

# Basic Programming

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## Lesson 09

# Python with MySQL

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# Install MySQL Community Server

## ④ MySQL Community Downloads

← MySQL Community Server

**General Availability (GA) Releases** Archives ⓘ

### MySQL Community Server 8.0.27

Select Operating System:

macOS ▼

Select OS Version:

All ▼

Looking for previous GA versions?

- Download: <https://dev.mysql.com/downloads/mysql/>

# Install MySQL Workbench

## MySQL Community Downloads

MySQL Workbench

**General Availability (GA) Releases** Archives ⓘ

### MySQL Workbench 8.0.27

Select Operating System:

macOS ▼

<b>macOS (x86, 64-bit), DMG Archive</b> (mysql-workbench-community-8.0.27-macos-x86_64.dmg)	8.0.27	112.5M	<b>Download</b>
		MD5: 0a208c093b0224a0fc9b45ca1ca00fdb	<a href="#">Signature</a>

- Download: <https://dev.mysql.com/downloads/workbench/>

# Install mysql-connector-python library

Install via pip:

- `pip install mysql-connector-python`

# Connect to MySQL

```
import mysql.connector
```

```
myconn = mysql.connector.connect(host="localhost",  
                                user="root",  
                                passwd="mysql123")  
print('Connected to MySQL Database')
```

```
cur = myconn.cursor()  
cur.execute("show databases")  
for row in cur:  
    print(row)
```

```
myconn.close()
```

# Create new database

```
import mysql.connector

myconn = mysql.connector.connect(host="118.70.52.237",
                                user="root",
                                passwd="mysql123")

print('Connected to MySQL Database')

cur = myconn.cursor()
cur.execute("create database testdb")
cur.execute("show databases")
for row in cur:
    print(row)

myconn.close()
```

# Create new table

```
cur.execute("""  
    CREATE TABLE Employee(  
        Code VARCHAR(10) PRIMARY KEY,  
        Name VARCHAR(50) NOT NULL,  
        Salary FLOAT NOT NULL,  
        Department VARCHAR(100) NOT NULL  
    )  
""")
```



# Insert a records

```
sql = """  
    INSERT INTO Employee(Code, Name, Salary, Department)  
    VALUES (%s, %s, %s, %s)  
    """  
vals = ("PY000007", 'Đỗ Duy Hiệu', 500, "Python 01")  
cur.execute(sql, vals)  
myconn.commit()
```

# Insert multiple records

```
sql = ("""  
    INSERT INTO Employee(Code, Name, Salary, Department)  
    VALUES (%s, %s, %s, %s)  
""")  
vals = [  
    ("PY000009", 'Dương', 700, "Python 01"),  
    ("PY000014", 'Trần Hồng Vũ', 1000, "Python 01")  
]  
cur.executemany(sql, vals)  
myconn.commit()
```

# Select fetchall

```
cur.execute("SELECT * FROM Employee")  
result = cur.fetchall()  
for row in result:  
    print(row)
```

# Select where

```
cur.execute("SELECT * FROM Employee WHERE Name LIKE '%Hieu%')  
result = cur.fetchall()  
for row in result:  
    print(row)
```

# Select fetchone

```
cur.execute("SELECT * FROM Employee")  
result = cur.fetchone()  
print(result)
```

# Update

```
cur.execute("UPDATE Employee SET Salary = 600 WHERE Code = 'PY000007'")  
myconn.commit()
```

# Delete

```
cur.execute("DELETE FROM Employee WHERE Code = 'PY000007'")  
myconn.commit()
```