

ASSIGNMENT

To detect an alarm in case of high temperature continuously

DATE	25 - 09 -2022
TEAM ID	PNT2022MID49676
PROJECT NAME	Gas Leakage Monitoring &Alerting System for Industries

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

Program:

```
import random
```

```
while(True):
```

```
    Temp=random.randint(10,1000)
```

```
    Hum=random.randint(10,1000)if(Temp>100
```

```
and Hum>900):
```

```
        print("High temperature has detected :",Temp,"%","alarm is on")
```

```
elif(Temp==100 and Hum==900):
```

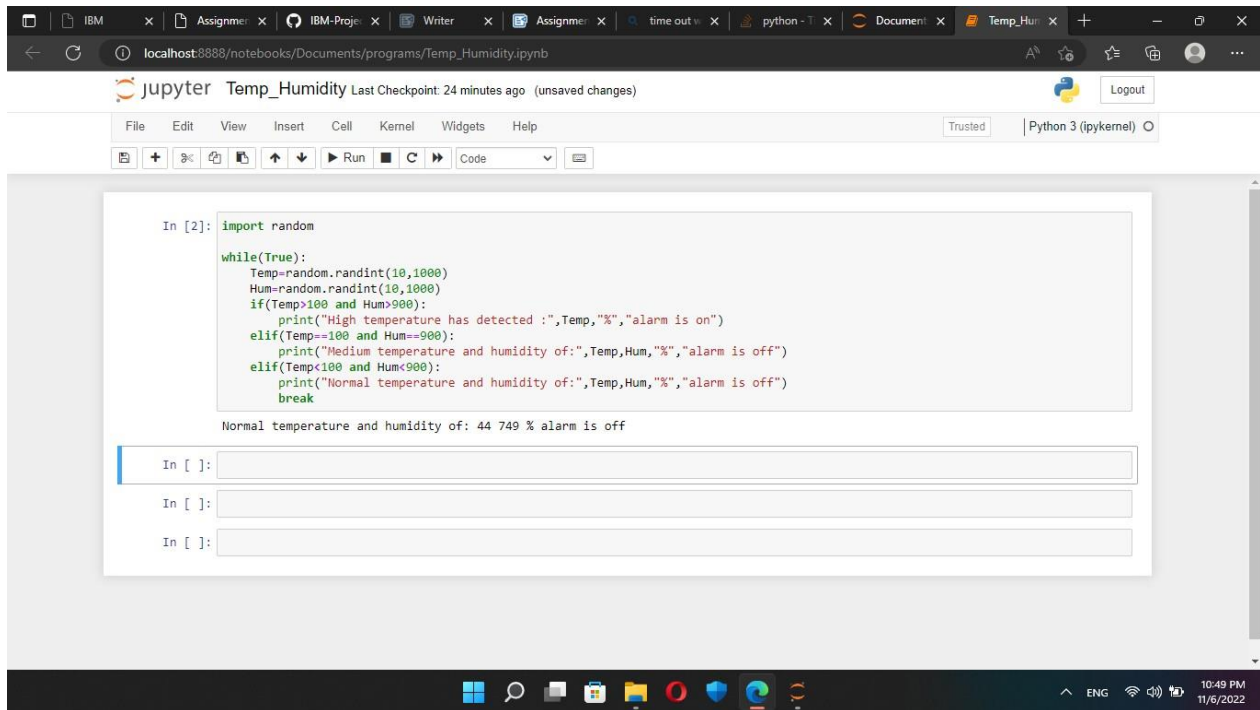
```
        print("Medium temperature and humidity of:",Temp,Hum,"%","alarm is off")
```

```
elif(Temp<100 and Hum<900):
```

```
        print("Normal temperature and humidity of:",Temp,Hum,"%","alarm is off")
```

```
        break
```

OUTPUT:



