

## 1. 安装 sqlite3

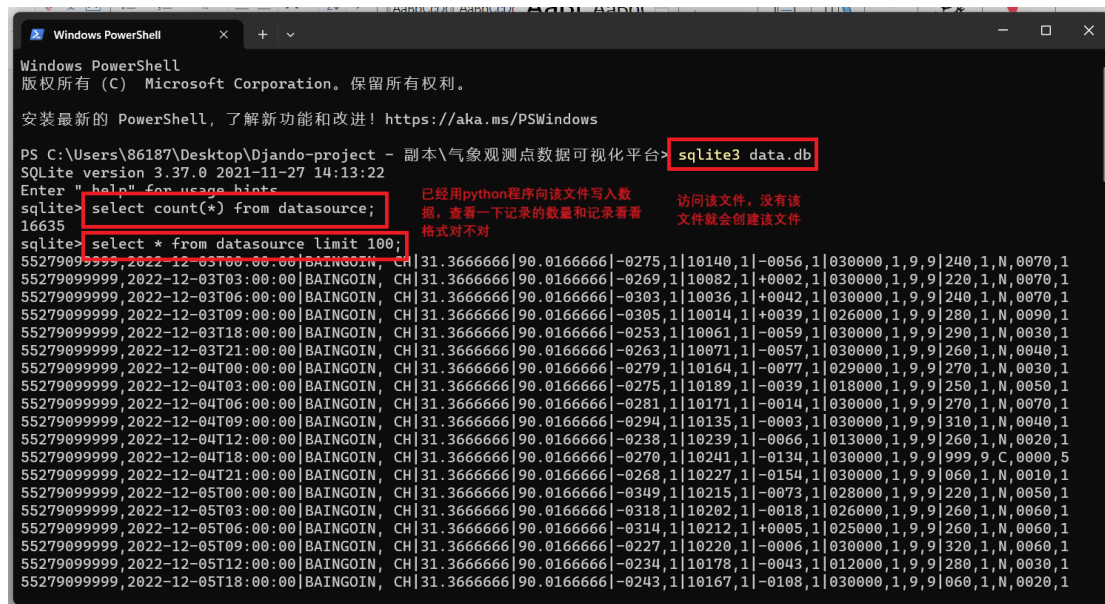
<https://blog.51cto.com/no8g/6343633>

## 2. csv2db

<https://c.biancheng.net/view/vb3b93m.html>

#已经编写好将数据从 csv 读入.db 文件的 python 程序《数据源处理.py》

## 3. 安装 sqlite 后, 创建一个.db 文件并用 python 程序往里面插入数据

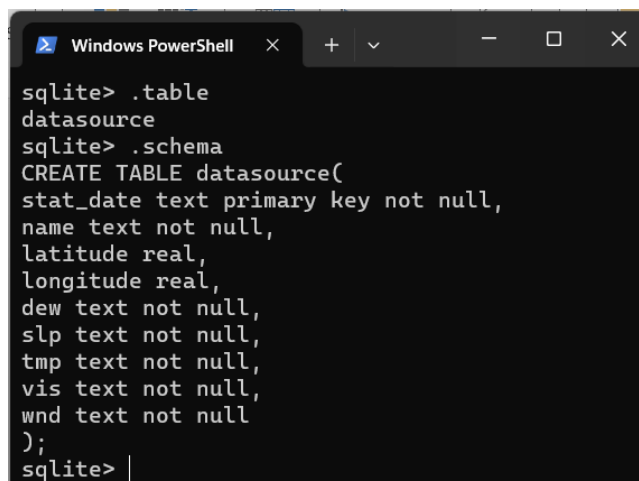


```
Windows PowerShell
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安装最新的 PowerShell, 了解新功能和改进! https://aka.ms/PSWindows

PS C:\Users\86187\Desktop\Django-project - 副本\气象观测点数据可视化平台> sqlite3 data.db
SQLite version 3.37.0 2021-11-27 14:13:22
Enter "help" for usage hints
sqlite> select count(*) from datasource;
16635
sqlite> select * from datasource limit 100;
55279099999,2022-12-03T00:00:00|BAINGOIN,CH|31.3666666|90.0166666|-0275,1|10140,1|-0056,1|030000,1,9,9|240,1,N,0070,1
55279099999,2022-12-03T03:00:00|BAINGOIN,CH|31.3666666|90.0166666|-0269,1|10082,1|+0002,1|030000,1,9,9|220,1,N,0070,1
55279099999,2022-12-03T06:00:00|BAINGOIN,CH|31.3666666|90.0166666|-0303,1|10036,1|+0042,1|030000,1,9,9|240,1,N,0070,1
55279099999,2022-12-03T09:00:00|BAINGOIN,CH|31.3666666|90.0166666|-0305,1|10014,1|+0039,1|026000,1,9,9|280,1,N,0090,1
55279099999,2022-12-03T18:00:00|BAINGOIN,CH|31.3666666|90.0166666|-0253,1|10061,1|-0059,1|030000,1,9,9|290,1,N,0030,1
55279099999,2022-12-03T21:00:00|BAINGOIN,CH|31.3666666|90.0166666|-0263,1|10071,1|-0057,1|030000,1,9,9|260,1,N,0040,1
55279099999,2022-12-04T00:00:00|BAINGOIN,CH|31.3666666|90.0166666|-0279,1|10164,1|-0077,1|029000,1,9,9|270,1,N,0030,1
55279099999,2022-12-04T03:00:00|BAINGOIN,CH|31.3666666|90.0166666|-0275,1|10189,1|-0039,1|018000,1,9,9|250,1,N,0050,1
55279099999,2022-12-04T06:00:00|BAINGOIN,CH|31.3666666|90.0166666|-0281,1|10171,1|-0014,1|030000,1,9,9|270,1,N,0070,1
55279099999,2022-12-04T09:00:00|BAINGOIN,CH|31.3666666|90.0166666|-0294,1|10135,1|-0003,1|030000,1,9,9|310,1,N,0040,1
