

**SMART FARMER IOT ENABLED SMART  
FARMING APPLICATION**

**ASSIGNMENT-02**

SUBMITTED BY

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**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.**

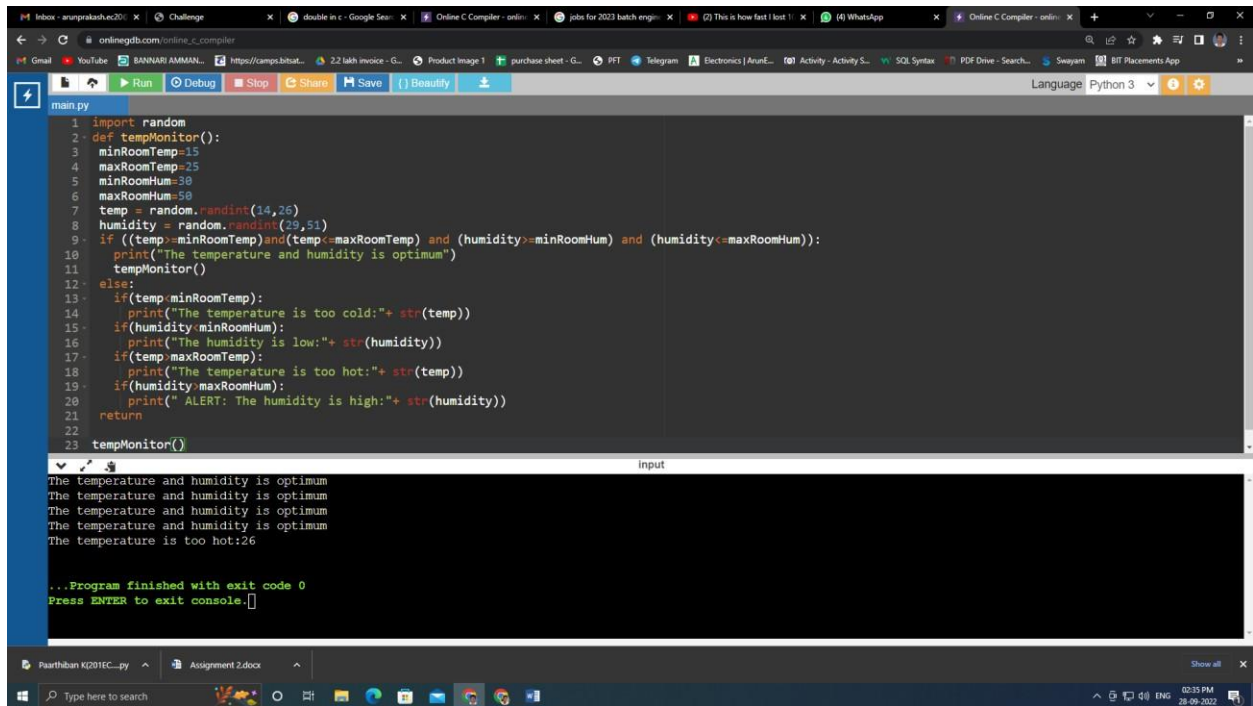
**Python code:**

```
import random
def tempMonitor():
    minRoomTemp=15
    maxRoomTemp=25
    minRoomHum=30
    maxRoomHum=50
```

```
temp = random.randint(14,26)
humidity = random.randint(29,51)
if ((temp>=minRoomTemp)and(temp<=maxRoomTemp) and
(humidity>=minRoomHum) and (humidity<=maxRoomHum)):
    print("The temperature and humidity is optimum")
    tempMonitor()
else:
    if(temp<minRoomTemp):
        print("The temperature is too cold:"+ str(temp))
    if(humidity<minRoomHum):
        print("The humidity is low:"+ str(humidity))
    if(temp>maxRoomTemp):
        print("The temperature is too hot:"+ str(temp))
    if(humidity>maxRoomHum):
        print(" ALERT: The humidity is high:"+ str(humidity))
    return

tempMonitor()
```

