ASSIGNMENT 2

Date	24 September 2022
Nmae	Sri Hari Sudhan K
Roll Number	718020L435
Project Name	Project – Smart Farmer-IoT Enabled Smart Farming Application
Maximum Marks	2 Marks

Topic: Assignment on temperature and humidity sensing and alarm automation using 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):

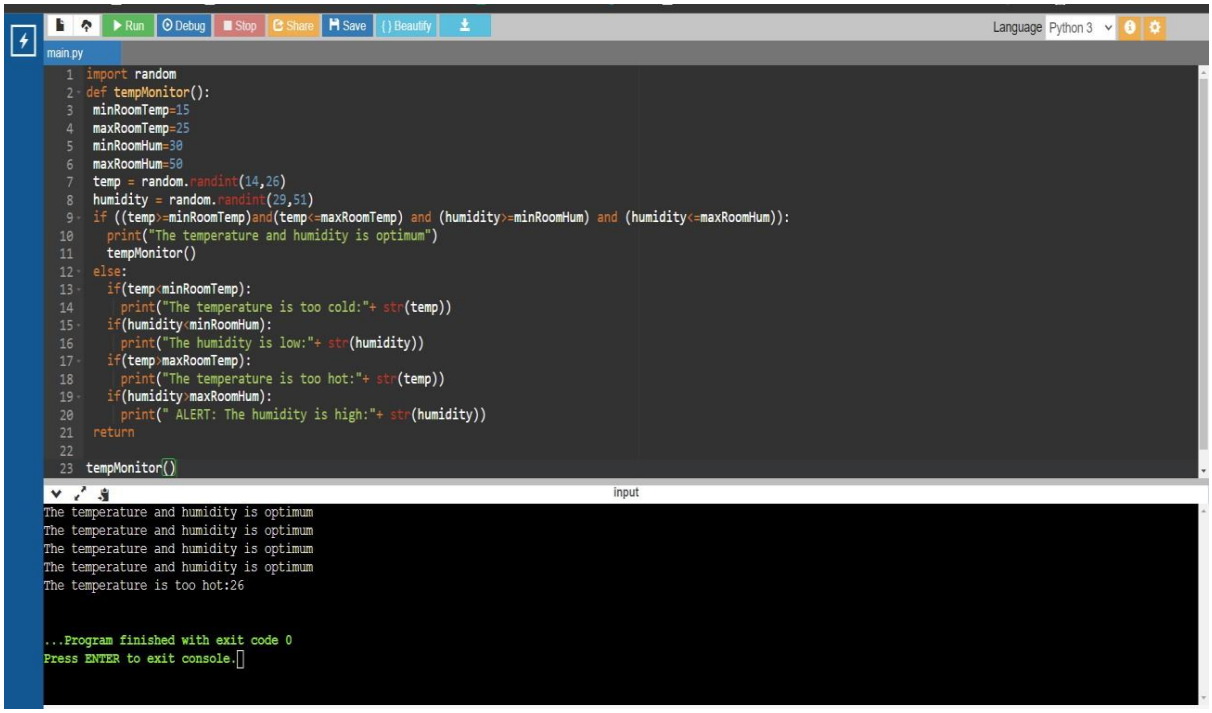
print("The temperature is too cold:"+ str(temp)) if(humidity<minRoomHum):

