1. Set the variable test1 to the string 'This is a test of the emergency text system,' and save test1 to a file named test.txt.

test1="This is a test of the emergency text system"  
print(test1)  
with open("test.txt",'w') as file:  
 file.write(test1)  
 file.close()

1. Read the contents of the file test.txt into the variable test2. Is there a difference between test 1 and test 2?

with open("test.txt","r") as file:  
 test2=file.read()  
 print (test2)

print(test1 == test2)

1. Create a CSV file called books.csv by using these lines:

title,author,year

The Weirdstone 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

s='''title,author,year  
The Weirdstone 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",'w') as file:  
 file.write(s)

1. Use the sqlite3 module to create a SQLite database called books.db, and a table called books with these fields: title (text), author (text), and year (integer).

import sqlite3  
db=sqlite3.connect('books.db')  
cursor=db.cursor()  
cursor.execute("CREATE TABLE book(title text,author text,year int)")  
db.commit()  
db.close()

1. Read books.csv and insert its data into the book table.

import sqlite3  
import csv  
db=sqlite3.connect("books.db")  
cursor=db.cursor()  
with open("books.csv","r") as file:  
 books=csv.DictReader(file):  
   
 for i in books:  
 cursor.execute("INSERT INTO books VALUES (?,?,?)",(i['title'],i['author'],i['year']))  
db.commit()  
db.close()

1. Select and print the title column from the book table in alphabetical order.

import sqlite3  
conn=sqlite3.connect("books.db")  
cursor=conn.cursor()  
output=cursor.execute("SELECT title FROM books ORDER BY title ASC")  
for i in output:  
 print(i[0])  
conn.commit()  
conn.close()

1. From the book table, select and print all columns in the order of publication.

import sqlite3  
conn=sqlite3.connect("books.db")  
cursor=conn.cursor()  
output=cursor.execute("SELECT \* books ORDER BY year")  
for i in output:  
 print(i)  
cursor.close()

1. Use the sqlalchemy module to connect to the sqlite3 database books.db that you just made in exercise 6.

import sqlalchemy  
conn = sqlalchemy.create\_engine('sqlite:///books.db')  
conn

1. Install the Redis server and the Python redis library (pip install redis) on your computer. Create a Redis hash called test with the fields count (1) and name ('Fester Bestertester'). Print all the fields for test.

python -m pip install redis

import redis  
conn=redis.Redis()  
conn.hset('test',{  
 'count':1,  
 'name':'Fester Bestertester'  
})  
conn.hgetall('test')

1. Increment the count field of test and print it.

conn.hincrby('test', 'count', 1)  
conn.hget('test', 'count')