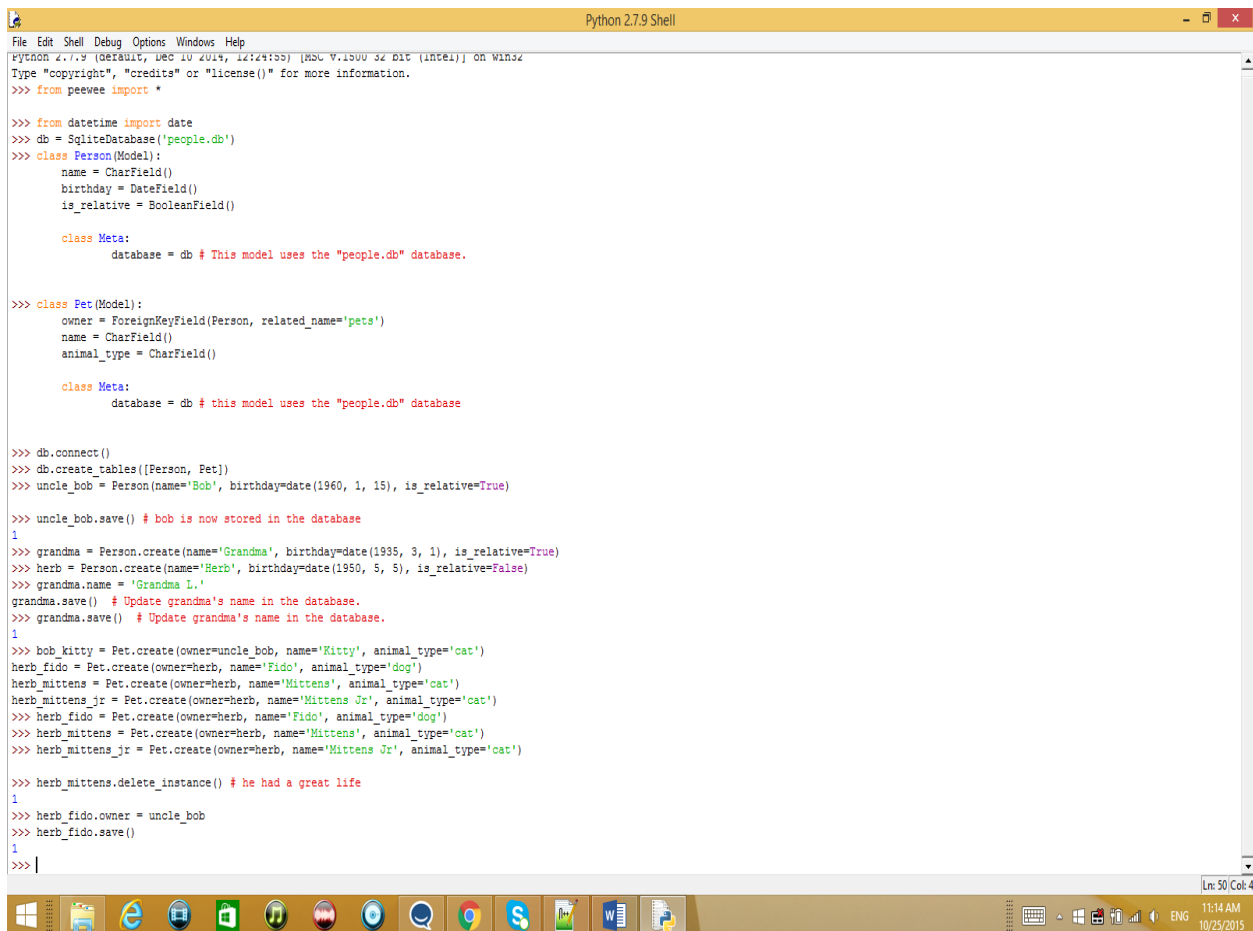


1. I read and implemented the peewee tutorial on this link
<http://docs.peewee-orm.com/en/latest/peewee/quickstart.html#quickstart>
For defining the model, storing and retrieving the data. See Figure1 and Figure 2
2. Also I created web application to access, store, retrieve, and delete data from SQLite database

Using regular SQL and ORM (peewee.py) and Bottle.py .See Figure 3, 4, 5, and 6.

