

1.

The homework was done using vim.

2.

```
sqlite3 data.db
create table data(temp real, date text, time text);
.exit
```

3.

```
#!/usr/bin/python3
import sqlite3
import serial
import time

#Get the time and date of data point
date = time.strftime("%Y-%m-%d")
time = time.strftime("%H:%M:%S")

#Send byte sequence over serial, read temperature output as a float
ser = serial.Serial('/dev/ttyACM0', 115200, timeout = 5)
ser.write(b'GET DATA')
temp_kelvin = float(ser.readline().decode().strip())
ser.close()

#Convert kelvin to fahrenheit
temp_f = 1.8*temp_kelvin - 459.4

#Open database connection
s = sqlite3.connect('data.db')
c = s.cursor()

#Insert data into sql database, if it doesn't work, print error message
try:
    c.execute("insert into data values (?, ?, ?);", (temp_f, date, time))
    s.commit()
except:
    print('Error storing data in database');

#Close database connection
s.close()
```

4.

I used a crontab entry as follows:

```
crontab -e
* * * * * cd /home/iviolette/datalogger && /usr/bin/python3 data_query.py
```

5.

```
enscript -b '$n %E %C|$$|Isaac Violette' -T 4 -M Letter -p HW9.ps HW9
```