virtualenv：

$ pip3 install virtualenv

第一步，创建目录：

Mac:~ michael$ mkdir myproject

Mac:~ michael$ cd myproject/

Mac:myproject michael$

第二步，创建一个独立的Python运行环境，命名为venv：

Mac:myproject michael$ virtualenv --no-site-packages venv #不带任何第三方包

Mac:myproject michael$ source venv/bin/activate

进入venv环境

(venv)Mac:myproject michael$

退出当前的venv环境，使用deactivate命令：

(venv)Mac:myproject michael$ deactivate

Mac:myproject michael$

select操作时加update锁

sqlalchemy

If you are using the ORM, try the with\_for\_update function:

foo = session.query(Foo).filter(Foo.id==1234).with\_for\_update().one()

# this row is now locked

foo.name = 'bar'

session.add(foo)

session.commit()

# this row is now unlocked

Python supports closures: functions that refer to variables from the scope in which they were defined.

When you reference a variable in an expression, the Python interpreter will traverse the

scope to resolve the reference in this order:

1. The current function’s scope

2. Any enclosing scopes (like other containing functions)

3. The scope of the module that contains the code (also called the global scope)

4. The built-in scope (that contains functions like len and str)

If none of these places have a defined variable with the referenced name, then a

NameError exception is raised.

Assigning a value to a variable works differently. If the variable is already defined in the current scope, then it will just take on the new value. If the variable doesn’t exist in the current scope, then Python treats the assignment as a variable definition. The scope of the newly defined variable is the function that contains the assignment.

PIP install 时 报需要SSL模块

在你的“C:\Users\你的用户名\”目录下创建“pip”目录，“pip”目录下创建“pip.ini”文件（注意：以UTF-8 无BOM格式编码）；

“pip.ini”文件内容：

[global]

index-url=http://mirrors.aliyun.com/pypi/simple/

[install]

trusted-host=mirrors.aliyun.com

国内镜像

http://pypi.douban.com/simple/ 豆瓣

http://mirrors.aliyun.com/pypi/simple/ 阿里

http://pypi.hustunique.com/simple/ 华中理工大学

http://pypi.sdutlinux.org/simple/ 山东理工大学

http://pypi.mirrors.ustc.edu.cn/simple/ 中国科学技术大学

https://pypi.tuna.tsinghua.edu.cn/simple 清华

以名字访问元组内容：namedtuple

from collections import namedtuple

Student = namedtuple('student', ['name', 'age', 'sex', 'email'])

s = Student('Jim', 18, 'male', 'jim@gmail.com')

s.name #Jim

isinstance(s,tuple) #True

统计字频：Counter

from collections import Counter

有序字典：OrderedDict

from collections import OrderedDict

双端循环队列：deque

from collections import deque

python对象与文件的保存和加载：pickle

pickle.dump(obj, open('file','w'))

obj = pickle.load(open('file'))

可迭代对象(iterable)、迭代器(iterator):

iter(obj) 产生 iterator #obj is iterable, obj has \_\_iter\_\_ or \_\_getitem\_\_

from collections import Iterable, Iterator

实现可迭代对象：

class MyIterable(Iterable):

def \_\_init\_\_(self,...):

def \_\_iter\_\_(self,...): return MyIterator(self,...)

实现迭代器：

class MyIterator(Iterator):

def \_\_init\_\_(self,...):

def next(self,...):

for语句迭代多个可迭代对象

并行：zip

串行：itertools.chain

拆分含有多种分隔符的字符串：

1、连续使用split()方法

2、使用re.split(r'[...]',str)