

Date	22 September 2022
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Student Register Number/Roll Number	211419106034/2019PECEC115
Maximum Marks	2 Marks

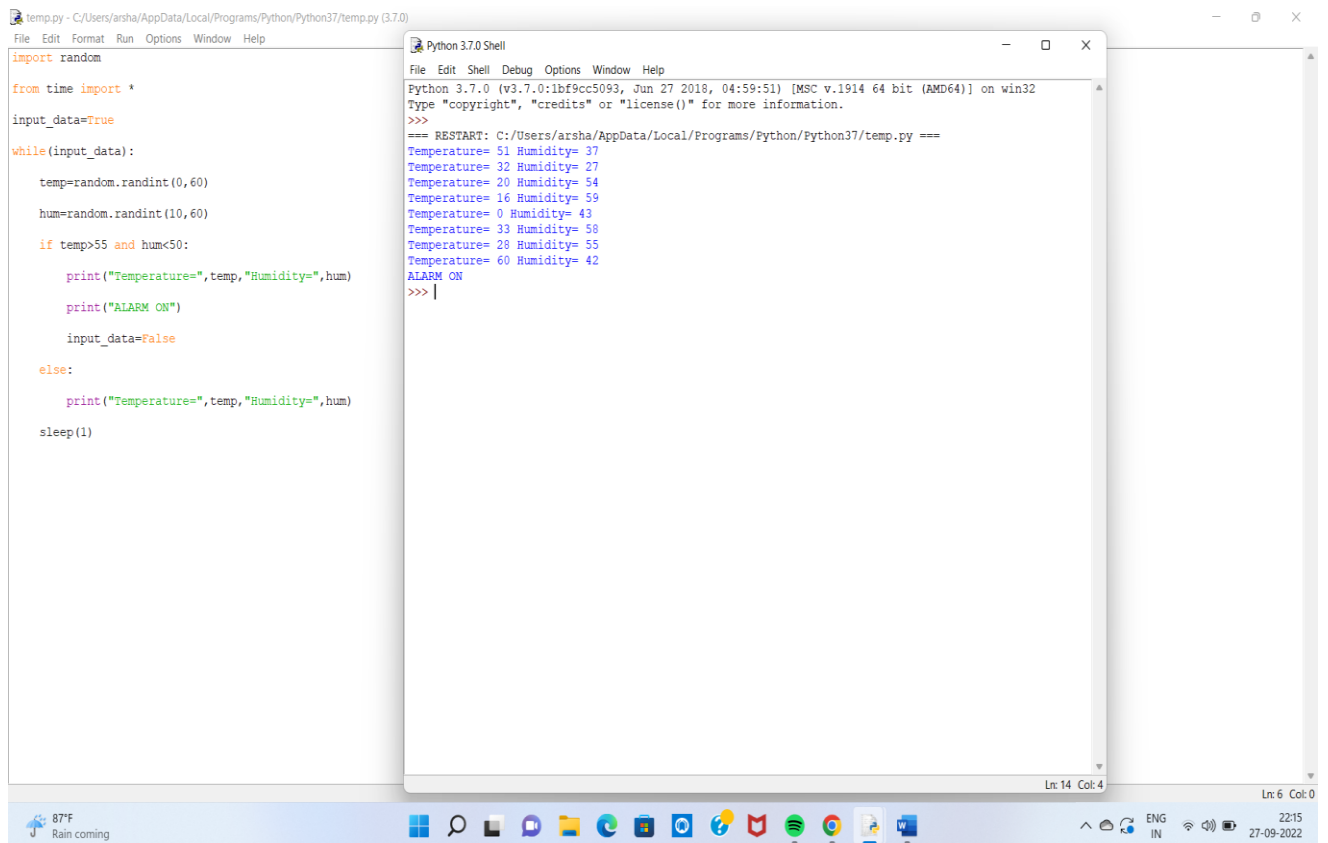
QUESTION-1:

Build a Python code, Assume u 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

SOLUTION:

```
import random
from time import *
input_data=True
while(input_data):
    temp=random.randint(0,60)
    hum=random.randint(10,60)
    if temp>55 and hum<50:
        print("Temperature=",temp,"Humidity=",hum)
        print("ALARM ON")
        input_data=False
    else:
        print("Temperature=",temp,"Humidity=",hum)
    sleep(1)
```

Output:



The image shows a Windows desktop environment with two windows open. The left window is a text editor showing a Python script named `temp.py`. The script imports the `random` module and uses a `while` loop to generate random temperature and humidity values. It includes an `if` statement that prints "ALARM ON" when the temperature is greater than 55 and humidity is less than 50. The right window is a Python 3.7.0 Shell, which displays the output of the script. The output shows a series of temperature and humidity pairs, followed by "ALARM ON" when the conditions are met.

```
temp.py - C:/Users/arsha/AppData/Local/Programs/Python/Python37/temp.py (3.7.0)
File Edit Format Run Options Window Help

import random

from time import *

input_data=True

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    else:

        print("Temperature=",temp,"Humidity=",hum)

    sleep(1)
```

```
Python 3.7.0 Shell
File Edit Shell Debug Options Window Help

Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: C:/Users/arsha/AppData/Local/Programs/Python/Python37/temp.py ===
Temperature= 51 Humidity= 37
Temperature= 32 Humidity= 27
Temperature= 20 Humidity= 54
Temperature= 16 Humidity= 59
Temperature= 0 Humidity= 43
Temperature= 33 Humidity= 58
Temperature= 28 Humidity= 55
Temperature= 60 Humidity= 42
ALARM ON
>>> |
```

Windows taskbar at the bottom shows the date and time as 22:15 on 27-09-2022, and the system language is set to ENG IN.