SMART FARMER IOT ENABLED SMART FARMING APPLICATION

ASSIGNMENT-02

SUBMITTED BY

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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):</pre>
  print("The temperature is too cold:"+ str(temp))
 if(humidity<minRoomHum):</pre>
  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:

```
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                                                                                               import random
def tempMonitor():
minRoomTemp=15
maxRoomHem=25
minRoomHum=30
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:"+ st (temp))</pre>
                                                                                                        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))
                                                                  22
23 tempMonitor()
                                               The temperature and humidity is optimum
The temperature as too hot:26
                                                  ...Program finished with exit code 0
Press ENTER to exit console.
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                                                                                               import random

def tempMonitor():
    minRoom!emp.25
    maxRoom!emp.25
    minRoom!um=38
    maxRoom!um=38
    maxRoom!um=38
    temp = random.randint(14,26)
    humidity = random.randint(29,51)
    if ((temp:=minRoom!emp)and(temp<=maxRoom!emp) and (humidity:=minRoom!um) and (humidity<=maxRoom!um)):
        print("The temperature and humidity is optimum")
        tempMonitor()
else:
                                                                                                        else:
   if(temp<minRoomTemp):
        print("The temperature is too cold:"+ st (temp))
   if(humidity<minRoomHum):
        print("The humidity is low:"+ st (humidity))
   if(temp>maxRoomTemp):
        print("The temperature is too hot:"+ str(temp))
   if(humidity>maxRoomHum):
        print(" ALERT: The humidity is high:"+ str(humidity))
        print(" ALERT: The humidity is high:"+ str(humidity))
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23 tempMonitor()
                                                  The temperature and humidity is optimum 
The temperature and bundity is optimum 
The temperature is too cold:14
                                                  ...Program finished with exit code 0
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