A screenshot of a Jupyter Notebook interface. The browser address bar shows 'localhost:8888/notebooks/Documents/programs/Temp_Humidity.ipynb'. The notebook title is 'Temp_Humidity' with a 'Last Checkpoint: 24 minutes ago (unsaved changes)' status. The menu bar includes File, Edit, View, Insert, Cell, Kernel, Widgets, and Help. The toolbar shows icons for file operations and a 'Run' button. The code cell 'In [2]:' contains a Python script that generates random temperature and humidity values and prints an alarm status based on thresholds. The output shows 'Normal temperature and humidity of: 44 749 % alarm is off'. Below the code cell are three empty input fields labeled 'In []:'. The Windows taskbar at the bottom shows the time as 10:49 PM on 11/6/2022.

```
In [2]: import random

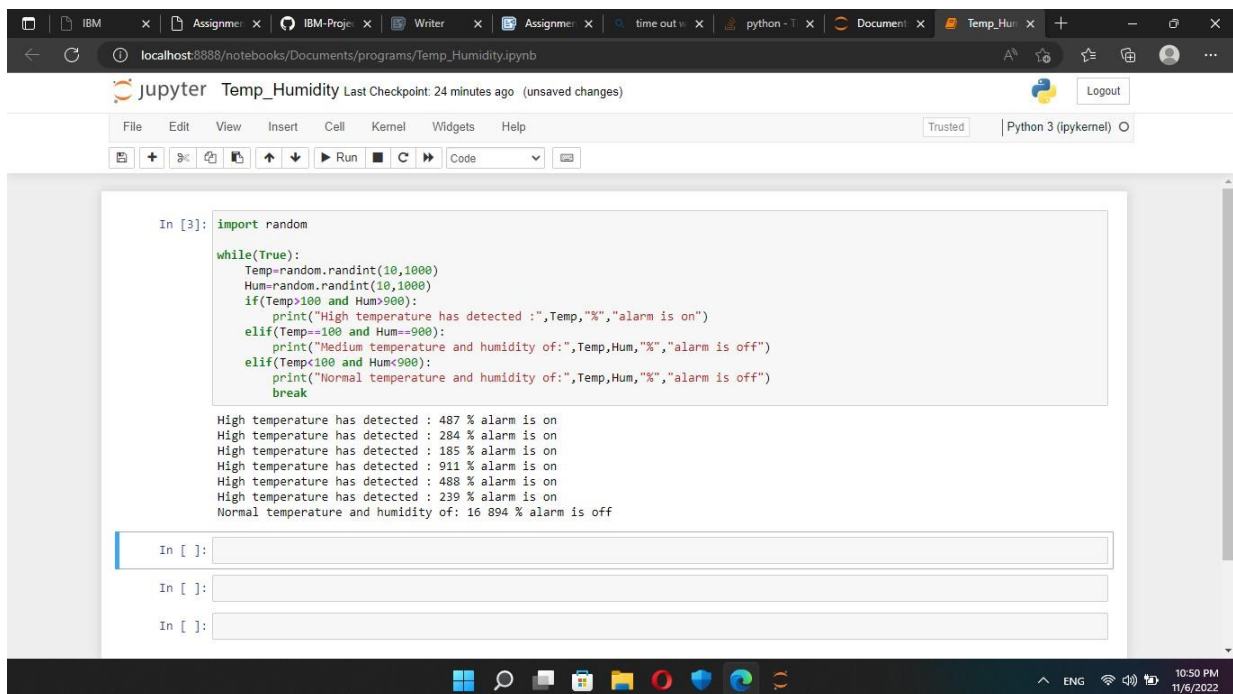
while(True):
    Temp=random.randint(10,1000)
    Hum=random.randint(10,1000)
    if(Temp>100 and Hum>900):
        print("High temperature has detected :",Temp,"%","alarm is on")
    elif(Temp==100 and Hum==900):
        print("Medium temperature and humidity of:",Temp,Hum,"%","alarm is off")
    elif(Temp<100 and Hum<900):
        print("Normal temperature and humidity of:",Temp,Hum,"%","alarm is off")
        break

Normal temperature and humidity of: 44 749 % alarm is off
```

In []:

In []:

In []:



A screenshot of the same Jupyter Notebook interface, showing the second execution of the program. The code cell 'In [3]:' contains the same Python script as in the first screenshot. The output shows multiple instances of 'High temperature has detected' followed by 'Normal temperature and humidity of: 16 894 % alarm is off'. Below the code cell are three empty input fields labeled 'In []:'. The Windows taskbar at the bottom shows the time as 10:50 PM on 11/6/2022.

```
In [3]: import random

while(True):
    Temp=random.randint(10,1000)
    Hum=random.randint(10,1000)
    if(Temp>100 and Hum>900):
        print("High temperature has detected :",Temp,"%","alarm is on")
    elif(Temp==100 and Hum==900):
        print("Medium temperature and humidity of:",Temp,Hum,"%","alarm is off")
    elif(Temp<100 and Hum<900):
        print("Normal temperature and humidity of:",Temp,Hum,"%","alarm is off")
        break

High temperature has detected : 487 % alarm is on
High temperature has detected : 284 % alarm is on
High temperature has detected : 185 % alarm is on
High temperature has detected : 911 % alarm is on
High temperature has detected : 488 % alarm is on
High temperature has detected : 239 % alarm is on
Normal temperature and humidity of: 16 894 % alarm is off
```

In []:

In []:

In []:

