

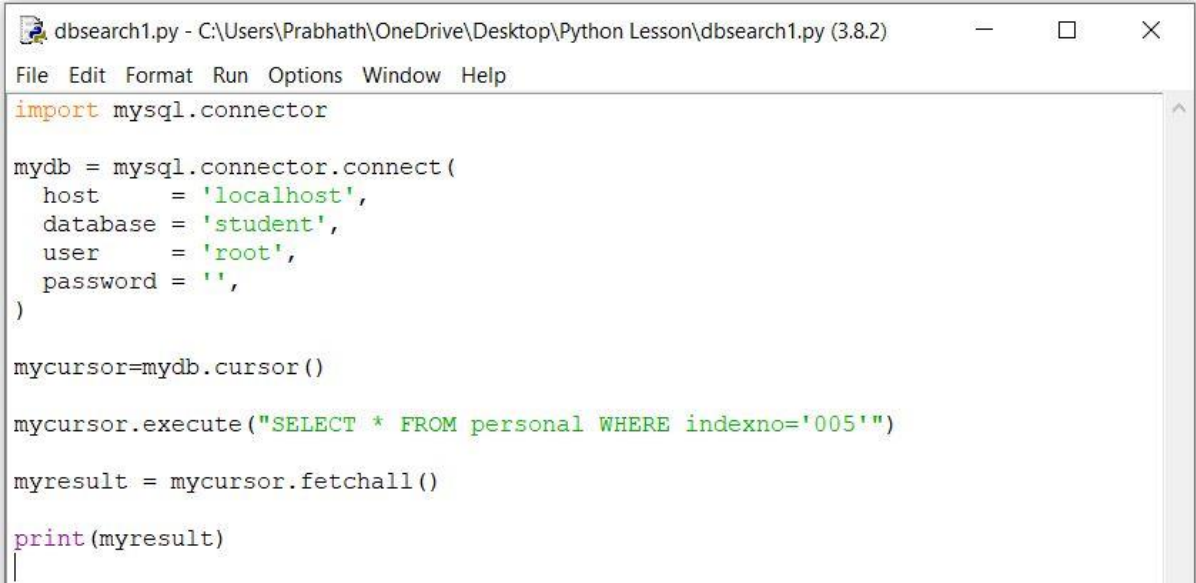
Python – Search MySQL Table data

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

To find the record with **indexno** = '005'

```
SELECT * FROM personal WHERE indexno='005'
```

Complete python code is given as below



```
dbsearch1.py - C:\Users\Prabhath\OneDrive\Desktop\Python Lesson\dbsearch1.py (3.8.2)
File Edit Format Run Options Window Help
import mysql.connector

mydb = mysql.connector.connect(
    host = 'localhost',
    database = 'student',
    user = 'root',
    password = '',
)

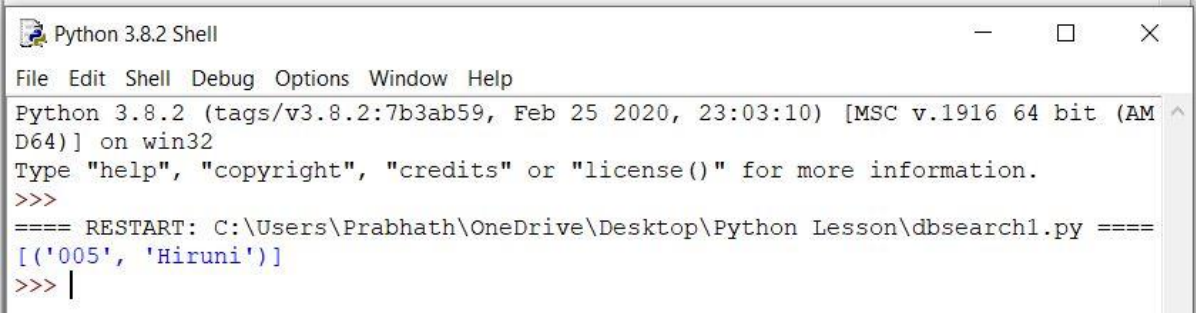
mycursor=mydb.cursor()

mycursor.execute("SELECT * FROM personal WHERE indexno='005'")

myresult = mycursor.fetchall()

print(myresult)
```

Gives following result.



```
Python 3.8.2 Shell
File Edit Shell Debug Options Window Help
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 23:03:10) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
==== RESTART: C:\Users\Prabhath\OneDrive\Desktop\Python Lesson\dbsearch1.py ====
[('005', 'Hiruni')]
>>> |
```

By replacing the `mycursor.execute()` command on above program

```
mycursor.execute("SELECT * FROM personal WHERE indexno='005'")
```

with following

```
sql = "SELECT * FROM personal WHERE indexno = '005'"
mycursor.execute(sql)
```

do the same action, but looks your code better.

To search the table for a given student name, you may change the SELECT statement as

```
sql = "SELECT * FROM personal WHERE name = 'Pasindu'"
```

and the output

```
==== RESTART: C:\Users\Prabhath\OneDrive\Desktop\Python Lesson\dbsearch3.py ====  
[('007', 'Pasindu')]
```

Further, to get all names starting with letter 'S', we can use LIKE as


```
sql = "SELECT * FROM personal WHERE name LIKE 'S%'"
```

and output as

```
==== RESTART: C:\Users\Prabhath\OneDrive\Desktop\Python Lesson\dbsearch4.py ====  
[('002', 'Supun'), ('004', 'Sachini')]
```

Up to now, you've written Python codes to search your table with Index Number and Student Name. Each time you want to search a different number or name, you have to edit the code and run it again.

Alternatively, you can use a variable, for example, for student name and pass the value input to the SELECT query.



```
dbsearch5.py - C:\Users\Prabhath\OneDrive\Desktop\Python Lesson\dbsearch5.py (3.8.2)
File Edit Format Run Options Window Help
import mysql.connector

mydb = mysql.connector.connect(
    host = 'localhost',
    database = 'student',
    user = 'root',
    password = '',
)

nm = input("Type name: ")

mycursor=mydb.cursor()

sql = "SELECT * FROM personal WHERE name = %s"
adr = (nm,)

mycursor.execute(sql,adr)

myresult = mycursor.fetchall()

print(myresult)
```

Once you run the program, prompt for you to input name and give the output accordingly. You may use simple letters or capital letters or mixed.

```
==== RESTART: C:\Users\Prabhath\OneDrive\Desktop\Python Lesson\dbsearch5.py ====  
Type name: lAhiRu  
[('008', 'Lahiru')]  
>>> |
```