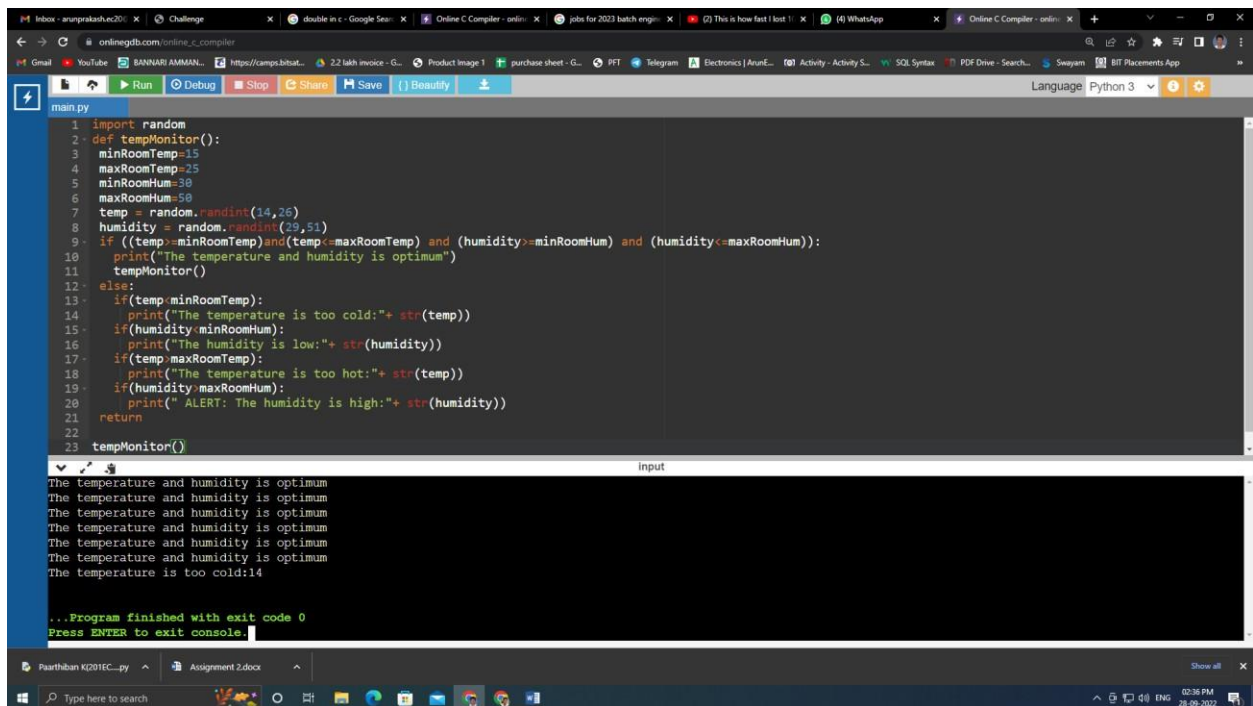
## IDLE OUTPUT:



```
1 import random
2 def tempMonitor():
3     minRoomTemp=15
4     maxRoomTemp=25
5     minRoomHum=30
6     maxRoomHum=50
7     temp = random.randint(14,26)
8     humidity = random.randint(20,51)
9     if ((temp>minRoomTemp)and(temp<=maxRoomTemp) and (humidity>=minRoomHum) and (humidity<=maxRoomHum)):
10        print("The temperature and humidity is optimum")
11        tempMonitor()
12    else:
13        if(temp<minRoomTemp):
14            print("The temperature is too cold:"+ str(temp))
15        if(humidity<minRoomHum):
16            print("The humidity is low:"+ str(humidity))
17        if(temp>maxRoomTemp):
18            print("The temperature is too hot:"+ str(temp))
19        if(humidity>maxRoomHum):
20            print(" ALERT: The humidity is high:"+ str(humidity))
21    return
22
23 tempMonitor()
```

The temperature and humidity is optimum  
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The temperature and humidity is optimum  
The temperature is too hot:26

...Program finished with exit code 0  
Press ENTER to exit console.



```
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19        if(humidity>maxRoomHum):
20            print(" ALERT: The humidity is high:"+ str(humidity))
21    return
22
23 tempMonitor()
```

The temperature and humidity is optimum  
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The temperature and humidity is optimum  
The temperature is too cold:14

...Program finished with exit code 0  
Press ENTER to exit console.

```
main.py
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16            print("The humidity is low:"+ str(humidity))
17        if(temp>maxRoomTemp):
18            print("The temperature is too hot:"+ str(temp))
19        if(humidity>maxRoomHum):
20            print(" ALERT: The humidity is high:"+ str(humidity))
21        return
22
23 tempMonitor()
```

The temperature and humidity is optimum  
The humidity is low:29

...Program finished with exit code 0  
Press ENTER to exit console.

```
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18            print("The temperature is too hot:"+ str(temp))
19        if(humidity>maxRoomHum):
20            print(" ALERT: The humidity is high:"+ str(humidity))
21        return
22
23 tempMonitor()
```

The temperature and humidity is optimum  
The temperature and humidity is optimum  
The temperature and humidity is optimum  
The temperature and humidity is optimum  
ALERT: The humidity is high:51

...Program finished with exit code 0  
Press ENTER to exit console.