SMART FARMER IOT ENABLED SMART FARMING APPLICATION

ASSIGNMENT-02

SUBMITTED BY

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ELECTRONICS AND

COMMUNICATION ENGINEERING

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.

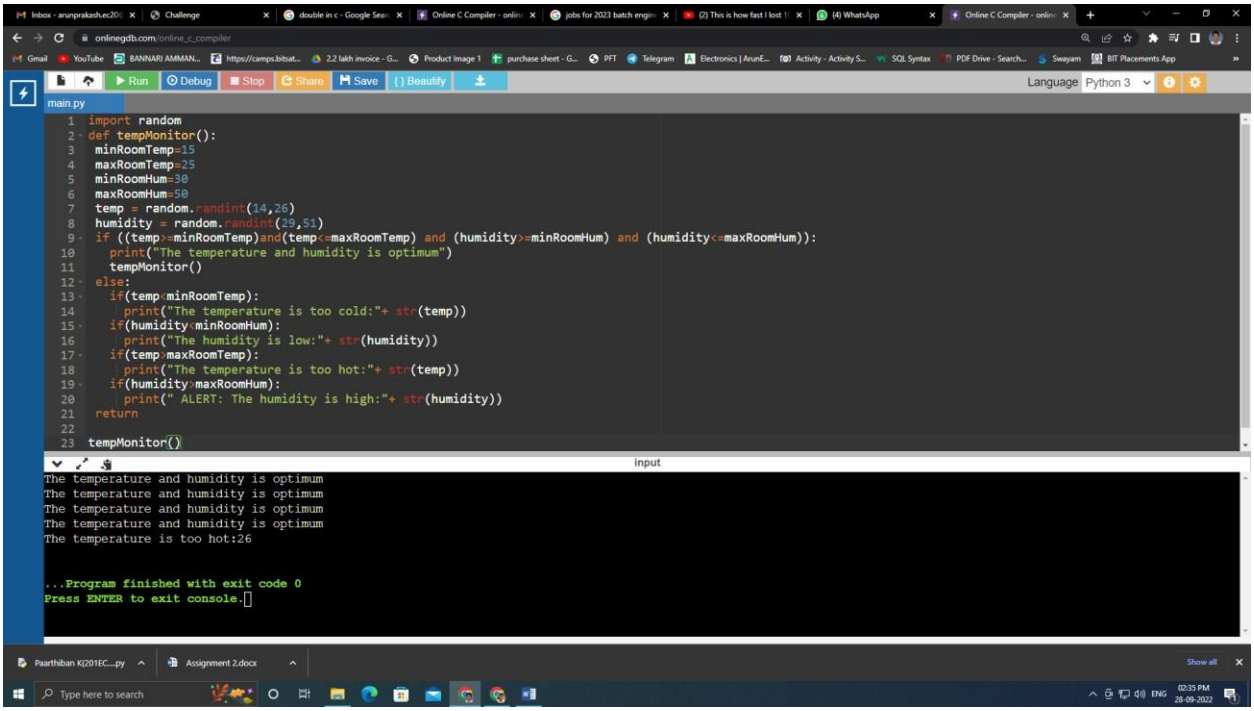
Python code:

```
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:


onlinegdb.com/online_c_compiler
Run
Debug
Stop
Share
Save
{ } Beautify
Language
Python 3
main.py
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if(temp>maxRoomTemp):
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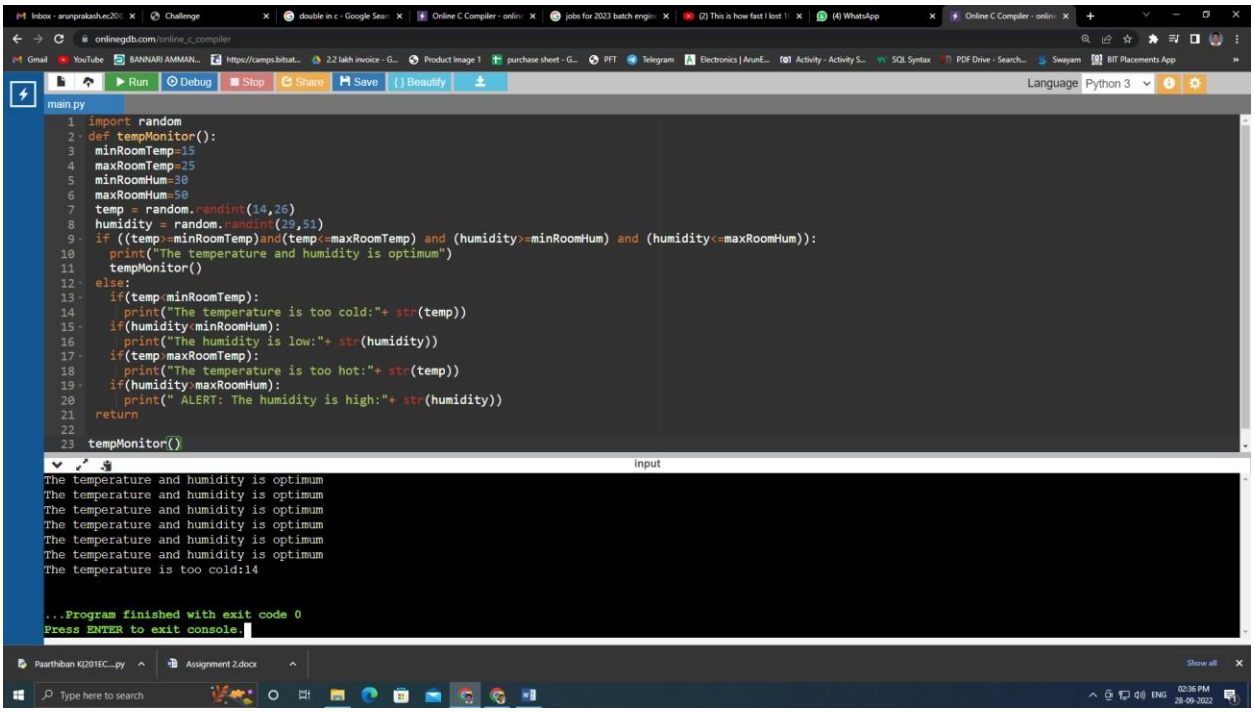
if(humidity>maxRoomHum):
