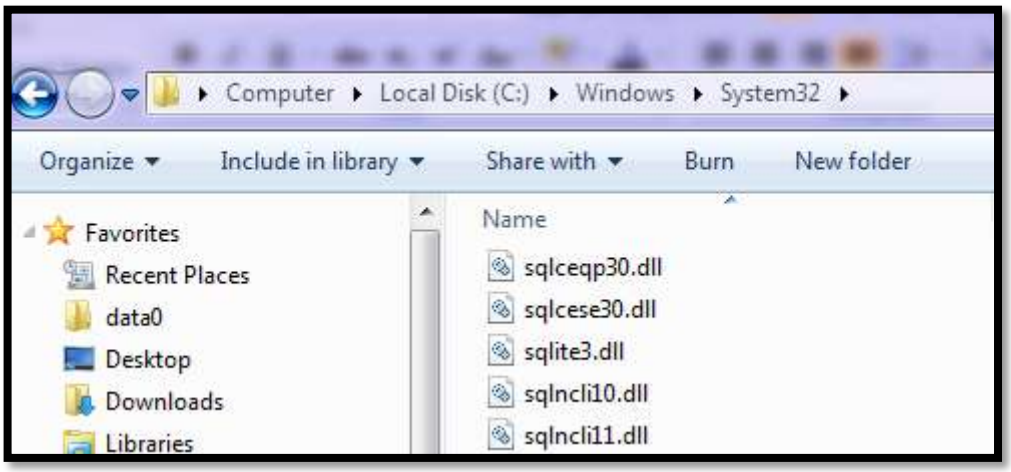
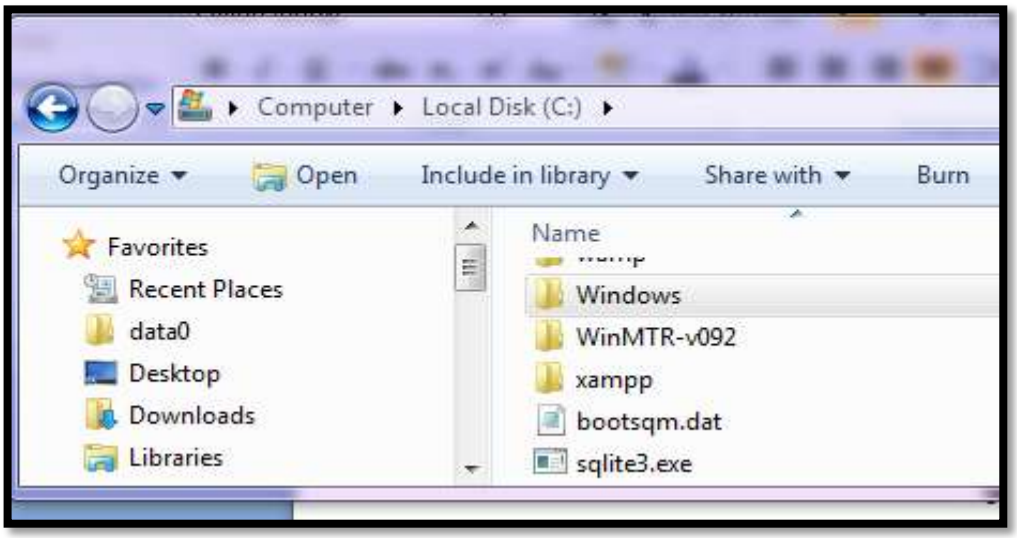
Working with Sqlite using Python

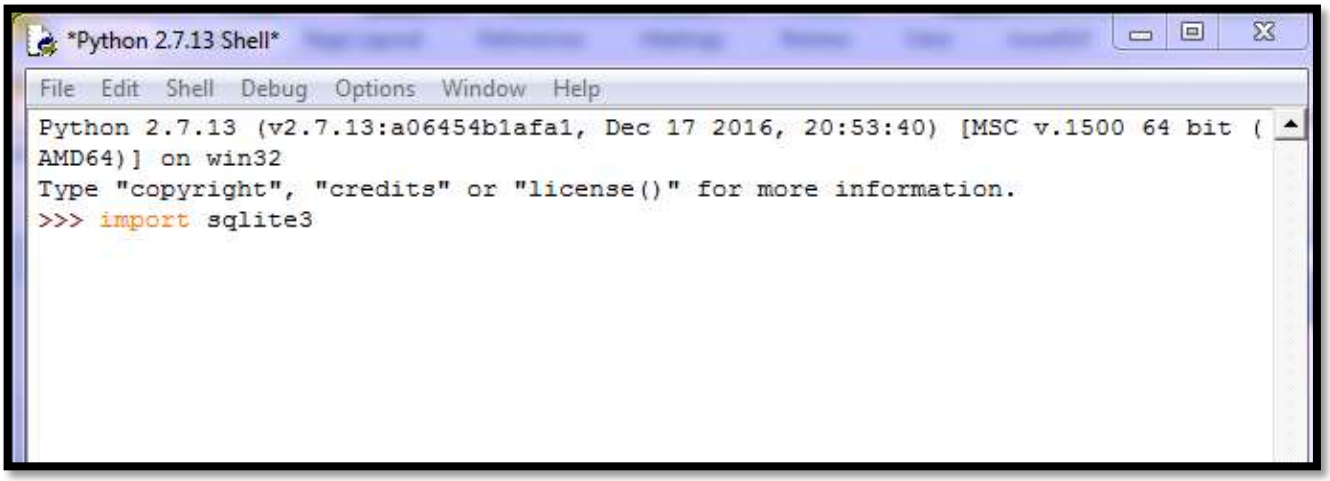
1. Download Sqlite3 for windows (**sqlite-shell-win64-x64-3080500**)
2. Copy sqlite3.dll into ***C:/windows/System32***