Also you can see my code on my repository on github using this URL

https://github.com/farahshleemon/Advanced-DataBase_HWs



```
Python 2.7.9 Shell
File Edit Shell Debug Options Windows Help
Python 2.7.9 (default, Dec 10 2014, 12:24:15) [MSC v.1500 32 bit (Intel)] on Win32
Type "copyright", "credits" or "license()" for more information.
>>> from peewee import *

>>> from datetime import date
>>> db = SqliteDatabase('people.db')
>>> class Person(Model):
    name = CharField()
    birthday = DateField()
    is_relative = BooleanField()

    class Meta:
        database = db # This model uses the "people.db" database.

>>> class Pet(Model):
    owner = ForeignKeyField(Person, related_name='pets')
    name = CharField()
    animal_type = CharField()

    class Meta:
        database = db # this model uses the "people.db" database

>>> db.connect()
>>> db.create_tables([Person, Pet])
>>> uncle_bob = Person(name='Bob', birthday=date(1960, 1, 15), is_relative=True)

>>> uncle_bob.save() # bob is now stored in the database
1
>>> grandma = Person.create(name='Grandma', birthday=date(1935, 3, 1), is_relative=True)
>>> herb = Person.create(name='Herb', birthday=date(1950, 5, 5), is_relative=False)
>>> grandma.name = 'Grandma L.'
>>> grandma.save() # Update grandma's name in the database.
>>> grandma.save() # Update grandma's name in the database.
1
>>> bob_kitty = Pet.create(owner=uncle_bob, name='Kitty', animal_type='cat')
>>> herb_fido = Pet.create(owner=herb, name='Fido', animal_type='dog')
>>> herb_mittens = Pet.create(owner=herb, name='Mittens', animal_type='cat')
>>> herb_mittens_jr = Pet.create(owner=herb, name='Mittens Jr', animal_type='cat')
>>> herb_fido = Pet.create(owner=herb, name='Fido', animal_type='dog')
>>> herb_mittens = Pet.create(owner=herb, name='Mittens', animal_type='cat')
>>> herb_mittens_jr = Pet.create(owner=herb, name='Mittens Jr', animal_type='cat')

>>> herb_mittens.delete_instance() # he had a great life
1
>>> herb_fido.owner = uncle_bob
>>> herb_fido.save()
1
>>>
```

Figure 1

```
Python 2.7.9 Shell
File Edit Shell Debug Options Windows Help
>>> for person in Person.select():
>>>     print person.name, person.is_relative

Bob True
Grandma L. True
Herb False
>>> query = Pet.select().where(Pet.animal_type == 'cat')
>>> for pet in query:
>>>     print pet.name, pet.owner.name

>>>
>>> query = Pet.select().where(Pet.animal_type == 'cat')
>>> for pet in query:
>>>     print pet.name, pet.owner.name

>>> bob_kitty = Pet.create(owner=uncle_bob, name='Kitty', animal_type='cat')
>>> query = Pet.select().where(Pet.animal_type == 'cat')
>>> for pet in query:
>>>     print pet.name, pet.owner.name

Kitty Bob
Mittens Jr Herb
Kitty Bob
>>> for pet in Pet.select().join(Person).where(Person.name == 'Bob'):
>>>     print pet.name

Kitty
Fido
Kitty
>>> for pet in Pet.select().where(Pet.owner == uncle_bob).order_by(Pet.name):
>>>     print pet.name

Fido
Kitty
Kitty
>>> for person in Person.select().order_by(Person.birthday.desc()):
>>>     print person.name, person.birthday

Bob 1960-01-18
Herb 1950-05-05
Grandma L. 1935-03-01
>>> |
```