print(" ALERT: The humidity is high:"+ str(humidity))
return
tempMonitor()
input
The temperature and humidity is optimum
The temperature and humidity is optimum
The temperature and humidity is optimum
The temperature and humidity is optimum
The temperature is too hot:26
...Program finished with exit code 0
Press ENTER to exit console.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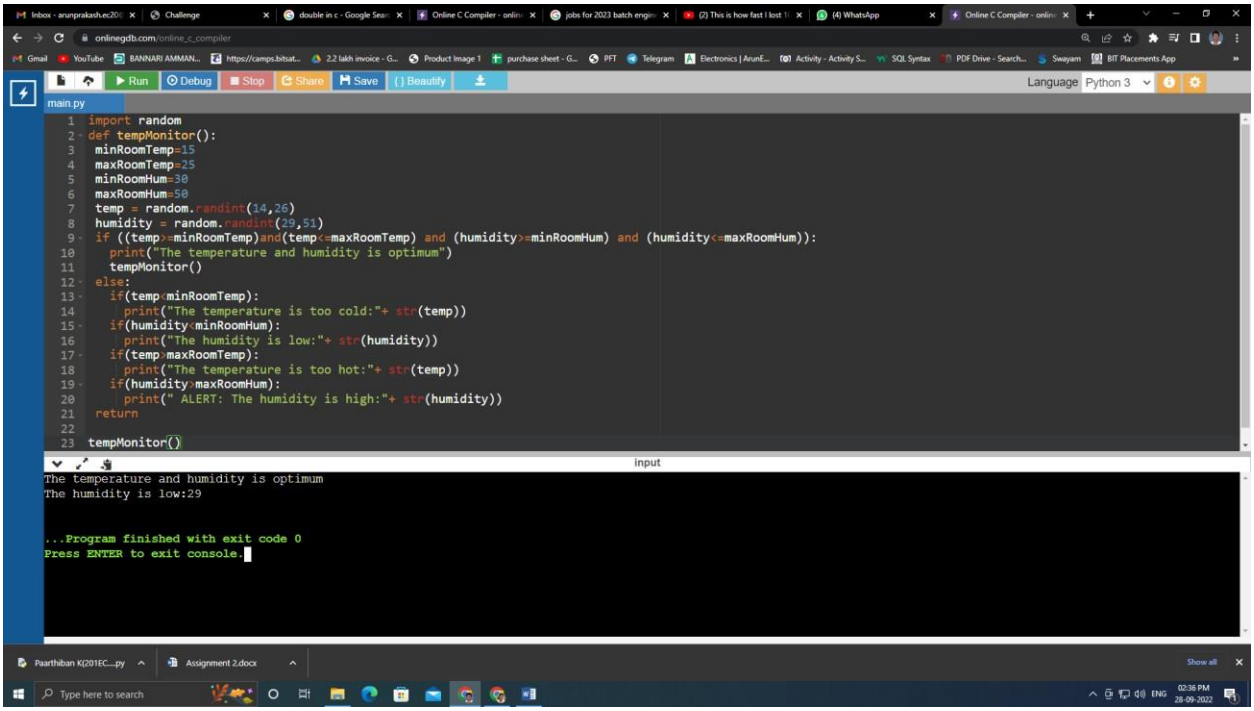
if(humidity>maxRoomHum):
print(" ALERT: The humidity is high:"+ str(humidity))
return
tempMonitor()
input
The temperature and humidity is optimum
The temperature and humidity is optimum
The temperature and humidity is optimum
