

ASSIGNMENT-2

Name:Oviyalakshmi S

Reg no:311119106036

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 40°C 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     elif temp > 40:
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 at the bottom 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: 91°C Detected humidity: 42
ALERT!! Detected humidity: 72
ALERT!! Detected humidity: 89
ALERT!! Detected humidity: 95
```

The IDE interface includes a sidebar with a file explorer showing the project structure, a Run and Debug console, and a status bar at the bottom with system information and a search bar.