20220326在Linux安裝並使用SQLITE3資料庫及設計C語言連線處理程式

REF 1: <https://www.itread01.com/content/1546801386.html>

REF2: <https://www.itread01.com/p/1393649.html>

(一)下載、組態、編譯並安裝：

[root@lfwiki ~]# wget https://www.sqlite.org/2022/sqlite-autoconf-3380200.tar.gz

# tar xvzf sqlite-autoconf-3380200.tar.gz

# cd sqlite-autoconf-3380200/

# ./configure

# ./make

# ./make install

(二)使用sqlite3命列列來建立freeHB2測試資料庫

# sqlite3 freeHB2;

SQLite version 3.38.2 2022-03-26 13:51:10

Enter ".help" for usage hints.

sqlite> CREATE TABLE CUSTS(id char(10),name char(20),amount float,tel char(20));

sqlite> insert into CUSTS(id,name,amount,tel) values ('10001','小狗',100,'233111');

sqlite> insert into CUSTS(id,name,amount,tel) values ('20002','小貓',200,'233444');

sqlite> insert into CUSTS(id,name,amount,tel) values ('30003','小牛',300,'233777');

sqlite> insert into CUSTS(id,name,amount,tel) values ('50001','小龍',100,'233111');

sqlite> update CUSTS SET NAME='SMALLDOG' WHERE NAME='小狗';

sqlite> select \* from CUSTS;

10001|SMALLDOG|100.0|233111

20002|小貓|200.0|233444

30003|小牛|300.0|233777

50001|小龍|100.0|233111

sqlite> .quit

(三)編寫測試C語言程式來連線查詢freeHB2資料庫內的CUSTS資料表：

# vi sqlA.c

# cat sqlA.c

|  |
| --- |
| // gcc -o sqlA sqlA.c -lsqlite3#include <stdio.h>#include <stdlib.h>#include <sqlite3.h>//每查到一筆記錄的觸發函數int ListRecColumns(void \*p, int n\_column, char \*\*column\_value, char \*\*column\_name){ \*(int \*)p = 0; for(int i =0; i < n\_column; i++){ printf("%s = %s ", column\_name[i], column\_value[i] ? column\_value[i] :"NULL"); } printf("\n"); return 0; }int main(int argc, char \*argv[]){ sqlite3 \*db; char \*err =0; int ret =0; int empty =1; ret = sqlite3\_open("freeHB2",&db); if(ret !=SQLITE\_OK)exit(1); ret = sqlite3\_exec(db, "select \* from CUSTS;" , ListRecColumns, &empty, &err); if(ret != SQLITE\_OK){ sqlite3\_close(db); exit(1); } if(empty)exit(1); sqlite3\_close(db); return 0;} |

編譯

# gcc -o sqlA sqlA.c -lsqlite3

# ls -lt

total 152216

-rwxr-xr-x 1 root root 19712 Mar 26 22:42 sqlA

-rw-r--r-- 1 root root 739 Mar 26 22:42 sqlA.c

-rw-r--r-- 1 root root 8192 Mar 26 21:45 freeHB2

執行

# ./sqlA

id = 10001 name = SMALLDOG amount = 100.0 tel = 233111

id = 20002 name = 小貓 amount = 200.0 tel = 233444

id = 30003 name = 小牛 amount = 300.0 tel = 233777

id = 50001 name = 小龍 amount = 100.0 tel = 233111