**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,'

filee = open('test.txt','w')

filee.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?**

file2 = open('test.txt','r')

test2 = file2.readline()

test2

if test1==test2:

print('Both are same')

**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**

import csv

rows =[ ['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(rows)

**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).**

import sqlite3

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

c = conn.cursor()

c.execute('create table books(title varchar(20),author varchar(20), year int)')

conn.commit()

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

import pandas as pd

read\_books = pd.read\_csv('books.csv',encoding='unicode\_escape')

read\_books.to\_sql('books', conn, if\_exists='append', index = False)

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

c.execute('select title from books order by title asc')

print(c.fetchall())

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

c.execute('select title, author,year from books order by year')

df = pd.DataFrame(c.fetchall(), columns=['title','author','year'])

df

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

import sqlalchemy

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

rows = engine.execute('select \* from books')

for i in rows:

print(i)

**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.**

!pip install redis

import redis

conn = redis.Redis()

conn.delete('test')

conn.hmset('test', {'count': 1, 'name': 'Fester Bestertester'})

conn.hgetall('test')

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

conn.hincrby('test','count', 3)