

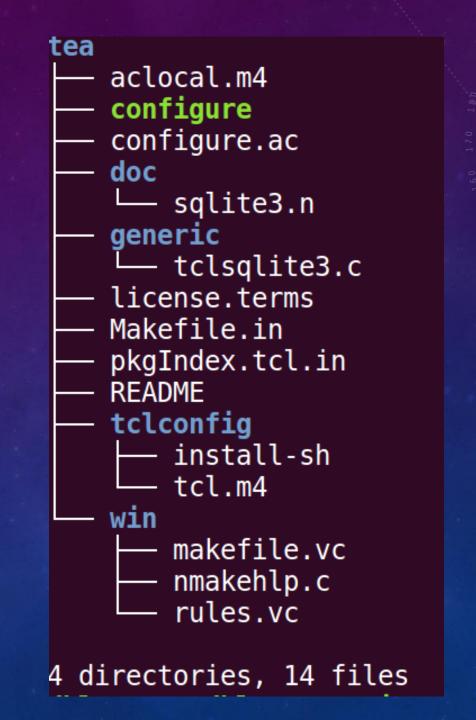
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OBJECTIVES

- Store the info of file system to relational database
 - The structure information of file system
 - Get the structure information of file system
 - Store the info of file system to DB
 - Retrieve the tree info of file system from DB

THE STRUCTURE INFORMATION OF FILE SYSTEM



GET THE STRUCTURE INFORMATION OF FILE SYSTEM USING PYTHON

```
import os
rootDir='/etc/network'
for (dirName, dirs, files) in os.walk(rootDir):
  for fileName in files:
    filePath = os.path.join(dirName, fileName)
    parentFileName=os.path.basename(dirName)
    print(fileName,':',parentFileName,':',os.path.getsize(filePath))
  for dir in dirs:
    print(dir)
print('exit')
```

TEST CASE

- Sqlite
 - http://www.sqlite.org/2018/sqliteautoconf-3230100.tar.gz
 - tar xvzf sqlite-autoconf-3230100.tar.gz

```
---KEADME.txt : 3558
 ---Replace.cs : 7272
 ---Makefile.am : 828
 ---sqlite3.1 : 8928
        ---pkgIndex.tcl.in : 167
        ---license.terms : 257
        ---configure.ac : 8308
        ---Makefile.in : 15902
        ---configure : 280772
        ---README : 1338
       |---aclocal.m4 : 147
             |---tclsqlite3.c : 117731
       |---generic:1
             |---sqlite3.n : 494
       |---doc:1
             |---rules.vc : 18743
              |---nmakehlp.c : 17368
             |---makefile.vc : 13830
       |---win:3
              |---tcl.m4 : 134055
              |---install-sh : 13868
       |---tclconfig:2
 ---tea:18
Total Dirs:5 Total Files:37
```

```
#!/usr/bin/python
import sys
import mysql.connector
#mysql config
config = {
  'host': 'localhost',
  'user': 'myuser',
  'password': 'mypwd',
  'port': 3306,
  'database': 'dbsclab2018',
  'charset': 'utf8'
```

STORE THE INFO OF FILE SYSTEM TO DB 1/2

```
try:
    cnn = mysql.connector.connect(**config)
except mysql.connector.Error as e:
    cnn = None
    print('connect fails!{}'.format(e))
if None==cnn:
    sys.exit()
```

```
cursor = cnn.cursor()
sql= 'SELECT name,dept_name,salary from instructor'
try:
  cursor.execute(sql)
  # display the result
  for name, dept_name, salary in cursor:
    print(name.decode('utf-8'),',',dept_name,salary)
except mysql.connector.Error as e:
  print('query error!{}'.format(e))
finally:
  cursor.close()
  cnn.close()
    ©LXD
```

STORE THE INFO OF FILE SYSTEM TO DB 2/2

