

ASSIGNMENT-2

Name:Sakthi Soundarya

Reg no:311119106043

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.

Python code:

```
import random
import time
while (1):
    temp = random.randint(0, 100)
    humidity = random.randint(0, 100)
    if temp>60 and humidity>60:
        print("ALERT!! Detected temperature: "+str(temp)+"°C"+" "+" Detected
humidity: "+str(humidity))
    elif temp > 60:
        print("ALERT!! Detected temperature: " + str(temp) + "°C")
    elif humidity > 60:
        print("ALERT!! Detected humidity: "+str(humidity))
    time.sleep(1)
```

The image shows a Python IDE window titled 'pythonProject - main.py'. The editor contains a script that imports 'random' and 'time', then enters a 'while' loop. Inside the loop, it generates random temperature and humidity values, prints them, and checks if the temperature is above 80 or the humidity is above 90. If either condition is met, it prints an alert message. The script also includes a 1-second sleep at the end of each loop iteration.

```
1 import random
2 import time
3 while True:
4     temp = random.randint(10, 100)
5     humidity = random.randint(1, 100)
6     tempstr and humiditystr:
7     print("ALERT!! Detected temperature: " + str(temp) + "°C" + " Detected humidity: " + str(humidity))
8     if temp > 80:
9         print("ALERT!! Detected temperature: " + str(temp) + "°C")
10    elif humidity > 90:
11        print("ALERT!! Detected humidity: " + str(humidity))
12    time.sleep(1)
```

The Run console shows the output of the script, displaying the generated temperature and humidity values and the corresponding alert messages. The output is as follows:

```
ALERT!! Detected humidity: 72
ALERT!! Detected temperature: 79°C
ALERT!! Detected temperature: 87°C Detected humidity: 95
ALERT!! Detected temperature: 81°C Detected humidity: 78
ALERT!! Detected humidity: 95
ALERT!! Detected temperature: 81°C Detected humidity: 42
ALERT!! Detected humidity: 72
ALERT!! Detected humidity: 89
ALERT!! Detected humidity: 95
```

The bottom of the IDE shows the Windows taskbar with the search bar and various application icons. The system tray displays the date and time as 12:38 PM on 10/10/2022.