Assignment -2

Assignment Date	
Student Name	Manikandan
Student Roll Number	20ECL09
Maximum Marks	2 Marks

Question-1:

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.

Solution:

```
import time
# import adafruit dht library.
import Adafruit_DHT
# import Adafruit IO REST client.
from Adafruit_IO import Client, Feed
# Delay in-between sensor readings, in seconds.
DHT_READ_TIMEOUT = 5
# Pin connected to DHT22 data pin
DHT_DATA_PIN = 26
# Set to your Adafruit IO key.
# Remember, your key is a secret,
# so make sure not to publish it when you publish this code!
ADAFRUIT_IO_KEY = 'YOUR_AIO_KEY'
# Set to your Adafruit IO username.
# (go to https://accounts.adafruit.com to find your username).
ADAFRUIT_IO_USERNAME = 'YOUR_AIO_USERNAME'
# Create an instance of the REST client.
aio = Client(ADAFRUIT_IO_USERNAME, ADAFRUIT_IO_KEY)
# Set up Adafruit IO Feeds.
temperature_feed = aio.feeds('temperature')
humidity_feed = aio.feeds('humidity')
# Set up DHT22 Sensor.
dht22_sensor = Adafruit_DHT.DHT22
while True:
 humidity, temperature = Adafruit_DHT.read_retry(dht22_sensor,
DHT_DATA_PIN)
 if humidity is not None and temperature is not None:
 print('Temp={0:0.1f}*C Humidity={1:0.1f}%'.format(temperature,
humidity))
 # Send humidity and temperature feeds to Adafruit IO
 temperature = '%.2f'%(temperature)
 humidity = '%.2f'%(humidity)
```

```
 aio.send(temperature_feed.key, str(temperature))
 aio.send(humidity_feed.key, str(humidity))
 else:
 print('Failed to get DHT22 Reading, trying again in ',
DHT_READ_TIMEOUT, 'seconds')
 # Timeout to avoid flooding Adafruit IO
 time.sleep(DHT_READ_TIMEOUT)
```