

ASSIGNMENT 2

Build a python code, Assume you 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.

Code:

```
import random

import time

while(True):

    Temp=random.randint(20,48)

    Humd=random.randint(20,100)

    randomDelay = random.randint(1,3)

    time.sleep(randomDelay)

    print("\nTemperature =", Temp,"degree celsius")

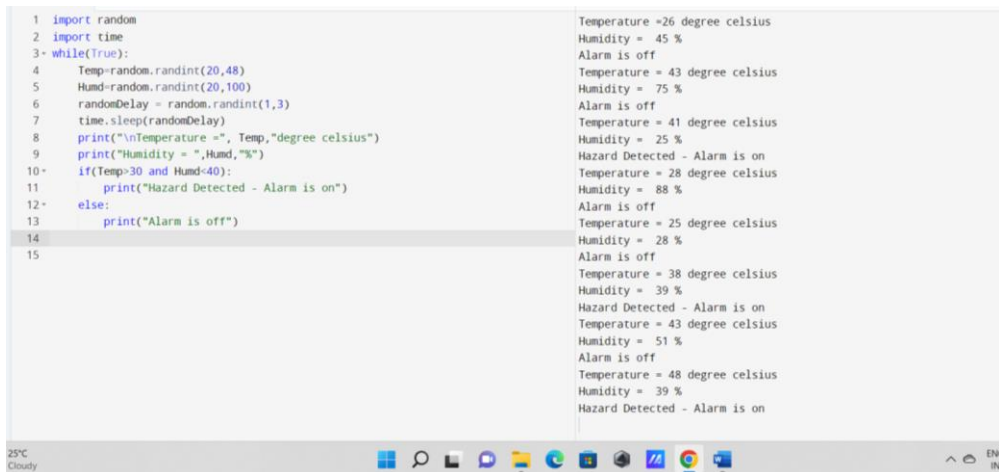
    print("Humidity = ",Humd,"% ")

    if(Temp>30vand Humd<40):

        print("Hazard Detected - Alarm is on")

    else:

        print("Alarm is off")
```



The screenshot shows a Python script being executed in a terminal window. The script imports the random and time modules and enters a while loop. Inside the loop, it generates random temperature and humidity values, sleeps for a random delay, and prints them. It then checks if the temperature is greater than 30 and humidity is less than 40. If true, it prints "Hazard Detected - Alarm is on"; otherwise, it prints "Alarm is off". The output shows several iterations of these values and status messages.

```
1 import random
2 import time
3 while(True):
4     Temp=random.randint(20,48)
5     Humd=random.randint(20,100)
6     randomDelay = random.randint(1,3)
7     time.sleep(randomDelay)
8     print("\nTemperature =", Temp,"degree celsius")
9     print("Humidity = ",Humd,"% ")
10    if(Temp>30 and Humd<40):
11        print("Hazard Detected - Alarm is on")
12    else:
13        print("Alarm is off")
14
15
```

Temperature =26 degree celsius
Humidity = 45 %
Alarm is off
Temperature = 43 degree celsius
Humidity = 75 %
Alarm is off
Temperature = 41 degree celsius
Humidity = 25 %
Hazard Detected - Alarm is on
Temperature = 28 degree celsius
Humidity = 88 %
Alarm is off
Temperature = 25 degree celsius
Humidity = 28 %
Alarm is off
Temperature = 38 degree celsius
Humidity = 39 %
Hazard Detected - Alarm is on
Temperature = 43 degree celsius
Humidity = 51 %
Alarm is off
Temperature = 48 degree celsius
Humidity = 39 %
Hazard Detected - Alarm is on