

IBM ASSIGNMENT – 2

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ASSIGNMENT QUESTION:

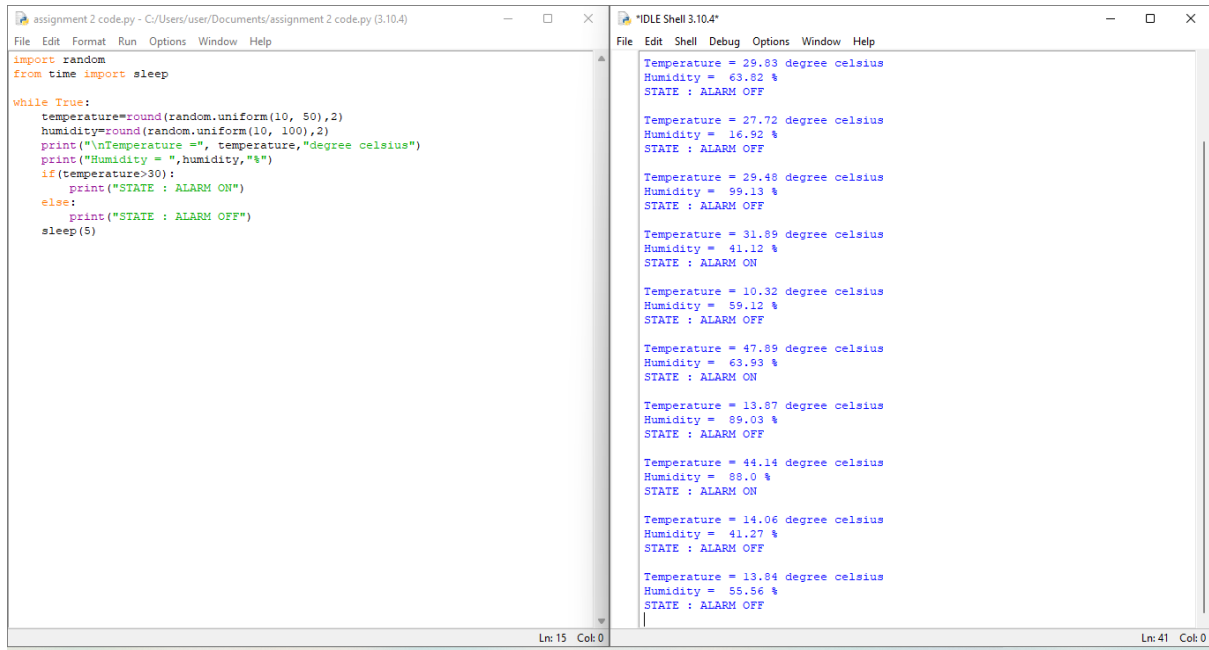
Build a python code, assume you get temperature and humidity values (generated with random function to a variable) and write a condition to continuously detect alarm in case of high temperature.

PYTHON CODE:

```
import random
from time import sleep

while True:
    temperature=round(random.uniform(10, 50),2)
    humidity=round(random.uniform(10, 100),2)
    print("\nTemperature =", temperature,"degree celsius")
    print("Humidity = ",humidity,"%")
    if(temperature>32):
        print("STATE : ALARM ON")
    else:
        print("STATE : ALARM OFF")
    sleep(5)
```

OUTPUT:



The image shows a screenshot of an IDE with two windows. The left window, titled 'assignment 2 code.py - C:/Users/user/Documents/assignment 2 code.py (3.10.4)', contains the following Python code:

```
import random
from time import sleep

while True:
    temperature=round(random.uniform(10, 50),2)
    humidity=round(random.uniform(10, 100),2)
    print("\nTemperature =", temperature,"degree celsius")
    print("Humidity = ",humidity,"%")
    if(temperature>30):
        print("STATE : ALARM ON")
    else:
        print("STATE : ALARM OFF")
    sleep(5)
```

The right window, titled 'IDLE Shell 3.10.4', displays the output of the script. It shows a series of temperature and humidity readings, each followed by a state message. The state is 'ALARM ON' when the temperature is greater than 30 degrees Celsius and 'ALARM OFF' otherwise. The output is as follows:

```
Temperature = 29.83 degree celsius
Humidity = 63.82 %
STATE : ALARM OFF

Temperature = 27.72 degree celsius
Humidity = 16.92 %
STATE : ALARM OFF

Temperature = 29.48 degree celsius
Humidity = 59.13 %
STATE : ALARM OFF

Temperature = 31.89 degree celsius
Humidity = 41.12 %
STATE : ALARM ON

Temperature = 10.32 degree celsius
Humidity = 59.12 %
STATE : ALARM OFF

Temperature = 47.89 degree celsius
Humidity = 63.93 %
STATE : ALARM ON

Temperature = 13.87 degree celsius
Humidity = 89.03 %
STATE : ALARM OFF

Temperature = 44.14 degree celsius
Humidity = 88.0 %
STATE : ALARM ON

Temperature = 14.06 degree celsius
Humidity = 41.27 %
STATE : ALARM OFF

Temperature = 13.84 degree celsius
Humidity = 55.56 %
STATE : ALARM OFF
```

The status bar at the bottom of the left window shows 'Ln: 15 Col: 0', and the status bar at the bottom of the right window shows 'Ln: 41 Col: 0'.