55279099999,2022-12-04T12:00:00|BAINGOIN,CH|31.3666666|90.0166666|-0238,1|10239,1|-0066,1|013000,1,9,9|260,1,N,0020,1
55279099999,2022-12-04T18:00:00|BAINGOIN,CH|31.3666666|90.0166666|-0270,1|10241,1|-0134,1|030000,1,9,9|999,9,C,0000,5
55279099999,2022-12-04T21:00:00|BAINGOIN,CH|31.3666666|90.0166666|-0268,1|10227,1|-0154,1|030000,1,9,9|060,1,N,0010,1
55279099999,2022-12-05T00:00:00|BAINGOIN,CH|31.3666666|90.0166666|-0349,1|10215,1|-0073,1|028000,1,9,9|220,1,N,0050,1
55279099999,2022-12-05T03:00:00|BAINGOIN,CH|31.3666666|90.0166666|-0318,1|10202,1|-0018,1|026000,1,9,9|260,1,N,0060,1
55279099999,2022-12-05T06:00:00|BAINGOIN,CH|31.3666666|90.0166666|-0314,1|10212,1|+0005,1|025000,1,9,9|260,1,N,0060,1
55279099999,2022-12-05T09:00:00|BAINGOIN,CH|31.3666666|90.0166666|-0227,1|10220,1|-0006,1|030000,1,9,9|320,1,N,0060,1
55279099999,2022-12-05T12:00:00|BAINGOIN,CH|31.3666666|90.0166666|-0234,1|10178,1|-0043,1|012000,1,9,9|280,1,N,0030,1
55279099999,2022-12-05T18:00:00|BAINGOIN,CH|31.3666666|90.0166666|-0243,1|10167,1|-0108,1|030000,1,9,9|060,1,N,0020,1
```

## 4. 解释一下我们的数据库中的存储数据的表



```
Windows PowerShell

sqlite> .table
datasource
sqlite> .schema
CREATE TABLE datasource(
stat_date text primary key not null,
name text not null,
latitude real,
longitude real,
dew text not null,
slp text not null,
tmp text not null,
vis text not null,
wnd text not null
);
sqlite> |
```

这个表的名称为 datasource, 它的各个键的含义如下:

**stat\_date:** text 类型, 是 primary key, 非空, 这个主键是由 csv 文件中的 STATION 和 DATE 字段结合而成的, 中间用逗号隔开;

**latitude, longitude, dew, slp, tmp, vis, wnd:** text 类型, 非空, 同 csv 文件中的字段,

具体含义查看《数据源\_readme.pdf》;

5. 对.db 文件的操作不仅可以在上面的 PowerShell 中进行,也可以在 PyCharm 中进行,前提是要在第 1 步成功安装 sqlite 并添加到环境变量中的 Path 变量中

```
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sqlite>
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