

1.

```
test1= 'This is a test of the emergency text system'
len(test1)
43
outfile=open('text.txt', 'wt')
outfile.write(test1)
43
outfile.close()
with open('text.txt','wt') as outfile:
outfile.write(test1)
43
```

2.

```
with open('test.txt','rt') as infile:
test2= infile.read()
len(test2)
43
test1==test2
True
```

3.

```
text = '''title,author,year
The Weirdestone of Brisingamen,Alan Garner,1960
Perdido Street Station,China Miéville,2000
Thud!,Terry Pratchett,2005
The Spellman Files,Lisa Lutz,2007
Small Gods,Terry Pratchett,1992
'''
with open('books.csv','wt') as outfile:
outfile.write(text)
201
```

4.

```
import sqlite3
db = sqlite3.connect('books.db')
curs=db.cursor()
curs.execute('''create table book(title text, author, author text, year int)''')
<sqlite3.cursor object as 0*1006e90>
db.commit()
```

5.

```
import csv
import sqlite
ins_str = 'insert into book values(?,?,?)'
with open('books.csv','rt') as infile:
books = csv.DictReader(infile)
for book in books:
curs.executive(ins_str, (book['title'], book['author'], book['year']))

<sqlite3.Cursor object at 0*1007b21f0>
<sqlite3.Cursor object at 0*1007b21f0>
<sqlite3.Cursor object at 0*1007b21f0>
<sqlite3.Cursor object at 0*1007b21f0>
<sqlite3.Cursor object at 0*1007b21f0>
```

```
db.commit()
```

6.

```
sql='select title from book order by title asc'
for row in db.execute(sql):
    print(row)
    ('Perdido Street Station',)
    ('Small Gods',)
    ('The Spellman Files',)
    ('The Weirdstone of Brisingamen',)
    ('Thud!',)
```

```
for row in db.execute(sql):
    print(row[0])
    Perdido Street Station
    Small Gods
    The Spellman Files
    The Weirdstone of Brisingamen
    Thud!
```

```
sql = '''selct title from book order by case when (title like "The%") then
substr(title,5) else title end'''
for row in db.execute(sql):
    print(row[0])
    Perdido Sreet Station
    Small Gods
    The Spellman Files
    Thud!
    The Weirdstone of Brisingamen
```

7.

```
for row in db.execute('select*from book order by year'):
    print(row)
    ('The Weirdstone of Brisingamen','Alan Graner', 1960)
    ('Small Gods','Terry Pratchett',1992)
    ('Perdido Street Station','China Mieville',2000)
    ('Thud!','Terry Pratchett',2005)
    ('The Spellman Files','Lisa Lutz', 2007)
```

8.

```
import sqlalchemy
conn = sqlalchemy.create_engine('sqlite:///books.db')
sql='select title from book order by title asc'
rows = conn.execute(sql)
for row in rows:
    print(row)
    ('Perdido Sreet Station')
    ('Small Gods')
    ('The Spellman Files')
    ('Thud!')
    ('The Weirdstone of Brisingamen')
```

9.

```
import redis
conn=redis.Redis()
```

```
conn.delete('test')
1
conn.hmest('test',{'count':1,'name':'Fester Bestertester'})
True
conn.hgetall('test')
{b'name':b'Fester Bestertester',b'count':b'1'}
```

10.

```
conn.hincrby('test','count',3)
4
conn.hget('test','count')
b'4'
```