

SQLITE3 IN PYTHON

SQLite is a C library that provides a lightweight disk-based database that doesn't require a separate server process and allows accessing the database

The `sqlite3` module was written by Gerhard Häring.

CREATE A PYTHON FILE

STEP-1:

need to create a new database and open a database connection to allow `sqlite3` to work with it.

Call `sqlite3.connect()` to create a connection to the database

```
import sqlite3
con = sqlite3.connect("school.db")
```

STEP-2:

In order to execute SQL statements and fetch results from SQL queries, we will need to use a database cursor.

Call `con.cursor()` to create the `Cursor`:

```
cur = con.cursor()
```

STEP-3:

we can create a database table
specifying the data types is optional.

Execute the `CREATE TABLE` statement by calling `cur.execute(...)`:

```
cur.execute("CREATE TABLE student(rollno, name, course)")
```

STEP-4:

add two rows of data by executing an `INSERT` statement, once again by calling `cur.execute(...)`

```
cur.execute("""
INSERT INTO student VALUES
    (1, 'name1', 'course1'),
    (2, 'name2', 'course2')
""")
```

STEP-5:

needs to be committed before changes are saved in the database
Call `con.commit()` on the connection object to commit the transaction:

```
con.commit()
```

STEP-6:

Fetching

We can verify that the data was inserted correctly by executing a `SELECT` query.
call `res.fetchall()` to return all resulting rows:

```
res = cur.execute("SELECT name FROM student")  
res.fetchall()
```

Output:

```
[(name1),(name2)]
```

The result is a `list` of two tuples, one per row,

STEP-7:

Finally, `con.close()` to close the existing connection,

```
con.close()
```