

ASSIGNMENT-2

BUILD A PYTHON CODE, ASSUME U GET TEMPERATURE AND HUMIDITY VALUES AND WRITE A CONDITION TO CONTINUOUSLY DETECT ALARM IN CASE OF HIGH TEMPERATURE

PROGRAM:

```
#from machine import Pin

import random
from time

import sleep

#btn=Pin(4,Pin.IN) while
True:

temp = random.randint(1,100)

print("current temp=",temp) humid
= random.randint(1,100)

print("current humid=",humid)

if(temp>=50 and humid<35):

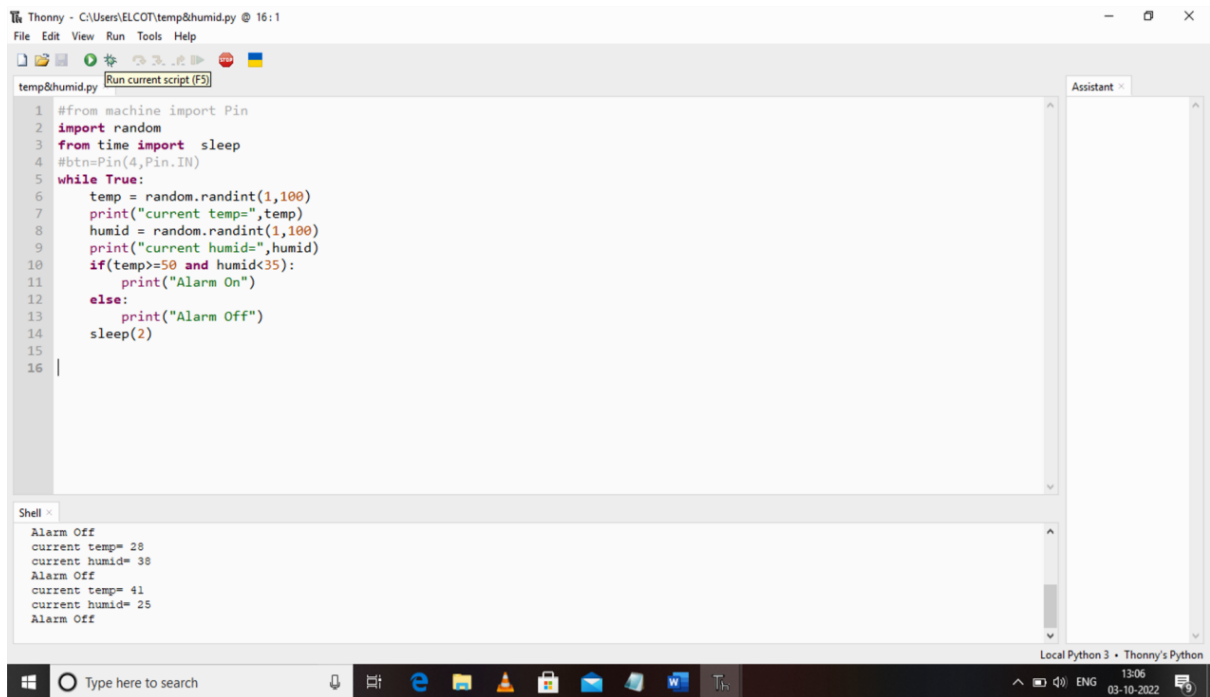
print("Alarm On")

else:

print("Alarm Off")

sleep(2)
```

OUTPUT :



The screenshot shows the Thonny Python IDE interface. The main editor window displays a Python script named `temp&humid.py`. The script imports `Pin` from the `machine` module, `random` from the `random` module, and `sleep` from the `time` module. It initializes a button `btn` as `Pin(4, Pin.IN)` and enters a `while True:` loop. Inside the loop, it generates random temperature and humidity values, prints them, and checks if the temperature is greater than or equal to 50 and the humidity is less than 35. If this condition is met, it prints "Alarm On"; otherwise, it prints "Alarm Off". It then sleeps for 2 seconds before repeating the loop.

```
1 #from machine import Pin
2 import random
3 from time import sleep
4 #btn=Pin(4,Pin.IN)
5 while True:
6     temp = random.randint(1,100)
7     print("current temp=",temp)
8     humid = random.randint(1,100)
9     print("current humid=",humid)
10    if(temp>=50 and humid<35):
11        print("Alarm On")
12    else:
13        print("Alarm Off")
14    sleep(2)
15
16
```

The Shell window at the bottom shows the output of the script, which is a series of "Alarm Off" messages followed by the current temperature and humidity values. The output is as follows:

```
Alarm Off
current temp= 28
current humid= 38
Alarm Off
current temp= 41
current humid= 25
Alarm Off
```

The Assistant window on the right is empty. The status bar at the bottom indicates the Python version is 3.9.0 and the interpreter is Thonny's Python.