

## ASSIGNMENT 2

**To detect an alarm in case of high temperature continuously**

DATE	25 - 09 -2022
TEAM ID	PNT2022MID49683
PROJECT NAME	Smart Crop Protection Systems IoT Based

**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):
```

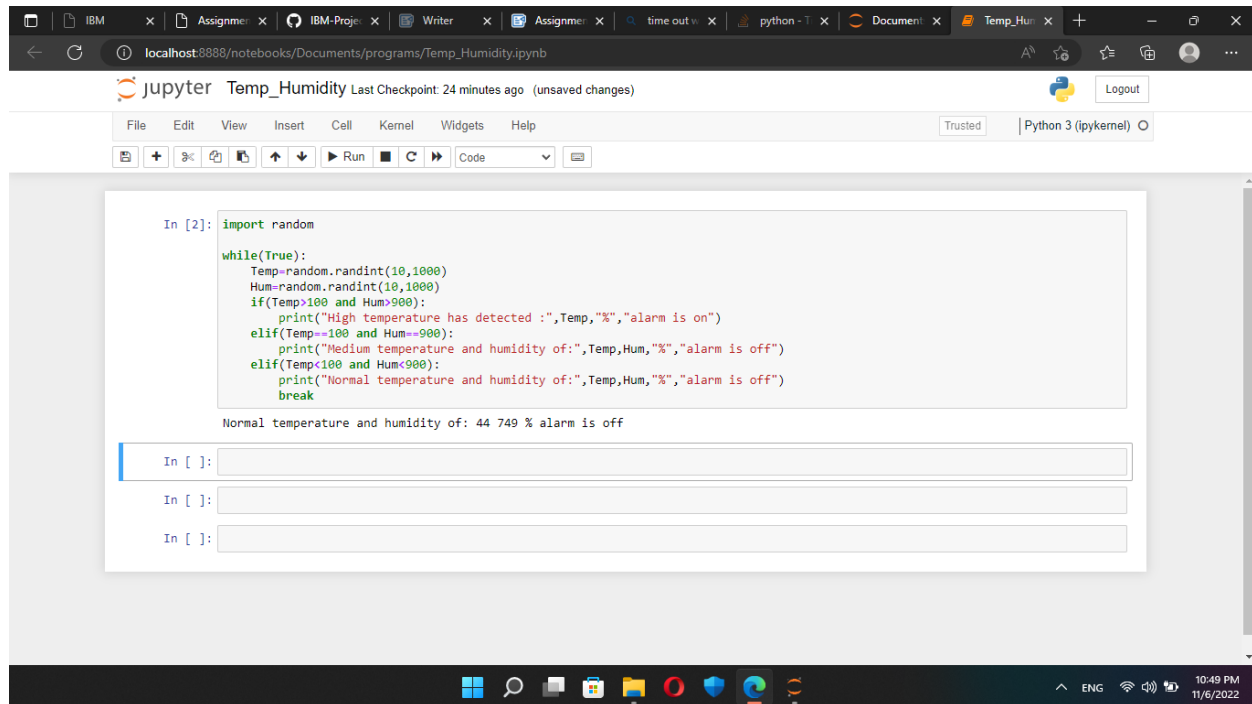
```
        print("Medium temperature and humidity of:",Temp,Hum,"%","alarm is off")
```

```
    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 contains a Python script that imports the 'random' module and enters a 'while(True):' loop. Inside the loop, it generates random temperature and humidity values (0-1000) and uses conditional statements to print messages: 'High temperature has detected', 'Medium temperature and humidity of:', or 'Normal temperature and humidity of:'. The output of the cell shows a single execution where the temperature is 44 and humidity is 749, resulting in the message '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

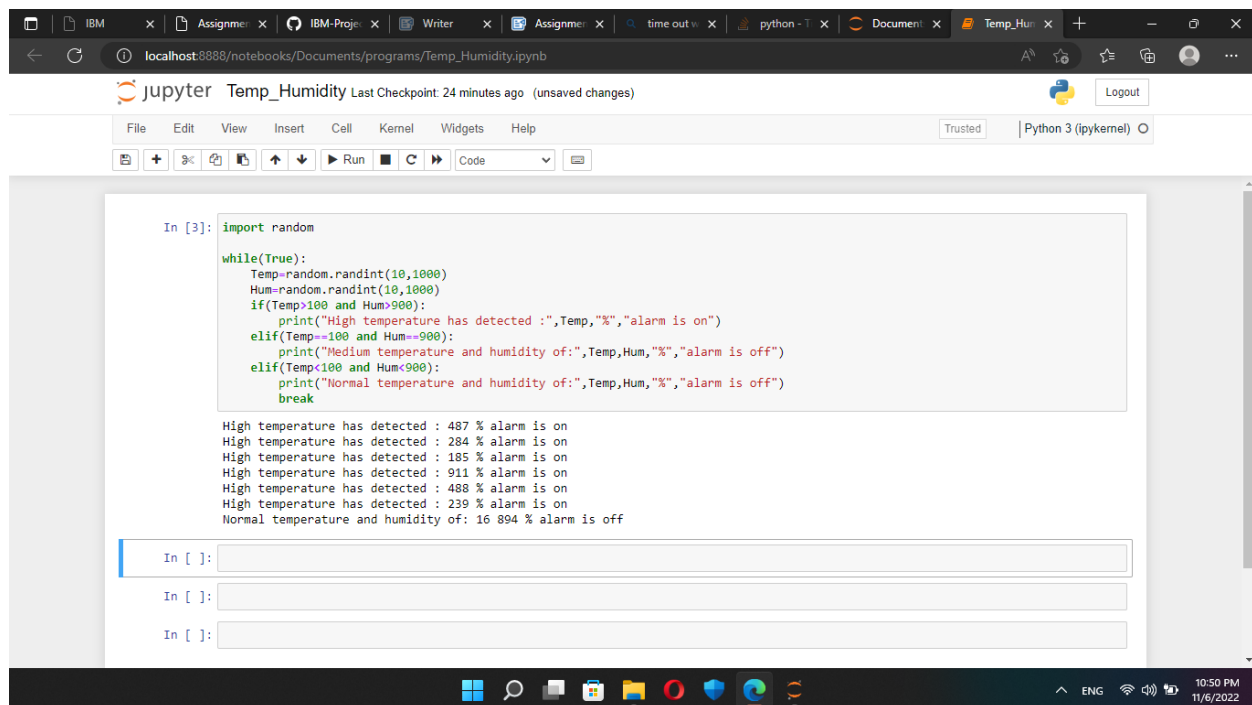
while(True):
    Temp=random.randint(10,1000)
    Hum=random.randint(10,1000)
    if(Temp>100 and Hum>900):
        print("High temperature has detected :",Temp,"%","alarm is on")
    elif(Temp==100 and Hum==900):
        print("Medium temperature and humidity of:",Temp,Hum,"%","alarm is off")
    elif(Temp<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 a Jupyter Notebook interface, similar to the one above. The code cell contains the same Python script. The output shows multiple executions of the simulation. The first five executions all result in 'High temperature has detected' messages with varying temperature values (487, 284, 185, 911, 488) and 'alarm is on'. The sixth execution results in '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 [ ]:

