Question-1:

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

Solution:

```
import random
import time
while True:
  Temperature = random.randint(0,150)
  Humidity = random.randint(0,100)
  if Temperature > 100 and Humidity > 80:
    print("Temperature : " + str(Temperature))
    print("Humidity : " + str(Humidity))
    print("Temperature and Humidity is High")
    print("Alarm On !!!")
    print(" ")
    time.sleep(2)
  else:
    print("Temperature : " + str(Temperature))
    print("Humidity : " + str(Humidity))
    print("Range is Normal")
    print(" ")
```

```
import random
import time
while True:
   Temperature = random.randint(0,150)
    Humidity = random.randint(0,100)
   if Temperature > 100 and Humidity > 80:
       print("Temperature : " + str(Temperature))
       print ("Humidity : " + str (Humidity))
       print ("Temperature and Humidity is High")
       print ("Alarm On !!!")
       print(" ")
        time.sleep(2)
    else:
        print("Temperature : " + str(Temperature))
        print("Humidity: " + str(Humidity))
        print ("Range is Normal")
        print(" ")
```

```
Python 3.10.7 (tags/v3.10.7:6cc6bl3, Sep 5 2022, 14:08:36) [MSC v.1933 64 bit ( ~
AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
======== RESTART: C:\Users\ELCOT\Desktop\Assignment 2.py ==========
Temperature : 66
Humidity: 95
Range is Normal
Temperature: 100
Humidity : 52
Range is Normal
Temperature : 64
Humidity : 1
Range is Normal
Temperature : 103
Humidity: 77
Range is Normal
Temperature : 9
Humidity: 46
Range is Normal
Temperature: 88
Humidity: 17
Range is Normal
Temperature: 127
Humidity: 82
Temperature and Humidity is High
Alarm On !!!
```

Range is Normal

Temperature : 80 Humidity : 83 Range is Normal

Temperature : 125 Humidity : 30 Range is Normal

Temperature : 139 Humidity : 7 Range is Normal

Temperature : 2 Humidity : 18 Range is Normal

Temperature : 24 Humidity : 29 Range is Normal

Temperature : 18 Humidity : 88 Range is Normal

Temperature : 143 Humidity : 39 Range is Normal

Temperature : 14 Humidity : 63 Range is Normal

Temperature : 111 Humidity : 96

Temperature and Humidity is High

Alarm On !!!