

Assignment-1

PythonProgramming

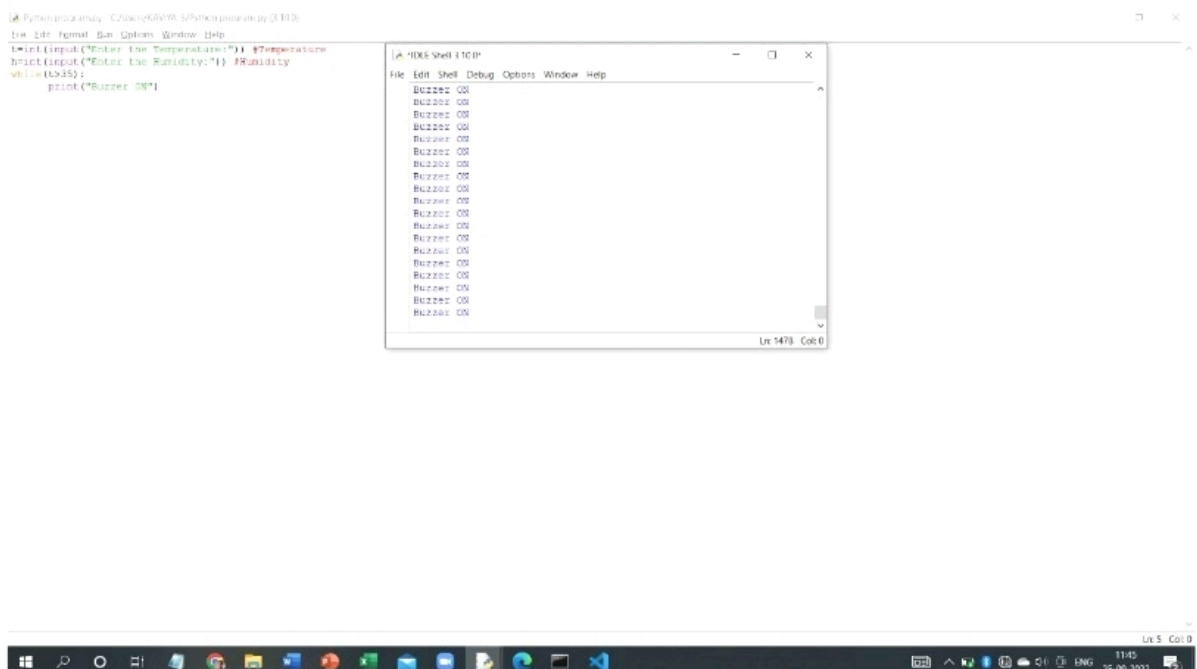
AssignmentDate	26September2022
StudentName	Ms. Kavipriya R
StudentRollNumber	621319106039
MaximumMarks	2 Marks

Question-1:

Build a python code, Assume you get temperature and humidity values (generated with randomfunction to a variable) and write a condition to continuously detect alarm in case of hightemperature.

Program:

```
t=int(input("Enter the Temperature:")) #Temperatureh=int(input("Enter the Humidity:")) #Humiditywhile(t>35):  
    print("BuzzerON")
```



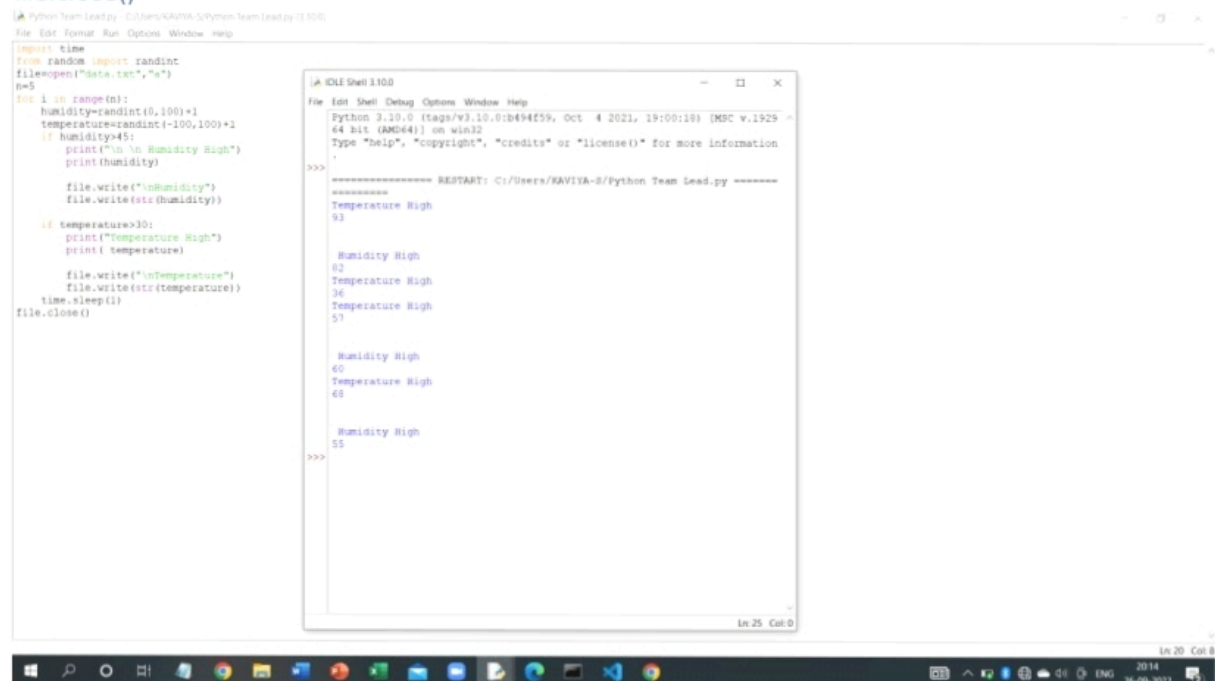
Program:

```
import time
from random import randint
file=open("data.txt","a")
n=5
for i in range(n):
    humidity=randint(0,100)+1
    temperature=randint(-100,100)+1
    if humidity>45:
        print("\n \n Humidity High")
        print(humidity)

        file.write("\nHumidity")
        file.write(str(humidity))

    if temperature>30:
        print("Temperature High")
        print( temperature)

        file.write("\nTemperature")
        file.write(str(temperature))
    time.sleep(1)
file.close()
```



The screenshot shows a Python IDE with a script on the left and its output on the right. The script generates random humidity and temperature values. If humidity is greater than 45, it prints 'Humidity High' and the value. If temperature is greater than 30, it prints 'Temperature High' and the value. The script writes these values to a file named 'data.txt' and sleeps for 1 second between iterations.

Script Code:

```
import time
from random import randint
file=open("data.txt","a")
n=5
for i in range(n):
    humidity=randint(0,100)+1
    temperature=randint(-100,100)+1
    if humidity>45:
        print("\n \n Humidity High")
        print(humidity)

        file.write("\nHumidity")
        file.write(str(humidity))

    if temperature>30:
        print("Temperature High")
        print( temperature)

        file.write("\nTemperature")
        file.write(str(temperature))
    time.sleep(1)
file.close()
```

Output:

```
Python 3.10.0 (tags/v3.10.0:b494f59, Oct 4 2021, 19:00:18) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information
>>>
===== RESTART: C:/Users/KAVIYA-S/Python Team Lead.py =====
=====
Temperature High
93

Humidity High
82
Temperature High
36
Temperature High
57

Humidity High
60
Temperature High
68

Humidity High
55
>>>
```