



PYTHON APPLICATION PROGRAMMING

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SQLite3

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SQLite3

- SQLite is a software library that implements a self-contained, serverless, zero configuration, transactional SQL database engine.
- SQLite is the most widely deployed SQL database engine . The source code for SQLite is in the public domain.

SQLite3

SQLite is not directly comparable to client/server SQL database engines such as MySQL, Oracle, PostgreSQL, or SQL Server since SQLite is trying to solve a different problem.

Client Server DB Engine VS SQLite3

- Client/server SQL database engines strive to implement a shared repository of enterprise data. They emphasize scalability, concurrency, centralization, and control.
- SQLite strives to provide local data storage for individual applications and devices.
- SQLite emphasizes economy, efficiency, reliability, independence, and simplicity.

When not to Use SQLITE ?

Client/Server Applications

If there are many client programs sending SQL to the same database over a network, then use a client/server database engine instead of SQLite.

High-volume Websites

SQLite will normally work fine as the database backend to a website. But if the website is write-intensive or is so busy that it requires multiple servers, then consider using an enterprise-class client/server database engine instead of SQLite.

When not to Use SQLITE ?

Very large datasets

An SQLite database is limited in size to 140 terabytes (2⁴⁷ bytes, 128 tibibytes).

High Concurrency

SQLite supports an unlimited number of simultaneous readers, but it will only allow one writer at any instant in time.

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Connection objects

Connection objects create a connection with the database and these are further used for different transactions. These connection objects are also used as representatives of the database session.

You can use a connection object for calling methods like `commit()`, `rollback()` and `close()`

Cursor objects

Cursor is one of the powerful features of SQL. These are objects that are responsible for submitting various SQL statements to a database server.

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Database Programming



Sample Program:

```
import sqlite3

cnx=sqlite3.connect("example.db")

cur=cnx.cursor()

''' #execute first and then comment

cur.execute('create table tab1 (name char(20), age integer)')

cur.execute('create table tab2 (name char(20), age integer)')

'''
```

Sample Program(continued):

```
cur.execute('insert into tab1 values ("chitra",34)')
```

```
cur.execute('insert into tab1 values ("rama",34)')
```

```
cxn.execute('insert into tab2 values ("Ganesh",21)')
```

```
cxn.execute('insert into tab2 values ("Ggg",21)')
```

```
#usage of place holder.
```

```
info=('aa',30)
```

```
cur.execute('insert into tab1 (name,age) values (?,?)',info)
```

```
x=cur.execute('select * from tab1')
```

```
for i in x:
```

```
    print(i)
```

```
print("done")
```



THANK YOU

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