

## **PROBLEM STATEMENT :**

Real Time River Water Quality Monitoring and Control System

## **DOMAIN :**

Internet of Things

## **Assignment 2:**

Assume u 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.

**By,**

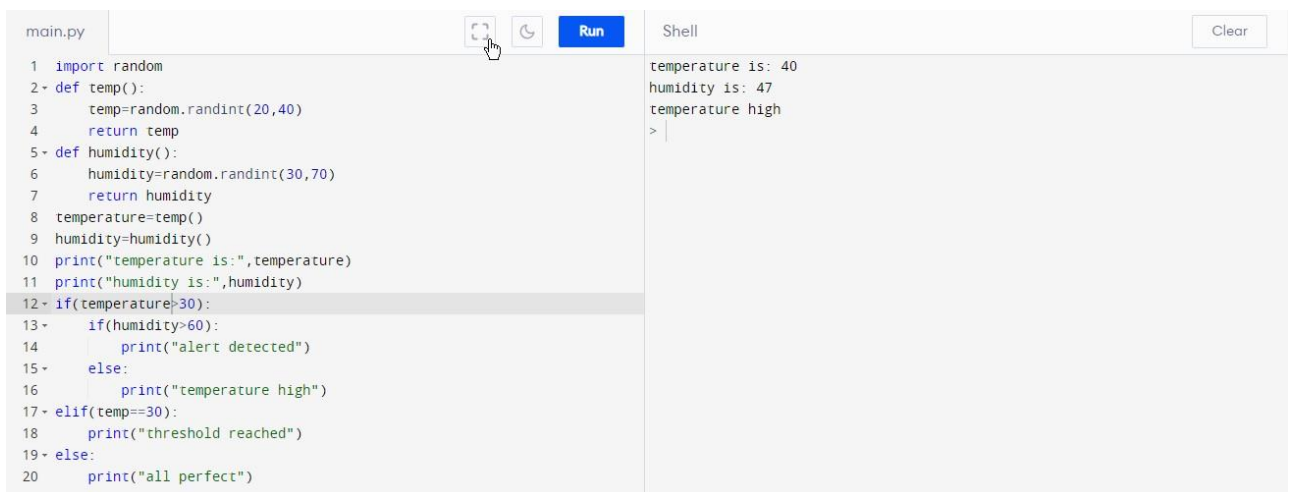
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## **PYTHON CODE:**

```
import random
def temp():
    temp=random.randint(20,40)
    return temp
def humidity():
    humidity=random.randint(30,70)
    return humidity
temperature=temp()
humidity=humidity()
print("temperature is=",temperature)
```

```
print("humidity is=",humidity)
if(temperature>30):
    if(humidity>60):
        print("alert detected")
    else:
        print(" temperature high ")
elif(temp==30):
    print("threshold reached")
else:
    print("all perfect")
```

## OUTPUT:



The screenshot shows a Python IDE with a file named 'main.py'. The code in the editor is as follows:

```
1 import random
2 def temp():
3     temp=random.randint(20,40)
4     return temp
5 def humidity():
6     humidity=random.randint(30,70)
7     return humidity
8 temperature=temp()
9 humidity=humidity()
10 print("temperature is:",temperature)
11 print("humidity is:",humidity)
12 if(temperature>30):
13     if(humidity>60):
14         print("alert detected")
15     else:
16         print("temperature high")
17 elif(temp==30):
18     print("threshold reached")
19 else:
20     print("all perfect")
```

The IDE has a 'Run' button and a 'Shell' window. The 'Shell' window displays the output of the program:

```
temperature is: 40
humidity is: 47
temperature high
> |
```

The 'Clear' button is also visible in the top right corner of the Shell window.

main.py

Run

temperature is: 40  
humidity is: 66  
alert detected  
> |

```
1 import random
2 def temp():
3     temp=random.randint(20,40)
4     return temp
5 def humidity():
6     humidity=random.randint(30,70)
7     return humidity
8 temperature=temp()
9 humidity=humidity()
10 print("temperature is:",temperature)
11 print("humidity is:",humidity)
12 if (temperature>30):
13     if(humidity>60):
14         print("alert detected")
15     else:
16         print("temperature high")
17 elif(temp==30):
18     print("threshold reached")
19 else:
20     print("all perfect")
```

