

S.A ENGINEERING COLLEGE

AVADI

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

IBM NALAIYA THIRAN

ASSIGNMENT-2

TEAM LEADER: NIRMAL G

TEAM MEMBER: SATHISHKANNA S

DHIVAKAR R

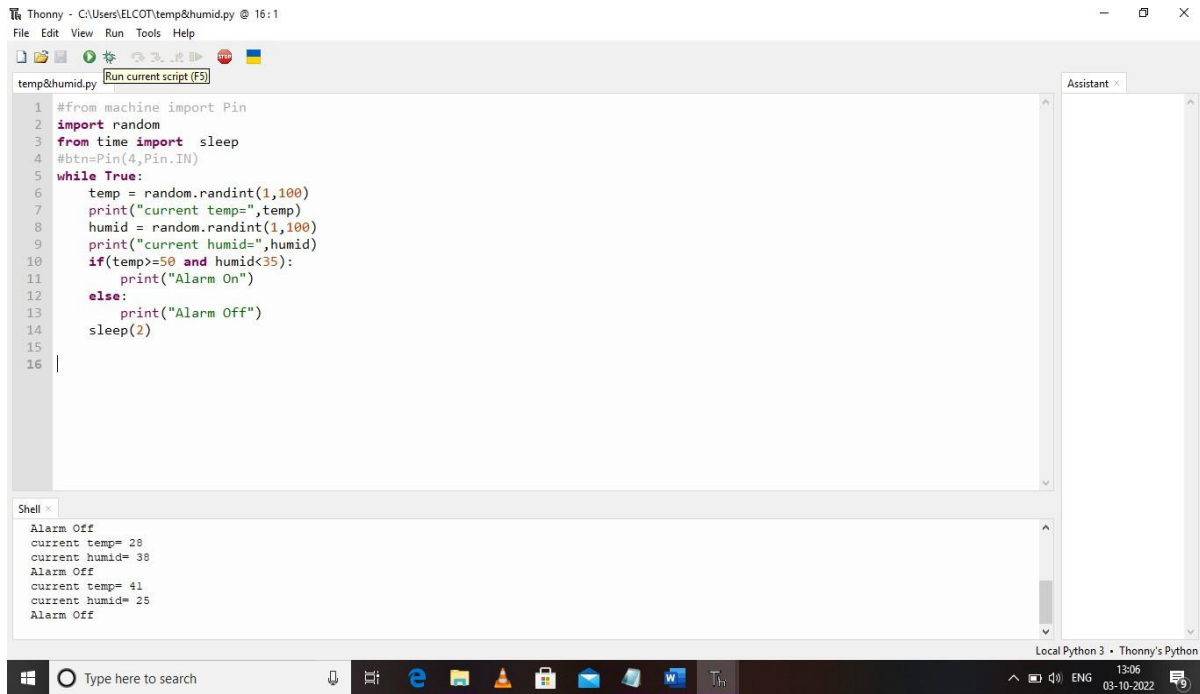
ERUGU HEMANTH KUMAR

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 then initializes a pin 'btn' as 'Pin(4, Pin.IN)'. A 'while True' loop 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
```

The Shell window at the bottom shows the output of the script, displaying alternating 'Alarm Off' messages and current temperature/humidity readings.

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

The status bar at the bottom indicates 'Local Python 3 - Thonny's Python' and shows the system clock as 13:06 on 03-10-2022.