The temperature and humidity is optimum
The temperature and humidity is optimum
The temperature and humidity is optimum
The temperature is too cold:14
...Program finished with exit code 0
Press ENTER to exit console.



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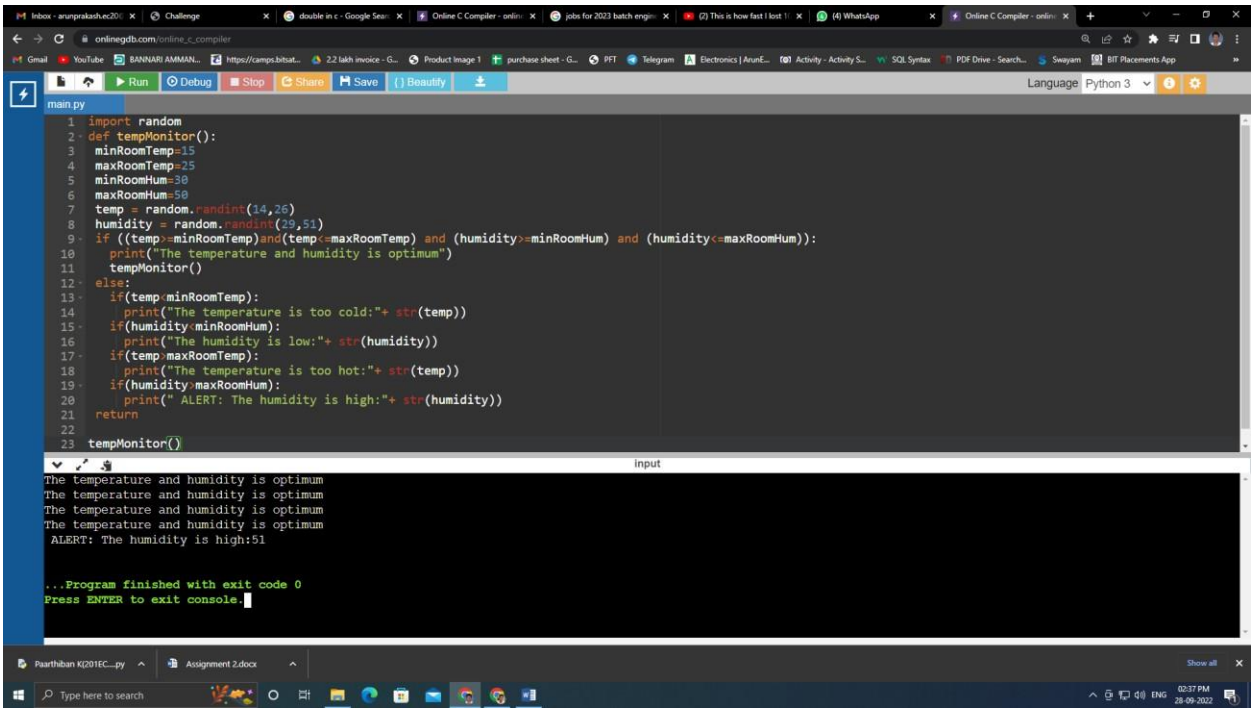
   if(temp>maxRoomTemp):
     print("The temperature is too hot:"+ str(temp))
   if(humidity>maxRoomHum):
     print(" ALERT: The humidity is high:"+ str(humidity))
 return

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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 return

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.
```