3. Copy sqlite3.exe into ***C:/***



4. Run ***sqlite3.exe*** (Installing sqlite3 on windows OS)
5. Open Python2.7 shell
6. Import sqlite3 into python



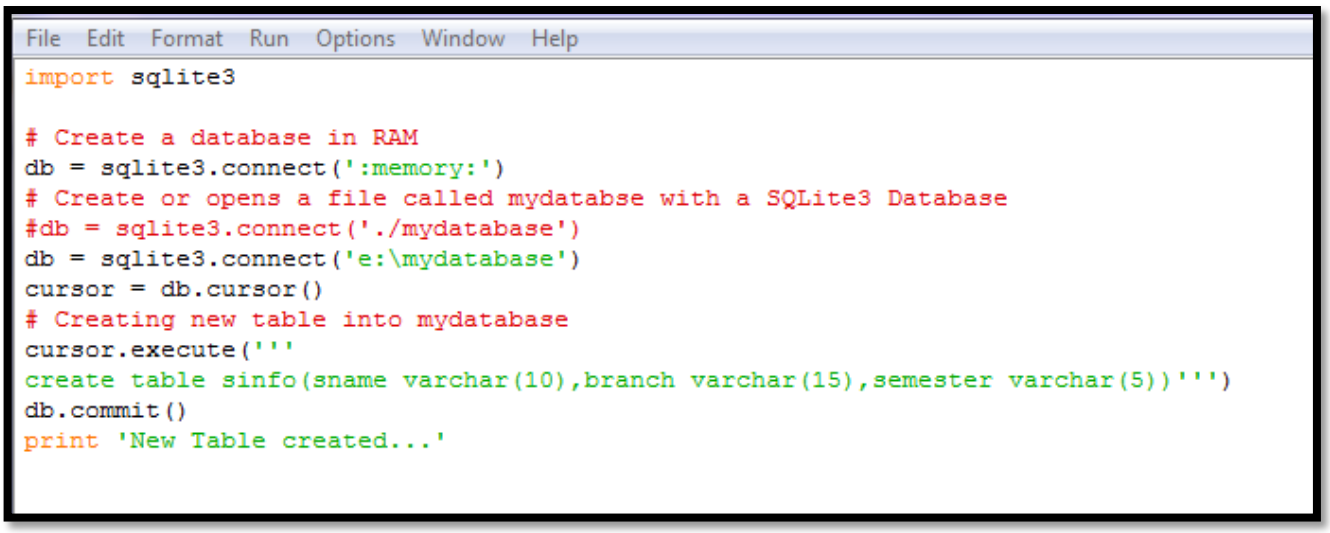
Ready to work with Sqlite3 Database using Python.

How to Create Database in RAM and Database file?

```
import sqlite3
# Create a database in RAM
db = sqlite3.connect(':memory:')
# Create or opens a file called mydatabse with a SQLite3 Database
db = sqlite3.connect('e:\mydatabase')
```

Database operations on Sqlite3 using Python

1. **Creating Database table :sinfo**



2. **Insert a record into sinfo.**

```
File  Edit  Format  Run  Options  Window  Help
import sqlite3

# Create a database in RAM
db = sqlite3.connect(':memory:')
# Create or opens a file called mydb with a SQLite3 Database
#db = sqlite3.connect('./mydatabase')
db = sqlite3.connect('e:\mydatabase')
cursor = db.cursor()
name1 ='pvp'
branch1 ='bda'
sem1= 'four'
# Insert first record
cursor.execute('''INSERT INTO sinfo
                  VALUES(?,?,?)''', (name1,branch1,sem1))
print('Student inserted')
db.commit()
```

3. **Insert record dynamically**

```
File  Edit  Format  Run  Options  Window  Help
import sqlite3

# Create a database in RAM
db = sqlite3.connect(':memory:')
# Create or opens a file called mydb with a SQLite3 Database
db = sqlite3.connect('./mydatabase')
cursor = db.cursor()

sname1=raw_input('enter student name')
sbranch1=(raw_input('enter your branch'))
ssem1=raw_input('enter your semester')
#use int(raw_input('enter your number')) for integer values

# Insert record dynamically
cursor.execute('''INSERT INTO sinfo
                  VALUES(?,?,?)''', (sname1,sbranch1,ssem1))
print('Student inserted')
db.commit()
```