Figure 2

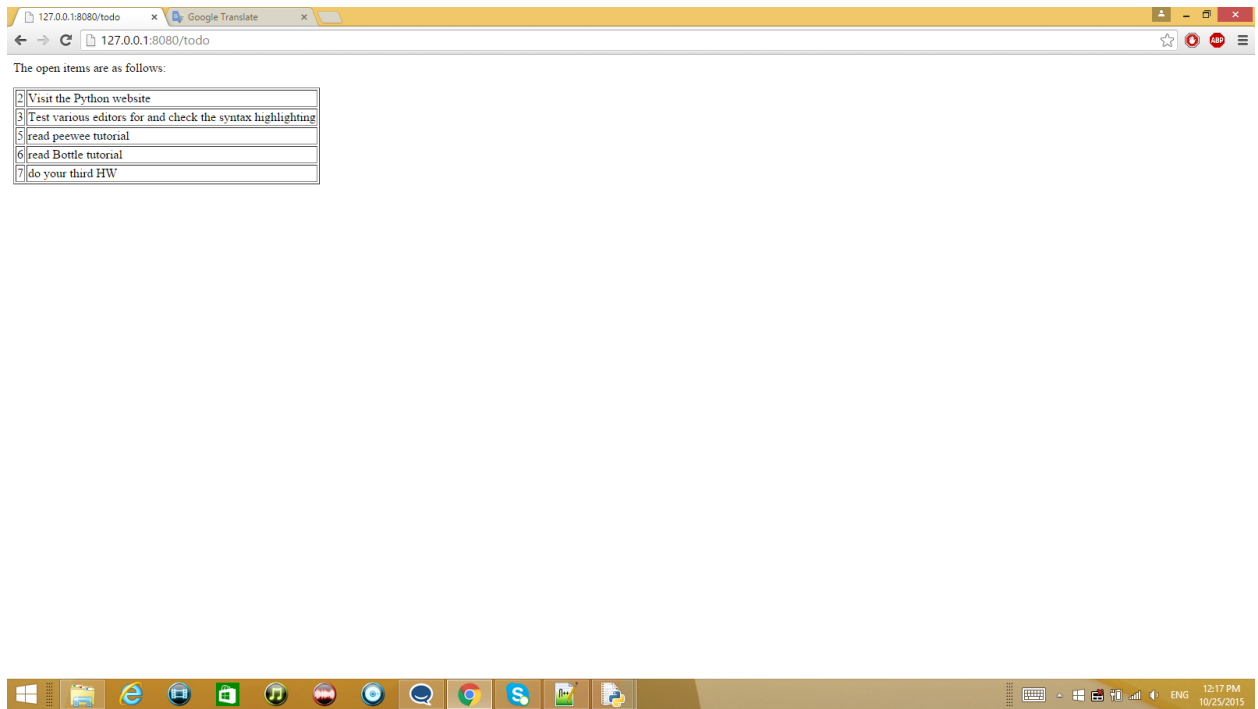


Figure 3

