William', 'Central st 954'),  
 ('Chuck', 'Main Road 989'),  
 ('Viola', 'Sideway 1633')  
]  
  
mycursor.executemany(sql, val)  
mydb.commit()  
  
print(mycursor.rowcount, "record was inserted.")

Select From a Table

To select from a table in MySQL, use the "SELECT" statement:  
import mysql.connector  
mydb = mysql.connector.connect(  
 host="localhost",  
 user="root",  
 password="vijay@123",  
 database="mydatabase"  
)  
  
mycursor = mydb.cursor()  
  
mycursor.execute("SELECT \* FROM customers")  
  
myresult = mycursor.fetchall()  
  
for x in myresult:  
 print(x)

Delete Record

You can delete records from an existing table by using the "DELETE FROM" statement:

import mysql.connector  
  
mydb = mysql.connector.connect(  
 host="localhost",  
 user="root",  
 password="vijay@123",  
 database="mydatabase"  
)  
  
mycursor = mydb.cursor()  
  
sql = "DELETE FROM customers WHERE address = 'Mountain 21'"  
  
mycursor.execute(sql)  
  
mydb.commit()  
  
print(mycursor.rowcount, "record(s) deleted")

Update Table

You can update existing records in a table by using the "UPDATE" statement:

import mysql.connector  
  
mydb = mysql.connector.connect(  
 host="localhost",  
 user="root",  
 password="vijay@123",  
 database="mydatabase"  
)  
  
  
mycursor = mydb.cursor()  
  
sql = "UPDATE customers SET address = 'Canyon 123' WHERE address = 'Valley 345'"  
mycursor.execute(sql)  
mydb.commit()  
print(mycursor.rowcount, "record(s) affected")