**Assignment 2:**

Build a python code, Assume u get temperature and humidity values (generated with a random function to a variable) and write a condition to detect an alarm in case of high temperature continuously.

# CODE:

import struct, array, time, io, fcntl

I2C\_SLAVE=0x0703

HDC1008\_ADDR = 0x40

bus=1

fr = io.open("/dev/i2c-"+str(bus), "rb", buffering=0)

fw = io.open("/dev/i2c-"+str(bus), "wb", buffering=0)

fcntl.ioctl(fr, I2C\_SLAVE, HDC1008\_ADDR)

fcntl.ioctl(fw, I2C\_SLAVE, HDC1008\_ADDR)

time.sleep(0.015)

s = [0x02,0x02,0x00]

s2 = bytearray( s )

fw.write( s2 )

time.sleep(0.015)

s = [0x00]

s2 = bytearray( s )

fw.write( s2 )

time.sleep(0.0625)

data = fr.read(2)

buf = array.array('B', data)

print ( "Temp: %f" % ( ((((buf[0]<<8) + (buf[1]))/65536.0)\*165.0 ) - 40.0 ) )

time.sleep(0.015)

s = [0x01]

s2 = bytearray( s )

fw.write( s2 )

time.sleep(0.0625)

data = fr.read(2)

buf = array.array('B', data)

print ( "Humidity: %f" % ( ((((buf[0]<<8) + (buf[1]))/65536.0)\*100.0 ) ) )

**Thus the assigned task was completed successfully.**