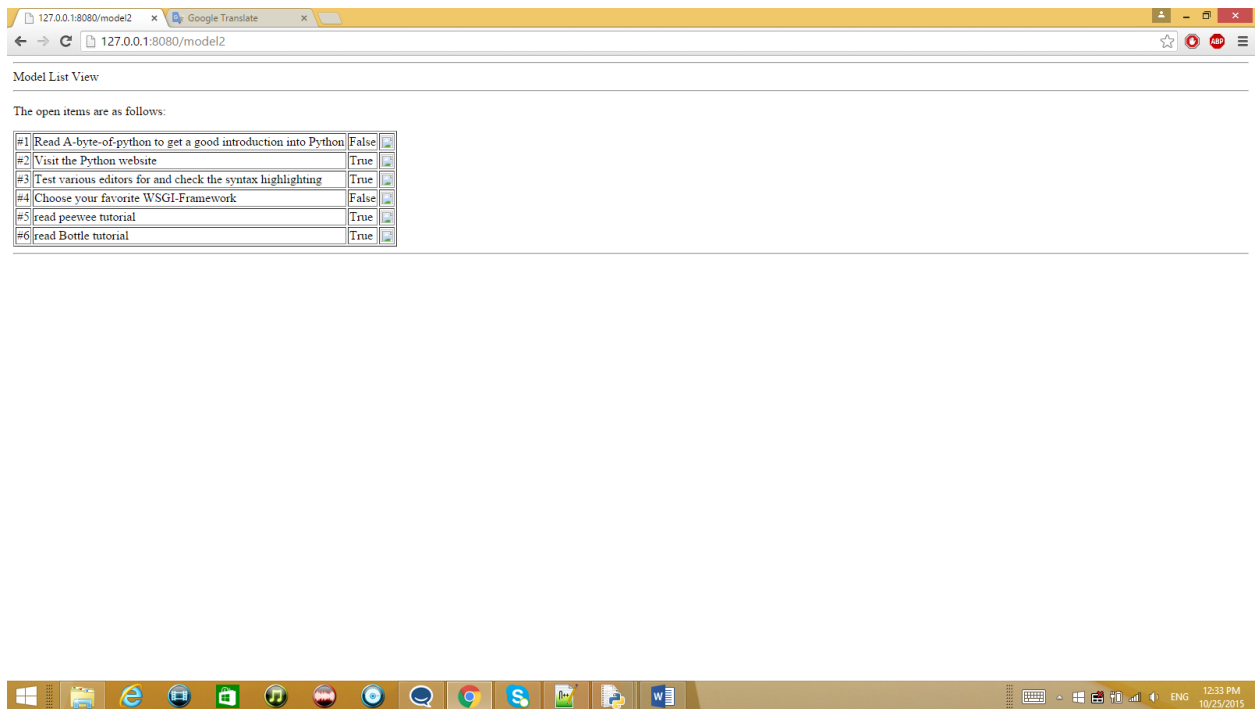


Figure 4

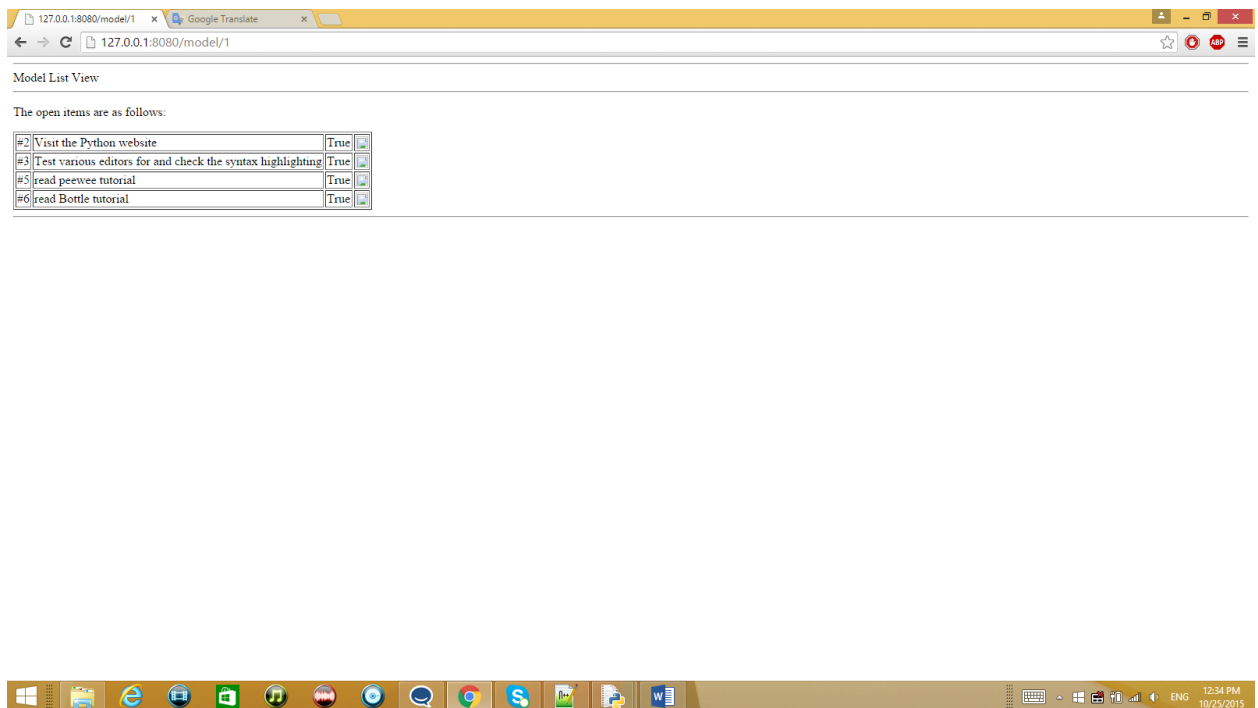


