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.

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

and test 2?

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

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.

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.

python

```
test1 = "This is a test of the emergency text system,"

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

    file.write(test1)
```

1.
2. python

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

    test2 = file.read()


# check if there is any difference

print(test1 == test2) # True
```

3.
4. python

```
import csv


books = [

    ["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(books)
```

5.
6. python

```
import sqlite3


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

cursor = conn.cursor()


cursor.execute("CREATE TABLE books (title TEXT, author TEXT,
year INTEGER)")

conn.commit()


cursor.close()

conn.close()
```

7.
8. python

```
import csv


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

cursor = conn.cursor()


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

    reader = csv.reader(file)

    next(reader) # skip the header row

    for row in reader:
```

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


conn.commit()

cursor.close()

conn.close()
```

9.
10. python

```
conn = sqlite3.connect("books.db")

cursor = conn.cursor()


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

for row in cursor:

    print(row[0])


cursor.close()

conn.close()
```

11.
12. python

```
conn = sqlite3.connect("books.db")

cursor = conn.cursor()


cursor.execute("SELECT title, author, year FROM books ORDER BY
year")

for row in cursor:

    print(row[0], row[1], row[2])
```

```
cursor.close()

conn.close()
```

13.
14. python

```
from sqlalchemy import create_engine


engine = create_engine("sqlite:///books.db")

connection = engine.connect()
```

15.
16. python

```
import redis


r = redis.Redis(host='localhost', port=6379, db=0)

r.hset("test", "count", 1)

r.hset("test", "name", "Fester Bestertester")

print(r.hgetall("test"))
```

17.
18. python

```
r.hincrby("test", "count", 1)

print(r.hget("test", "count"))
```

19.