

NANDHA ENGINEERING COLLEGE

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

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ASSIGNMENT-2

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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
import time
import sleep

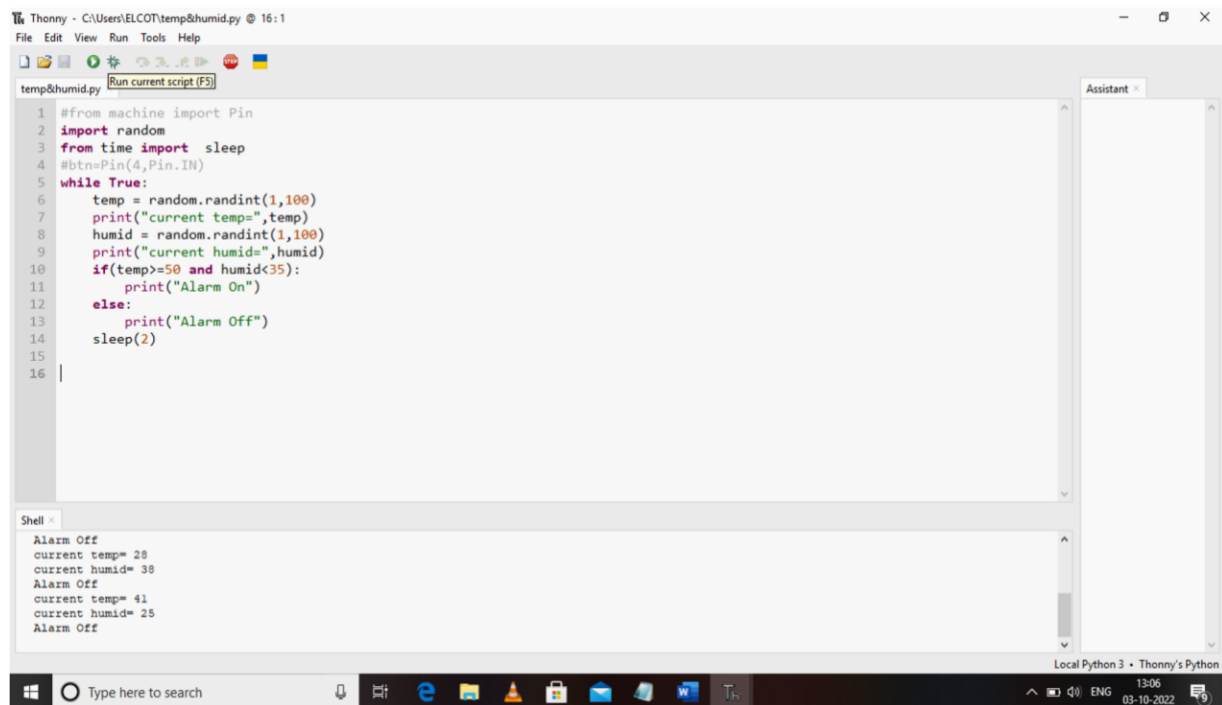
#btn=Pin(4,Pin.IN) while True:

    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 pin (`btn=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" and sleeps for 2 seconds.

```
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
```

Below the editor, the Shell window shows the output of the script's execution:

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

The bottom of the image shows the Windows taskbar with the search bar and various application icons. The system tray indicates the date and time as 03-10-2022, 13:06.