

PROBLEM STATEMENT :

IoT Based Smart Solution for Railways

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,

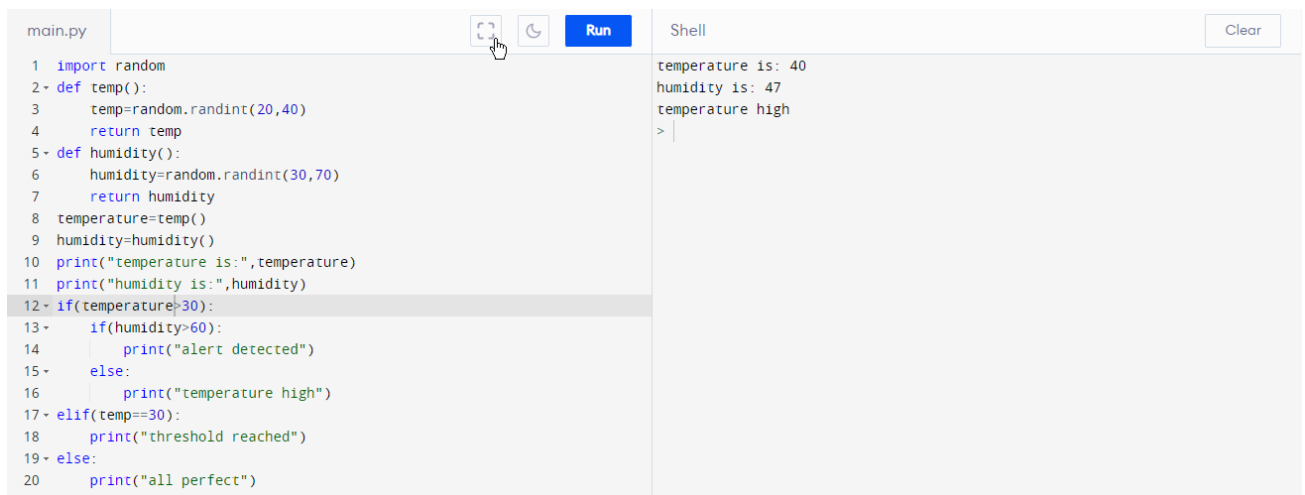
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PYTHON CODE:

```
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' and a 'Shell' window. The code in 'main.py' defines two functions, 'temp()' and 'humidity()', which return random values. It then uses these functions in a series of conditional statements to print messages based on the temperature and humidity values. The 'Shell' window shows the output of the program, which matches the expected output from the first code block.

```
main.py  Run  Clear
```

```
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")
```

```
Shell  Clear
temperature is: 40
humidity is: 47
temperature high
>
```

| | | |
|--|---|-------|
| main.py | <div><div>🔄</div><div>🌙</div><div>Run</div></div> | Shell |
| <pre>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")</pre> | <pre>temperature is: 40 humidity is: 66 alert detected > </pre> | |

