

ASSIGNMENT-2

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QUESTION:

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.

PROGRAM:

```
import random
while(True):
    temp=random.randint(10,99)
    humid=random.randint(10,99)
    print("current temperature:",temp)
    print("current humidity:",humid,"% ")
    temp_ref=25
    humid_ref=59
    if temp>temp_ref and humid<humid_ref:
        print("Sound alarm")
    else:
        print("Sound off")
    break
```

SCHEMATIC OUTPUT:

The image shows a screenshot of a Python IDE (IDLE Shell 3.10.7) running a script named 'Temp and Humidity.py'. The script is located at 'C:/Users/ATCHY/AppData/Local/Programs/Python/Python310/Temp and Humidity.py'. The script's logic is as follows:

```
import random

while(True):
    temp=random.randint(10,99)
    humid=random.randint(10,99)
    print("current temperature:",temp)
    print("current humidity:",humid,"%")
    temp_ref=25
    humid_ref=59
    if temp>temp_ref and humid>humid_ref:
        print("Sound alarm")
    else:
        print("Sound off")
    break
```

The output of the script, displayed in the IDLE Shell, is:

```
>>>
= RESTART: C:/Users/ATCHY/AppData/Local/Programs/Python/Python310/Temp and Humidity.py
current temperature: 88
current humidity: 39 %
Sound alarm
>>>
```

The IDE window also shows the file path and the Python version (3.10.7). The taskbar at the bottom indicates the system is at 83°F, Cloudy, and the time is 10:19 on 11-10-2022.