Output of above file

```
File  Edit  Shell  Debug  Options  Window  Help
Python 2.7.13 (v2.7.13:a06454b1afa1, Dec 17 2016, 20:53:40) [MSC v.1500 64 bit (
AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
======= RESTART: E:\ICT\A-Jan-Dec-2017\Python\Sqlite\insertruntime.py =======
enter student name:abcd
enter your branch:MA
enter your semester:Second
Student inserted
>>>
```

4. **Display records of table**

```
File  Edit  Format  Run  Options  Window  Help
import sqlite3

# Create a database in RAM
db = sqlite3.connect(':memory:')
# Create or opens a file called mydb with a SQLite3 Database
#db = sqlite3.connect('./mydatabase')
db = sqlite3.connect('e:\mydatabase')
cursor = db.cursor()
#cursor.execute('''select * from sinfo''')
cursor.execute('select * from sinfo')
'''count=cursor.rowcount
print count
#cursor.fetchone()
'''
#to display all records
d=cursor.fetchall()

for i in d:
     print i
```

Output of above file

```
File  Edit  Shell  Debug  Options  Window  Help
Python 2.7.13 (v2.7.13:a06454b1afa1, Dec 17 2016, 20:53:40) [MSC v.1500 64 bit (
AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
========= RESTART: E:\ICT\A-Jan-Dec-2017\Python\Sqlite\showrecord.py =========
(u'pvp', u'bda', u'four')
>>>
```

5. **Update records**

```
File  Edit  Format  Run  Options  Window  Help
import sqlite3

# Create a database in RAM
db = sqlite3.connect(':memory:')
# Create or opens a file called mydb with a SQLite3 Database
db = sqlite3.connect('e:\mydatabase')
#db = sqlite3.connect('./mydatabase')
cursor = db.cursor()

#branch1=raw_input('enter name')
# update record
cursor.execute(''' update sinfo set branch=? where semester=? ''',('cba','four'))
db.commit()
print'Student updated'
```

Output of above file

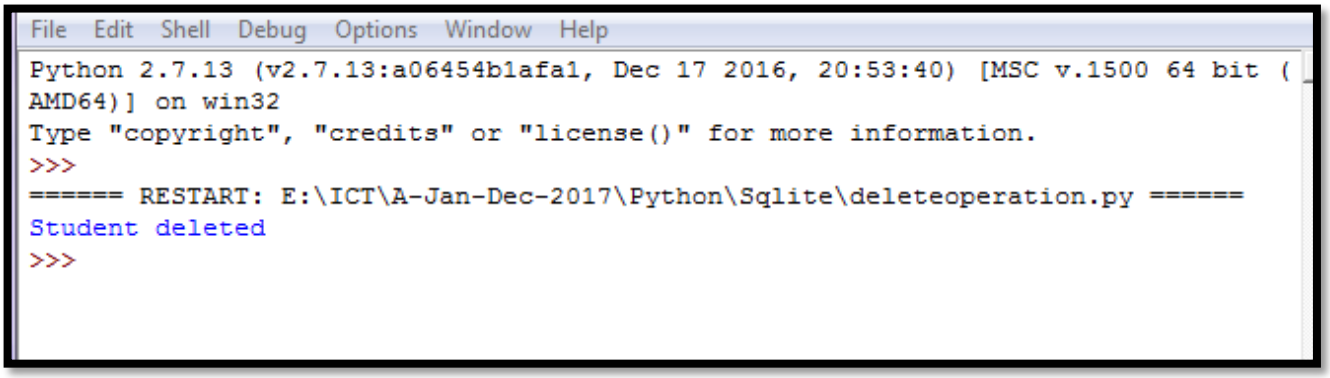
```
File  Edit  Shell  Debug  Options  Window  Help
Python 2.7.13 (v2.7.13:a06454b1afa1, Dec 17 2016, 20:53:40) [MSC v.1500 64 bit (
AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
========== RESTART: E:\ICT\A-Jan-Dec-2017\Python\Sqlite\updateop.py ==========
Student updated
>>>
```

6. **Delete record**

```
File  Edit  Format  Run  Options  Window  Help
import sqlite3

# Create a database in RAM
db = sqlite3.connect(':memory:')
# Create or opens a file called mydb with a SQLite3 Database
db = sqlite3.connect('e:\mydatabase')
#db = sqlite3.connect('./mydatabase')
cursor = db.cursor()
# Delete record
#cursor.execute('''delete from sinfo''')
cursor.execute('''delete from sinfo where semester=?''',('four',))
print('Student deleted')
db.commit()
```

Output of above file


File Edit Shell Debug Options Window Help
Python 2.7.13 (v2.7.13:a06454b1afa1, Dec 17 2016, 20:53:40) [MSC v.1500 64 bit (
AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
====== RESTART: E:\ICT\A-Jan-Dec-2017\Python\Sqlite\deleteoperation.py ======
Student deleted
>>>