**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.**

Answer 1:

test1 = 'This is a test of the emergency text system'

with open('test.txt', 'w') as file:

file.write(test1)

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

Answer 2:

with open('test.txt', 'r') as file:

test2 = file.read()

**3. 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**

Answer 3:

import csv

data = [

['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', newline='') as file:

writer = csv.writer(file)

writer.writerows(data)

**4. 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).**

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

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

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

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

Answer 4-8:

import sqlite3

#Create SQLite database and table

conn = sqlite3.connect('books.db')

cursor = conn.cursor()

cursor.execute('''CREATE TABLE IF NOT EXISTS books (

title TEXT,

author TEXT,

year INTEGER

)''')

conn.commit()

#Read CSV and insert into the table

with open('books.csv', 'r') as file:

csv\_reader = csv.reader(file)

next(csv\_reader) # skip header

for row in csv\_reader:

cursor.execute('INSERT INTO books VALUES (?, ?, ?)', row)

conn.commit()

#Select and print title column alphabetically

cursor.execute('SELECT title FROM books ORDER BY title')

print(cursor.fetchall())

#Select and print all columns in the order of publication

cursor.execute('SELECT \* FROM books ORDER BY year')

print(cursor.fetchall())

from sqlalchemy import create\_engine, text

engine = create\_engine('sqlite:///books.db')

connection = engine.connect()

9. 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.

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