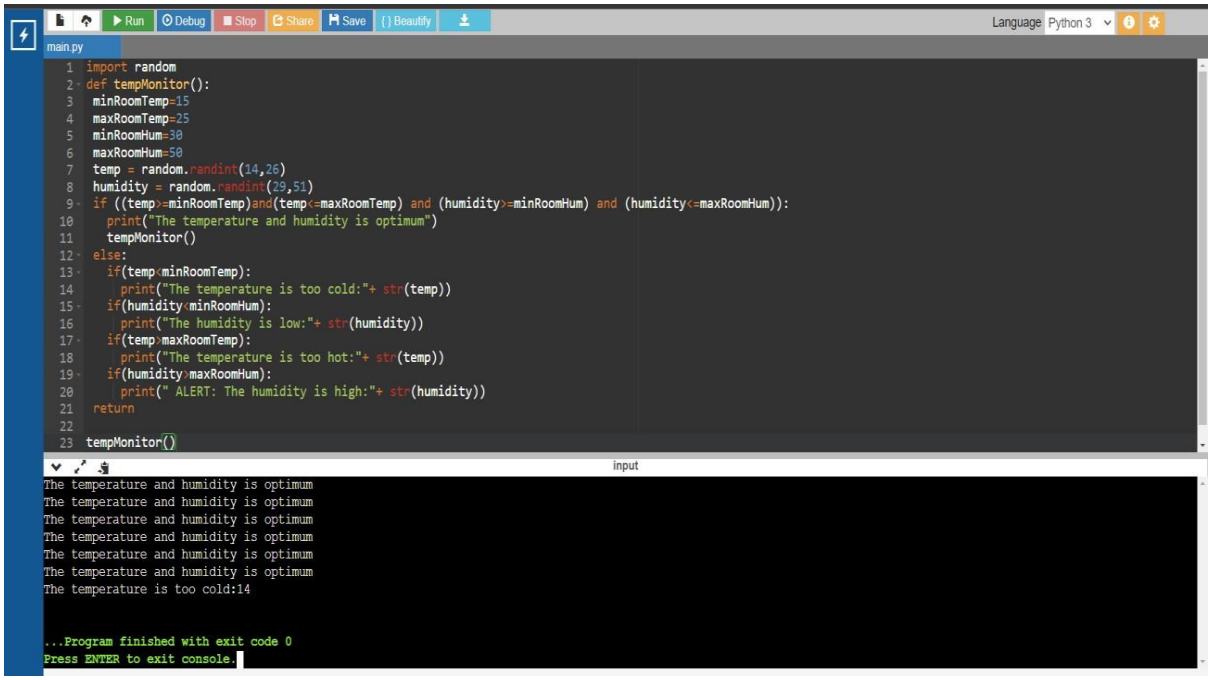
print("The humidity is low:"+ str(humidity)) if(temp>maxRoomTemp):

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

print(" ALERT: The humidity is high:"+ str(humidity)) return tempMonitor()

OUTPUT:



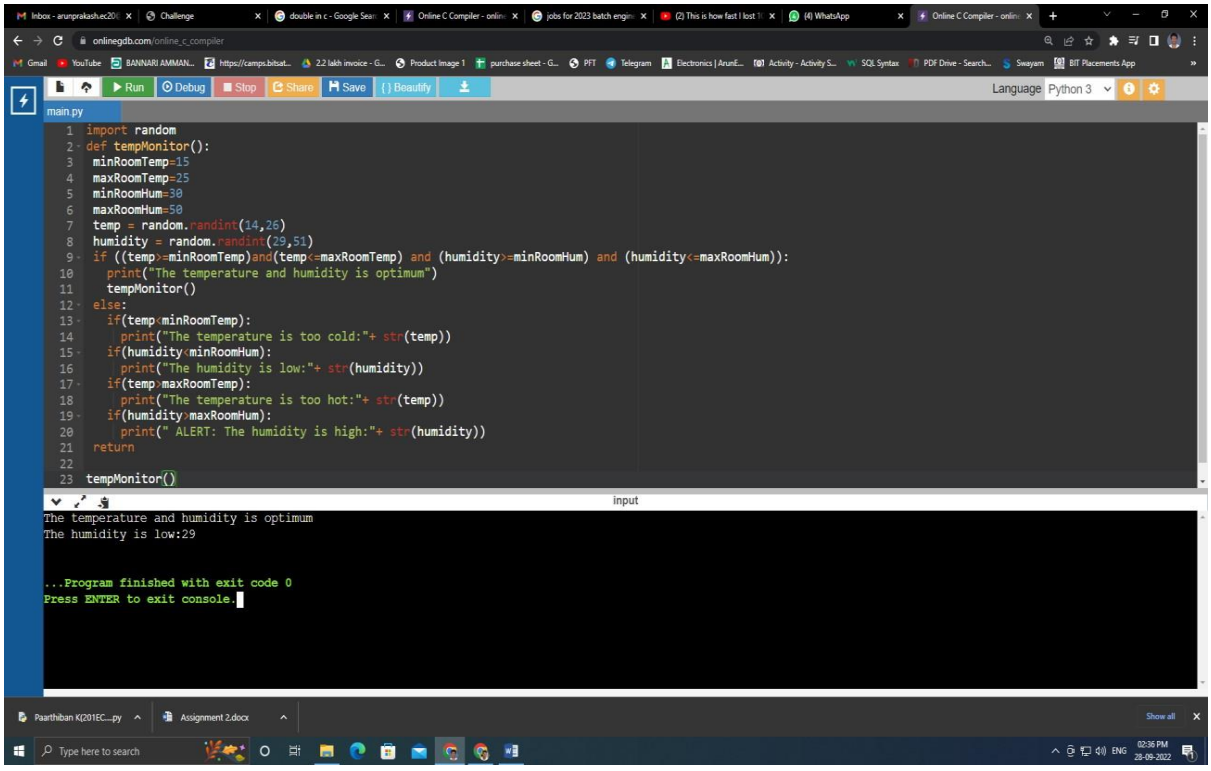


```
import random
def tempMonitor():
 minRoomTemp=15
 maxRoomTemp=25
 minRoomHum=30
 maxRoomHum=50
 temp = random.randint(14,26)
 humidity = random.randint(29,51)
 if ((temp>=minRoomTemp)and(temp<=maxRoomTemp) and (humidity>=minRoomHum) and (humidity<=maxRoomHum)):
   print("The temperature and humidity 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()
```

```
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.
```

