

## ASSIGNMENT 2

### PYTHON PROGRAMMING

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#### Question1:

Build a python code, Assume you get Temperature and Humidity value(generated with random function to a variable) and write a condition to continuously detect alarm in case of High Temperature.

#### Program Code:

```
import random
import time
while True:
    Humidity=random.randint(1,100)
    print(Humidity)
    temp=random.randint(1,100)
    print(temp)
```

```
if temp>50:
```

```
    print("Temperature is high")
```

```
    print("alarm")
```

```
    time.sleep(2)
```

```
else:
```

```
    print("Temperature is normal")
```

```
    time.sleep(2)
```

```
if Humidity>80:
```

```
    print("Humidity is high")
```

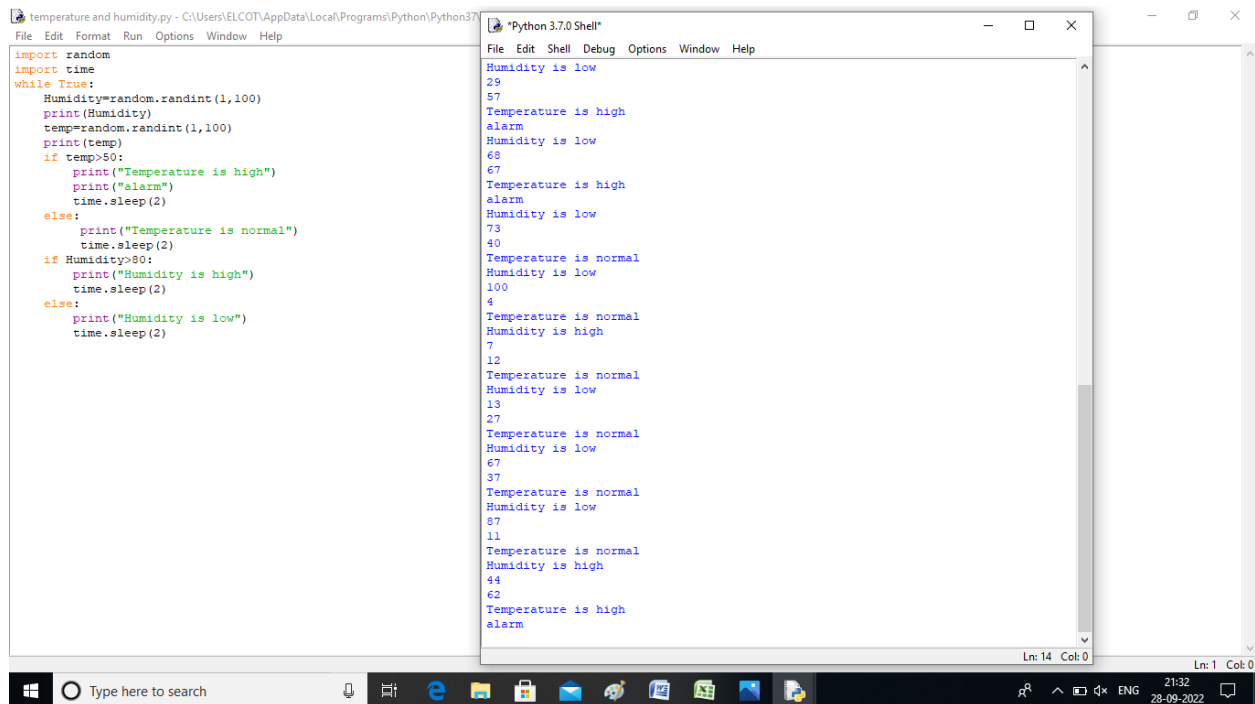
```
    time.sleep(2)
```

```
else:
```

```
    print("Humidity is low")
```

```
    time.sleep(2)
```

## Output:



The screenshot displays a Windows desktop environment. On the left, a text editor window titled 'temperature and humidity.py' shows a Python script. The script imports 'random' and 'time', then enters a 'while True' loop. Inside the loop, it generates random values for 'Humidity' and 'temp', prints them, and uses conditional logic to print status messages like 'Temperature is high', 'alarm', 'Temperature is normal', and 'Humidity is low', with 'time.sleep(2)' calls. On the right, a 'Python 3.7.0 Shell' window shows the output of the script, displaying the printed values and status messages in a monospaced font. The Windows taskbar at the bottom includes the Start button, a search bar, and several application icons. The system tray on the right shows the date and time as 21:32 on 28-09-2022.

```
temperature and humidity.py - C:\Users\ELCOT\AppData\Local\Programs\Python\Python37\
File Edit Format Run Options Window Help
import random
import time
while True:
    Humidity=random.randint(1,100)
    print(Humidity)
    temp=random.randint(1,100)
    print(temp)
    if temp>50:
        print("Temperature is high")
        print("alarm")
        time.sleep(2)
    else:
        print("Temperature is normal")
        time.sleep(2)
    if Humidity>80:
        print("Humidity is high")
        time.sleep(2)
    else:
        print("Humidity is low")
        time.sleep(2)

Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Humidity is low
29
57
Temperature is high
alarm
Humidity is low
68
67
Temperature is high
alarm
Humidity is low
73
40
Temperature is normal
Humidity is low
100
4
Temperature is normal
Humidity is high
7
12
Temperature is normal
Humidity is low
13
27
Temperature is normal
Humidity is low
67
37
Temperature is normal
Humidity is low
87
11
Temperature is normal
Humidity is high
44
62
Temperature is high
alarm
Ln: 14 Col: 0
Ln: 1 Col: 0
```