Figure 5

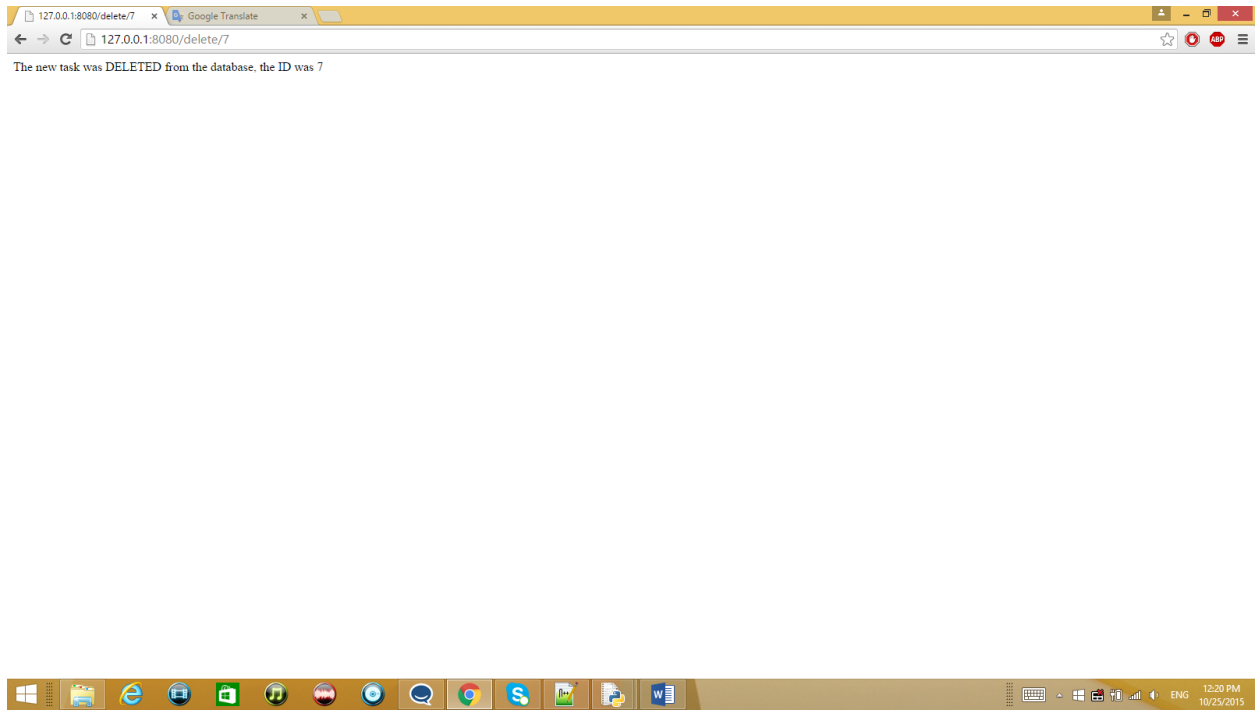


Figure 6