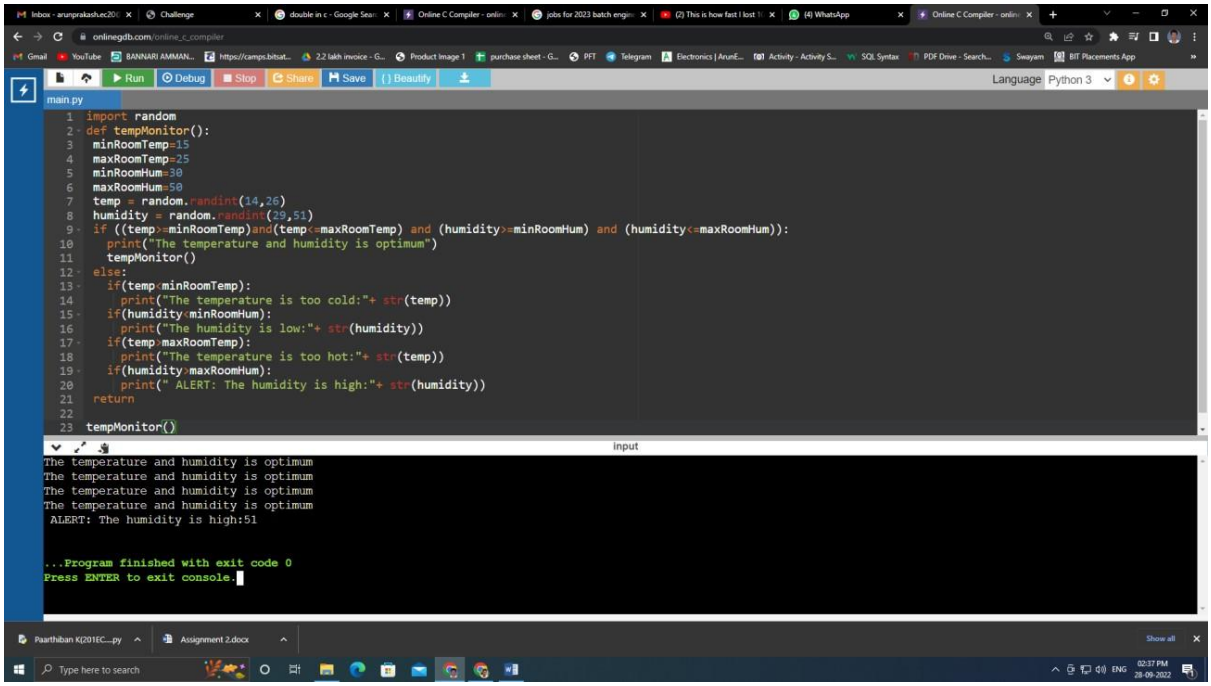


```
import random
def tempMonitor():
 minRoomTemp=15
 maxRoomTemp=25
 minRoomHum=30
 maxRoomHum=50
 temp = random.randint(14,26)
 humidity = random.randint(29,51)
 if ((temp>=minRoomTemp)and(temp<=maxRoomTemp) and (humidity>=minRoomHum) and (humidity<=maxRoomHum)):
   print("The temperature and humidity 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()
```

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


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


main.py
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()
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
ALERT: The humidity is high:51
...Program finished with exit code 0
Press ENTER to exit console.