Emerson Benn

Embedded Linux Assignment 3.3

```
1   import os
2   import time
3   import sqlite3 as mydb
4   import sys
5   """ Log Current Time, Temperature in Celsius and Fahrenheit To an Sqlite3 database """
6   def readTemp():
7       tempfile = open("/sys/bus/w1/devices/28-00044a3df7ff/w1_slave") #opens temp sensor's data file
8       tempfile_text = tempfile.read() #read in temp data
9       currentTime=time.strftime('%x %X %Z')
10      tempfile.close()
11      tempC=float(tempfile_text.split("\n")[1].split("t=")[1])/1000 #format data
12      tempF=tempC*9.0/5.0+32.0 #convert to F
13      return [currentTime, tempC, tempF]
14
15
16  def logTemp():
17      con = mydb.connect('temperatureLog.db')
18      with con:
19          try:
20              [t,C,F]=readTemp()
21              print "Current temperature is: %s F" %F
22              cur = con.cursor()
23              #sql = "insert into TempData values(?,?,?)"
24              cur.execute('insert into TempData values(?,?,?)', (t,C,F)) #write temp log to database
25              print "Temperature logged"
26          except:
27              print "Error!!"
28              #exception thrown if error with database
29
30  #log temperature every 30 seconds 20 times
31  for i in range(0, 20):
32      logTemp()
33      time.sleep(30)
34
```

Temp vs Time